

**2016**

**Approved by New Shoreham  
Planning Board  
October 12, 2016**

**Adopted by New Shoreham  
Town Council  
November 16, 2016**

An aerial photograph of New Shoreham, Rhode Island, with a green overlay indicating the area covered by the Comprehensive Plan. The green area covers most of the town's landmass, including the central residential and commercial areas, and extends to the northern and southern parts of the town. The map shows buildings, roads, and green spaces. The title "NEW SHOREHAM COMPREHENSIVE PLAN" is overlaid on the map in a white box with blue brackets.

**[NEW SHOREHAM  
COMPREHENSIVE PLAN]**

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# ACKNOWLEDGEMENTS

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Appendix D: *Block Island Harbors Sea Level Rise Adaptation Study, 2013*

\*NOTE: APPENDICES ARE INCLUDED FOR REFERENCE PURPOSES ONLY AND ARE NOT INTENDED TO CONSTITUTE THE GOALS AND POLICIES OF THE COMPREHENSIVE PLAN.



# I. INTRODUCTION

New Shoreham 2016 Comprehensive Plan

## OVERALL VISION

**Through proactive planning and responsible stewardship, the residents and the Town of New Shoreham will ensure that growth and change on Block Island sustains the community we treasure and protects the resources on which it depends.**

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# INTRODUCTION

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## COMPREHENSIVE PLANNING

A comprehensive plan is a policy document which sets forth a vision for what a community aspires to be in 20 or more years and lays out a framework to achieve that vision. Comprehensive plans provide direction to private development and encourage sustainable community growth. They act as a guide for local planners, public officials and other decision-makers to assist them in achieving the desired goals of the community.

Municipalities in Rhode Island are charged with preparing local comprehensive plans that meet the requirements of the Comprehensive Planning and Land Use Regulation Act (RIGL 45-22) including consistency with the goals of the State.

*Comprehensive planning by municipal government is necessary to form a rational basis for the long-term physical development of a municipality and to avoid conflicting requirements and reactive land use regulations and decisions. (RIGL 45-22)*

The topics required to be addressed within a Comprehensive Plan include:

- NATURAL RESOURCES
- RECREATION
- HISTORICAL AND CULTURAL RESOURCES
- HOUSING
- ECONOMIC DEVELOPMENT
- AGRICULTURE
- SERVICES AND FACILITIES
- ENERGY
- WATER SUPPLY
- TRANSPORTATION
- NATURAL HAZARDS AND CLIMATE CHANGE
- LAND USE

## 2016 NEW SHOREHAM COMPREHENSIVE PLAN UPDATE

The Comprehensive Plan that follows represents the work of the New Shoreham Planning Board, with review and input by all town departments, various boards and commissions, civic and environmental organizations, and the community at large.

During meetings beginning in 2013, the Planning Board reviewed and developed the plan components as a rewrite of the plan adopted on March 2, 2009. The work done builds on that of the earlier version of the Comprehensive Plan, supplemented by analyses of current data, consideration of recent growth and its impacts, and an assessment of existing and new issues facing the community. This major plan update and

process was completed in accordance with the requirements of the Rhode Island Comprehensive Planning and Land Use Regulation Act, as amended in 2011.

The New Shoreham Planning Board held a public hearing on October 5, 2016 and October 12, 2016 and approved the plan on October 12, 2016. This was followed by a public hearing held by the Town Council on November 16, 2016. The New Shoreham Town Council adopted the New Shoreham Comprehensive Plan on November 16, 2016.

## AN OVERVIEW OF BLOCK ISLAND

By definition, Block Island is less than ten square miles of land surrounded by water, with the nearest mainland twelve miles away. The island's year-round population of just over 1,000 residents swells to over 20,000 during the island's busy summer tourist season. Pristine beaches, breathtaking bluffs, open space vistas lined with stonewalls, habitats of rare species, historic lighthouses and an 19<sup>th</sup> century village all combine to make Block Island the special place that it is.

**The uniqueness of this special and beloved place mandates that we serve as responsible stewards and proactively plan for and protect its future.**

Block Island's exceptionally beautiful natural and cultural landscapes are still remarkably intact after generations of use. The Nature Conservancy has recognized Block Island's uniqueness by naming it to its initial listing of the **"LAST GREAT PLACES"** referring to it as "New England's Island of Hope". This title reminds us that it is with a sense of urgency that we must plan and protect the island.

Those who call Block Island home understand that it is not only its exceptional natural environment, but also the remarkable social community that has evolved here, that makes it such a special place. The twelve miles of water that separates Block Island from the mainland give it its unique natural and social environment, and necessitate a high level of self-reliance by the community and cohesion among its residents.

What is also special about Block Island is what is not found here, such as franchise restaurants, chain stores and high rise hotels, and even a traffic light. Because cars cannot go very far or very fast, the roadway system is rural in nature, with many local access roads private and unpaved.

All these special qualities make Block Island an enormously popular destination for day trippers, boaters and vacationers, and as a result, a key resource in the State's tourism industry. The very reasons people love Block Island are the same reasons that make Block Island so different. Differences between Block Island and any other community in Rhode Island are not marginal, they are fundamental. Block Island must be considered one of the 39 cities and towns but its uniqueness must also be understood and respected by the State and its government.

## POLICIES FOR BLOCK ISLAND'S FUTURE

To ensure the vision for Block Island's future, a number of overarching policies have been identified and described below. These policies guide those that are contained in the various chapters of this Comprehensive Plan.

### **A. EXERCISE RESPONSIBLE STEWARDSHIP FOR THE NATURAL AND CULTURAL RESOURCES WHICH GIVE THE ISLAND ITS SPECIAL CHARACTER AND SIGNIFICANCE**

Coastal features, fresh water resources, vistas and open spaces, archeological and historic elements, and critical habitat combine to make Block Island the distinctive place that it is. Block Island's unique natural and cultural assets create an exceptional stewardship responsibility for the community on behalf of all those, now and in the future, residents and visitors alike, for whom these resources are of immense importance.

### **B. ENSURE THAT FUTURE RESIDENTIAL GROWTH IS COMPATIBLE WITH THE ISLAND'S TRADITIONAL LANDSCAPE**

Residential development, although inevitable, must nonetheless be done at an appropriate density and in a manner sensitive to the island's environment and history. This requires that Block Island continue in its efforts to protect valuable open space and habitat, while ensuring that the development that does occur is compatible in style and scale with the island's traditionally built environment.

### **C. ESTABLISH LAND USE REGULATIONS AND MANAGE PUBLIC INFRASTRUCTURE INVESTMENTS SO THAT FUTURE DEVELOPMENT CONTRIBUTES TO CREATING A MORE COMPACT, MIXED-USE, PEDESTRIAN-ORIENTED COMMUNITY**

Protecting the island's rural landscape goes hand in hand with encouraging growth and compactness in the village, which is the center for commercial and transportation activities. Maintaining and strengthening this landscape of a busy and compact village connecting two harbors and surrounded by low density development with large parcels of open space, requires that zoning and other regulations reflect desired uses and densities, and that future development be directed towards areas that are already served by public water and sewer.

### **D. MAINTAIN A VIBRANT YEAR-ROUND ISLAND COMMUNITY THAT MEETS RESIDENTS' ECONOMIC AND SOCIAL NEEDS AND MAKES PUBLIC HEALTH AND SAFETY A TOP PRIORITY**

Balancing the protection of natural and cultural resources with the accommodation of growth and economic opportunity must take place in the context of a desired year-round island community. In order to sustain a healthy year-round community, the following needs and services must be met:

- A STRONG PUBLIC SCHOOL SYSTEM THAT FULFILLS THE EDUCATIONAL NEEDS OF CHILDREN
- HIGH QUALITY COMMUNITY SERVICES, PARTICULARLY RELATING TO HEALTH AND PUBLIC SAFETY
- A DIVERSIFIED ECONOMY THAT PROVIDES YEAR-ROUND EMPLOYMENT OPPORTUNITIES
- ATTAINABLE YEAR-ROUND HOUSING DESIGNED FOR YOUNG PEOPLE AND FAMILIES WITH MODERATE INCOMES

### **E. STRENGTHEN THE COMMUNITY'S ABILITY TO MANAGE LOCAL AFFAIRS**

Access to and from Block Island, the public utilities serving it, and other aspects of island life that are shaped and regulated elsewhere are of vital importance to island residents and officials, as they affect both daily life

and the island's future. Whether it involves moped licensing, ferry rates and schedules, moorings in the Great Salt Pond, affordable housing or off-shore wind energy production, having a strong local voice in their management is of prime importance. The New Shoreham Town Administration and Town Council, now and in the future, must maintain close lines of communication with state legislators and officials.

**F. INCREASE RESILIENCY OF THE ISLAND TO CLIMATE CHANGE AND SEA LEVEL RISE IMPACTS BY IMPLEMENTING APPROPRIATE ADAPTATION MEASURES**

Sea level rise has the potential to cause dramatic impacts to Block Island's natural resources and infrastructure and as a result commerce and quality of life. With the likely potential of over six and a half feet of sea level rise by the end of this century, as predicted by NOAA (National Oceanic and Atmospheric Administration), several roads on the island may be inundated twice daily and access to Sandy Point could be compromised. Block Island must continue to plan for and implement adaptation measures to lessen the impacts of climate change and sea level rise.

**G. MOTIVATE AND ENABLE UPCOMING GENERATIONS TO BE A PART OF BLOCK ISLAND'S FUTURE, INCLUDING ITS TOWN GOVERNANCE, THROUGH EDUCATION, ECONOMIC DEVELOPMENT AND HOUSING EFFORTS, AND BY ENCOURAGING EARLY INVOLVEMENT IN MUNICIPAL OPERATIONS AND THE WORK OF LOCAL BOARDS AND COMMITTEES**

Block Island's history and sense of community is strengthened by providing a future on-island to the children who have grown up, summered, or who have family roots here. Educational initiatives, expanding employment opportunities beyond the tourism industry, and attainable housing are necessary to provide a future for the island's next generation. But this future also begins with town leaders facilitating an interest and active participation in town government by the island's youth.

**H. FOSTER BLOCK ISLAND'S STRONG COMMUNITY COHESION**

Few places have as strong and inclusive a sense of community as Block Island. This clearly has much to do with a shared appreciation of and love for the island. It is critical that the other goals of the Comprehensive Plan and the policies supported and actions taken to achieve them be consistent with upholding this community cohesion.



## 2. HISTORIC & CULTURAL RESOURCES

New Shoreham 2016 Comprehensive Plan

### VISION

**Block Island's collection of historic buildings, archeological sites, and magnificent landscapes will remain unspoiled for this and future generations. The Town will support efforts to preserve the island's rich history and to offer cultural enrichment opportunities for its residents and visitors.**

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# HISTORIC & CULTURAL RESOURCES

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## SUPPORTING DOCUMENTS

TOWN OF NEW SHOREHAM HISTORIC DISTRICT COMMISSION GUIDELINES  
[HTTP://NEW-SHOREHAM.COM/DOCS/HDC%20GUIDELINES%20REVISED%20VERSION%2011-15-2010.PDF](http://new-shoreham.com/docs/HDC%20GUIDELINES%20REVISED%20VERSION%2011-15-2010.PDF)

HISTORIC LANDSCAPES OF RHODE ISLAND. RHODE ISLAND HISTORICAL PRESERVATION & HERITAGE COMMISSION, 2001.

RHODE ISLAND HISTORICAL PRESERVATION COMMISSION, HISTORIC AND ARCHITECTURAL RESOURCES OF BLOCK ISLAND, RHODE ISLAND, 1991.

TRUEMAN, REBECCA. LANDSCAPE PATTERN AND CHANGE THROUGH INTEGRATION OF REMOTE SENSING AND STONEWALL FEATURE IDENTIFICATION. MS THESIS. UNIVERSITY OF RHODE ISLAND. KINGSTON, RI. 2015.

## OVERVIEW

With its historic lighthouses, vintage hotels, Victorian homes and farmhouses set on rolling lands lined with stone walls, Block Island has a stunning array of cultural features and historic sites. Together these sites define the island, provide the basis for its quality of life, serve as the source of pride for residents and provide recreation and leisure activities for island visitors. The following chapter identifies Block Island's historic and cultural resources, describes why they are significant, and looks to provide policies and actions to ensure the protection, preservation and enhancement of those resources.

*Together with its natural resources, the island's cultural and historic resources are the underpinnings of the local tourism economy and as such they must be preserved and enhanced in order for the island to remain economically healthy.*

Historic and cultural resources offer residents and visitors the opportunity to learn about their heritage and the history of Block Island and the nation. These cultural and historic resources also serve as major tourist attractions. Their preservation and enhancement is critical in maintaining the island's appeal to visitors and to the local economy. For all these reasons, it is a priority of the town to protect these historic sites and scenic landscapes and to sustain the quality of life and special character of the island.

## THE FOUNDING OF BLOCK ISLAND

In 1524, Giovanni da Verrazzano was the first European to report the existence of the island. The name Block Island comes from Adrian Block, one of the first European explorers to discover Block Island in 1614. Sixteen families from the colony of Massachusetts settled on Block Island in 1661 and in 1664, the island became part of the colony of Rhode Island. In 1672, the Town of New Shoreham was incorporated, named for Shoreham in Sussex County, England.

*Prior to European settlement the island was referred to as Manissess (translated to the Little God's Island) by the Narragansett Indians.*

## Historic & Cultural Inventories

The following section inventories and describes the significant historic and cultural sites of Block Island. See Map HCI Historic & Cultural Resources for locations of historic sites on Block Island.

### National Register of Historic Places

Authorized by the *National Historic Preservation Act* of 1966 and administered through the National Park Service, the National Register of Historic Places is the nation's official list of historic sites worthy of preservation. It is a tool for preserving historic properties as listed properties are given special consideration when the federal government is planning or giving aid to projects. Listing on the National Register also gives private citizens and public officials credibility when attempting to protect these resources. Listing does not however prevent the owner from altering, managing or disposing of the property.

*Current sites listed on the National Register of Historic Places for Block Island represent the island's long and diverse history as a Native American, farming, maritime, and resort community. Archeological and historic districts, two lighthouses, a government building, a farmhouse, and a hotel combine to tell the story of a unique place.*

### **THERE ARE TWO NATIONAL REGISTER HISTORIC DISTRICTS ON BLOCK ISLAND.**

#### **1. GREAT SALT POND ARCHEOLOGIC DISTRICT**

The shores of the Great Salt Pond have a long history of human use, as it once was a primary area of residence by Native Americans both before and after contact with Europeans. Due to its significance, the area was added to the National Register of Historic Places in 1990 and is referred to as the Great Salt Pond Archeological District.

#### **2. OLD HARBOR HISTORIC DISTRICT**

Lacking a natural harbor, it wasn't until the breakwater was built in 1873 that Block Island became a resort destination. Old Harbor's significance lies in its transformation from a landing site for an early

agrarian and fishing community to one of the most popular resorts in America. Today this dense walkable 19<sup>th</sup> century village remains defined against its surrounding rural countryside of farm cottages and vacation homes.

FOR THE PURPOSES OF THE NATIONAL REGISTER, THE OLD HARBOR HISTORIC DISTRICT INCLUDES ALL PROPERTY WITH A 2,000 FOOT RADIUS FROM THE VILLAGE SQUARE SET AT THE INTERSECTION OF WATER STREET, HIGH STREET, AND SPRING STREET.

**IN ADDITION TO THE TWO NATIONAL REGISTER HISTORIC DISTRICTS ON BLOCK ISLAND, THERE ARE FIVE NATIONAL REGISTER SITES.**

**1. U.S. WEATHER BUREAU STATION**

**SETTING:** Beach Avenue overlooking Old Harbor to the southeast and New Harbor to the northwest

**SIGNIFICANCE:** Built by the Department of Agriculture in 1903, the Neoclassical block house served as the meteorological observatory and observer's residence for 46 years. The former U.S. Weather Bureau Station was strategically positioned so that displayed signal flags could be visible from both Old and New Harbors. A new station was created at the recently-completed Block Island Airport in 1950 and the former U.S. Weather Bureau Station is today a private seasonal residence with its logs and records in the possession of the Block Island Historical Society.

**2. HYGIEIA HOUSE**

**SETTING:** On a narrow neck between Trim's Pond and Harbor Pond, Hygeia House is located on a small knoll on Beach Avenue and faces south overlooking Harbor Pond

Constructed in 1885 as the Seaside House, the structure was moved 150 yards south in 1907 to its current site associated with the name Hygeia Hotel Annex and underwent significant renovations. It is a large, clapboarded, wood-frame hotel building with a high mansard roof and wrap-around porch. Hygeia House is a good example of the small hotels that were an important part of the development and culture of Block Island. Constructed during the heyday of Block Island's resort development, the history of Hygeia House reflects some important patterns of the island's history as a vacation destination.

**3. PELEG CHAMPLIN HOUSE**

**SETTING:** Western side of the island on Rodman Pond Lane

**SIGNIFICANCE:** The Peleg Champlin House is a fine example of Block Island's vernacular architecture and one of the best-preserved houses from the Federal era on the island. The boundary of this national register site is approximately 3 acres and includes the private residence, barn and a portion of the original farmland. It is a simple, shingled, story-and-a-half, gabled-roofed, center-chimney house built circa 1820. The property with its 19<sup>th</sup> century barn overlooks Block Island Sound and is surrounded by rolling open fields defined by stone walls. Little is known of Peleg Champlin but by all estimations he

had a long and prosperous career as a farmer and he and his family were described as well-to-do and highly esteemed citizens.

The final two national register sites on Block Island are lighthouses.

## LIGHTHOUSES

*Located in the center of historic shipping lanes for vessels traveling north or west from New York City to New England, Block Island was recognized as an extremely dangerous location for mariners running aground on its shoals. It was not until 1829, however, that the effort was made to safeguard mariners with Congressional appropriation of funds and subsequent construction of a light at the northern tip of Block Island.*

*The need for a navigational aid on the south coast of Block Island remained and grew considerably during the 19th century due to an increase in maritime traffic and the development of the steamship and recreational passenger transport. In 1856 monies appropriated to build a lighthouse at the southeast coast of Block Island were instead used to relocate and reconstruct the North Light.*

*Disasters including the 1858 sinking of the steamship Palmetto motivated Block Island resident Nicholas Ball to mount an extensive campaign to alleviate the maritime hazards through improved navigation around the island. Ball's efforts ultimately led to the construction of the Southeast Lighthouse atop Mohegan Bluffs and also to Block Island's emergence as a steamship resort. The attractiveness of the lighthouse made it immediately popular and spurred a visit from the then President Ulysses S. Grant.*

*Today the island's two lighthouses are major points of interests drawing many visitors. Appearing regularly in photography and publications, they have become symbols of Block Island and the larger region.*

### **4. NORTH LIGHT**

**SETTING:** Sandy Point, the northern extremity of Block Island, approximately five miles from Old Harbor

**SIGNIFICANCE:**

North light is a granite lighthouse with iron tower and is the older of the two lighthouses on Block Island. The current lighthouse is built on the site of three former lighthouses which had been rendered useless following storms or shifting sands.

STATION ESTABLISHED: 1829

PRESENT LIGHTHOUSE BUILT: 1867

AUTOMATED: 1956

LIGHT DEACTIVATED: 1973

LIGHT REACTIVATED WITH ACRYLIC LENS: 1989

RELIGHTED WITH FRESNEL LENS AS A PRIVATE AID TO NAVIGATION IN OCTOBER 2010.

In 1973, the U.S. Fish and Wildlife Service acquired Block Island North Light and 28 surrounding acres. While the property remained an important refuge for wildlife, including home to many species of birds, little attention was paid to the lighthouse. As a result, the North Light deteriorated from a lack of maintenance and was subject to vandalism. In 1984, the Fish and Wildlife Service sold the lighthouse and two acres of land to the Town of New Shoreham for \$1 in exchange for an easement over the entire 28 acres to ensure it remain a wildlife refuge. The Town and the North Light Commission spearheaded the restoration of the lighthouse, using a combination of federal, state, local and private dollars. Major upgrades including restoration of the iron tower and roof have been completed. The original Fresnel lens was returned to the North Light during the restoration. A ceremony to relight the North Light as a private aid to navigation took place in October of 2010. The North Light Commission has the responsibility of maintaining the lighthouse and much of this work is done by the volunteer members themselves. The first floor of the North Light includes a museum and exhibit and is open to the public for self-guided tours during the summer five days a week. The exhibits include lifesaving apparatus, an array of Fresnel lenses, lanterns and buoys. The North Light Commission would like to pursue National Landmark District designation of the North Light along with its surrounding lands of former lighthouses, in order to advance preservation efforts.

### **5. SOUTHEAST LIGHTHOUSE**

**SETTING:** Mohegan Bluffs, Southeastern section of Block Island

**SIGNIFICANCE:** The Southeast Lighthouse is listed as a National Historic Landmark (1997), as well as being listed on the National Register of Historic Places. The Southeast Light was one of only two lighthouses in the nation of similar style and design built by the Light House Board and the only one which remains today (The Cleveland Light Station in Ohio was demolished in the early 20th century). Built during a high point of architectural sophistication for the Light House Board, it is a superb example of Victorian Gothic architecture. The Southeast Light is one of only 12 lighthouses in the United States with a functioning first-order Fresnel lens.

STATION ESTABLISHED: 1875

PRESENT LIGHTHOUSE BUILT: 1873-4

DEACTIVATED: 1990

RELIGHTED: 1994

CONSTRUCTION MATERIAL: BRICK

HEIGHT OF TOWER: 52 FEET

HEIGHT OF FOCAL PLANE: 261 FEET

The lighthouse, once over 300 feet from the edge of the bluff was in the 1990's only 55 feet from the edge due to erosion. The National Trust for Historic Preservation listed it as one of America's 11 most endangered structures of historic significance. A group of volunteers, the Block Island Southeast Lighthouse Foundation, raised approximately \$2 million in federal and private dollars to fund the relocation of the lighthouse. In August 1993, historic structure was moved to its present location about

300 feet from the bluff. Funds are being raised to complete restoration of the tower and keepers' quarters.

### *Additional Historic Structures Inventories*

A report published in 1991 by the Rhode Island Historical Preservation Commission, *Historic and Architectural Resources of Block Island, Rhode Island*, lists nearly 150 buildings of historic significance on Block Island.

With the assistance of grant funding, significant efforts were made in 2008 to inventory all historically significant structures on Block Island outside the boundaries of the Historic District Overlay. The work was conducted by Pamela Gasner of the Block Island Historical Society. Additional funding and work is needed to assist in completing the inventory and to expand the effort to include scenic roads and landscapes.

### *Additional Town-Owned Historic Properties*

#### COAST GUARD STATION

Located just inside the entrance to New Harbor, the Coast Guard building and the adjacent boathouse were built in 1935. In 1988, the Coast Guard ended year-round operations at the Block Island Coast Guard Station and limited them to the summer months only. In 1996, the station's buildings were given to the Town of New Shoreham with the stipulation that quarters be kept for Coast Guard members on duty during the summer. The buildings currently are in need of significant repair and restoration. The Town is currently exploring reuse options for the buildings.

#### THE BLOCK ISLAND SCHOOL

The Block Island School, constructed in 1933, replaced five one-room schoolhouses on the island.

#### THE TOWN OF NEW SHOREHAM HISTORIC MARKERS

Markers which represent and describe significant historical events and the history of Block Island include the Trustrum Dodge & Harbor Pond markers near The Beahead restaurant, the marker in front of the Surf Hotel, Settler's Rock at Sandy Point, and the Indian Cemetery on Center Road. In 1896, the Women's Christian Temperance Union erected the statue of Rebecca, which stands in the center of town.

#### SEARLES MANSION WALLS AND PIERS

The Edward and Mary Frances Hopkins Searles' 'Dream House', also named 'White Hall', was constructed between 1880-1890, and designed in the English Mannerist-style by English-born Architect Henry Vaughn. Only the foundations of this once magnificent house and retaining walls of the garden terrace remain along with the entrance gate 'tower' and several stone and brick piers along the drive, including a lone brick pier at the Southeast property corner.

Other noteworthy privately-owned historic properties on Block Island include the Spring House Hotel, The Surf Hotel, Beacon Hill Tower, and the World War II observation towers of which three remain. The Spring House Hotel, built in 1854, is the oldest hotel on the Island and is still open to the public.

## LANDSCAPES

The visual landscape on Block Island is a resource worthy of its own recognition and protection. As stated on page 17 of the Rhode Island Historical Preservation Commission's publication *Historic and Architectural Resources of Block Island*,

ON BLOCK ISLAND, MORE THAN IN MOST PLACES, THE ENTIRE ASSEMBLAGE OF HISTORIC AND NATURAL FEATURES HAS GREAT BEAUTY AND SIGNIFICANCE. ISOLATED BUILDINGS AND NATURAL FEATURES CAN BE SINGLED OUT, IDENTIFIED AND TREATED AS REMARKABLE, BUT THIS APPROACH WILL MISS THE MOST EXCEPTIONAL ASPECT OF BLOCK ISLAND – THAT THE ENTIRE ENVIRONMENT IS A VIVID HISTORIC LANDSCAPE OF GREAT APPEAL.

Another publication of the Rhode Island Historical Preservation Commission, *Historic Landscapes of Rhode Island*, highlights the following historic landscape on Block Island.

### **WEST SIDE ROAD**

#### **LEWIS-DICKENS FARM**

A rare and intact 200-acre farm. The house and outbuildings are typical mid-nineteenth-century structures, but the expansive agricultural landscape of the high plateau of gently rolling grasslands divided by low stone walls is extraordinary. In 1982, The Nature Conservancy with partners purchased 141 acres of the farm to preserve it in perpetuity as open space.

Other notable historic landscapes include: the Win Dodge foundations, Rodman's Hollow, Turnip Farm, Hodge Property, and the island's historic cemeteries.

### **Stonewalls**

A recent study utilizing GIS and aerial imagery estimates that there are over 160 miles of stonewalls on Block Island (Trueman, Rebecca, MS Thesis URI 2015). The study identified and compared stonewalls existing in 1900 and 2011. Matching stonewalls between the two years totaled 122 miles. Stonewalls removed between 1900 and 2011 totaled 95 miles of wall. Stonewalls built between 1900 and 2011 totaled 41 miles of which 43% were built parallel and within 10 meters of roads on the island. The 2011 stonewall dataset produced by this study is included on Map HC 1.

Additional regulations may be necessary to ensure protection of the remaining historic stonewalls on Block Island. Regulations should focus on protecting those historic stonewalls which are located within public view, along roads, and serve as boundary walls. Provisions could require that any alteration, relocation, or removal of historic stonewalls must first obtain approval of the Town and that new stonewalls be constructed using the methods and material of historic stonewalls found on Block Island. Several Rhode Island communities have stonewall ordinances which could serve as a model.

### CURRENT AND POTENTIAL FUTURE THREATS TO HISTORIC AND CULTURAL RESOURCES

*Current and potential future threats to the island's historic and cultural resources include:*

#### ***Lack of Formal Recognition or Protection***

Some of the island's most important historic resources have no form of recognition or protection.

#### ***Demolition by Neglect***

Demolition by neglect is a term used to describe a situation in which a property owner intentionally allows a historic property to suffer severe deterioration, potentially beyond the point of repair. Property owners may use this kind of long-term neglect to circumvent historic preservation regulations. It may sometimes also happen when a property owner abandons a historic property.

#### ***Development and Redevelopment***

Development not in keeping with the scale and character of the vernacular of Block Island could have negative impacts on the setting of historic sites or scenic landscapes. The traditional setting and surrounding landscape of a historic site is often as culturally significant and substantially enhances the enjoyment of that resource. As a popular tourism and second home destination, residential development pressures exist. Without proper regulatory measures in place inappropriate development could threaten the island's historic and scenic landscapes. Open space conservation efforts also will go a long way in mitigating negative impacts of development on the island's scenic landscapes.

#### ***Natural Hazards & Sea-Level Rise***

Some of the island's most significant historic structures are located within areas susceptible to inundation due to sea-level rise and storm surge including the North Light.

#### ***Fire Risks***

Historic structures are also at a higher risk for fire damage due to older electrical systems and threat of arson.

#### ***Invasive Species and Vegetation Growth***

Invasive species along with the normal growth of trees and shrubs can have a significant impact on historic landscapes, rural character and coastal views. Efforts should be made to identify the locations in which vegetation management should be pursued in order to protect scenic landscapes. Property owners, easement holders and the Town should work together to identify practical solutions including

regular mowing, restricting the planting of invasive species, and prohibiting the release of non-native flora and fauna.

## EXISTING LOCAL PROGRAMS RELATED TO THE MANAGEMENT OF HISTORIC AND CULTURAL RESOURCES

*The Town has already adopted many regulatory measures to protect historic and cultural resources including:*

### Historic District Zoning and Guidelines

Block Island enacted historic district zoning in 1982. The Historic Overlay zoning district covers the village and the two harbors, including all or most of the commercial and mixed use zones, as well as Residential C (See Map LU2 Zoning). Within the overlay zone, all building alterations and construction, as well as sign applications, must be reviewed and approved by the Historic District Commission (HDC). The Commission relies on the Secretary of Interior's Standards for the Treatment of Historic Properties in their review. The HDC also relies on local guidelines in evaluating applications for new construction, restoration, rehabilitation within the boundaries of the historic district. The current boundary of the historic district overlay should be reevaluated as there are properties within the district which are not historic and other properties along the peripheries of the district which are historic.

### Voluntary Inclusion in Historic District Zoning

The town also has an ordinance to allow property owners to voluntarily place their property within the historic district overlay zone and subject to the rules and regulations administered by the Historic District Commission. This process involves a zoning petition, public hearing and zoning amendment. At this time, two properties have pursued this voluntary inclusion and subsequent protection.

### Demolition Delay Ordinance

The Town has in place a Demolition Delay Ordinance which requires review and delay of the proposed demolition of buildings on the island, with the intent to protect historic buildings and encourage their adaptive reuse.

### Maintenance Standards / Avoiding Demolition through Owner Neglect Ordinance

The Town also has in place regulations to avoid a situation where a property owner defers maintenance beyond repair on a historic structure resulting in a request for demolition. The current "Avoiding demolition through owner neglect" section of the zoning ordinance provides the town with the authority to make the repairs directly and to charge back the owner by placing a lien on the property. However, the town may need to evaluate whether it is effective and efficient enough to address the issue or if increased monitoring or enforcement is needed.

## Massing and Size Restrictions for New Construction

Local regulations controlling massing, scale and size of structures were recently enacted to protect scenic landscapes and traditional architectural values of the island. The zoning regulations establish specific maximums for wall plane, building plane, building footprint and building volume. The town will continue efforts to discourage tear-downs of original homes and construction of homes out of character with the traditional vernacular of the island.

### **Private Resources for Historic Preservation**

#### **Preservation Easement Program**

A historic preservation easement is a legal agreement that ensures the historic and architectural qualities of a property will not be destroyed. Several regional non-profit organizations including Preserve RI offer historic easement programs as a means to protect historic properties and landscapes in perpetuity, ensuring that subsequent owners follow its terms. This is an important tool to encourage on Block Island because many structures of historic interest are located throughout Block Island and not just within the boundaries of the Historic District.

## Goals, Policies & Implementation Actions

**GOAL HCI: Safeguard the heritage of the town by preserving districts and other structures of historic or architectural value which reflect elements of Block Island’s cultural, social, economic, political, and architectural history.**

POLICY	ACTION	RESPONSIBLE PARTY	TIMEFRAME
HCI.A. Support efforts to identify and recognize historic and cultural resources	HCI.A.1. Seek National Register and National Historic Landmark designation of significant properties and explore designation of the island as a whole	Historic District Commission; Historic Society	Ongoing
	HCI.A.2. Seek National Register Landmark <u>District</u> designation for the North Light	North Light Commission	Short-term
	HCI.A.3. Complete survey of historic structures and sites beyond the boundaries of the Historic District	Historic Society	Long-term
	HCI.A.4. Conduct an island-wide inventory of scenic roads and landscapes	Historic Society	Long-term
HCI.B. Proactively ensure the safeguarding of historically significant structures and sites from natural hazards and the impacts of climate change including sea-level rise	HC.I.B.1. Document and photograph high tides and storm flooding impacts, bluff erosion, etc. in the vicinity of historically significant structures	Planning Board: Building, Zoning, Land Use and Planning; Town Manager	Ongoing
HCI.C. Protect and enhance the island’s Historic District	HCI.C.1. Encourage property owners to voluntarily add their property to the Historic District	Historic District Commission; Town Council	Ongoing
	HCI.C.2. Evaluate the current boundaries of the Historic District	Historic District Commission; Town Council	Short-term
	HCI.C.3. Increase monitoring and enforcement efforts of neglected historic properties	Building, Zoning, Land Use and Planning	Ongoing

**GOAL HC2: PRESERVE HISTORIC AND SCENIC LANDSCAPES**

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
HC2.A. Protect the rural character and coastal views of the island's scenic landscapes	HC2.A.1. Work with partners to identify and implement solutions to control vegetation growth and invasive species	Building, Zoning, Land Use and Planning; Land Trust; Town Council	Medium-term; Ongoing
HC2.B. Ensure that new development is sensitive to the look and feel of the island and is not disruptive to the special character of the place	HC2.B.1. Review local regulations to ensure that the scenic and rural character of roads are protected and that development is concealed to the extent possible from public travelways and vantage points	Building, Zoning, Land Use and Planning; Planning Board	Short-term
HC2.C. Protect the island's historic hand-built stonewalls	HC2.C.1 Adopt a stonewall ordinance that ensures protection of stonewalls at public vantage points	Planning Board; Town Council	Long-term

**GOAL HC3: SHARE THE ISLAND'S HISTORY AND SUPPORT CULTURAL ENRICHMENT OPPORTUNITIES**

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
HC3.A. Promote the use of historic sites for the education and pleasure of the community and its visitors		Town Council; Town Manager Tourism Council; Historic Society	Ongoing
HC3.B. Promote and enhance Block Island's identity as a destination of cultural and historic assets		Town Council; Town Manager; Tourism Council; Historic Society	Ongoing

**Timeframes:** Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

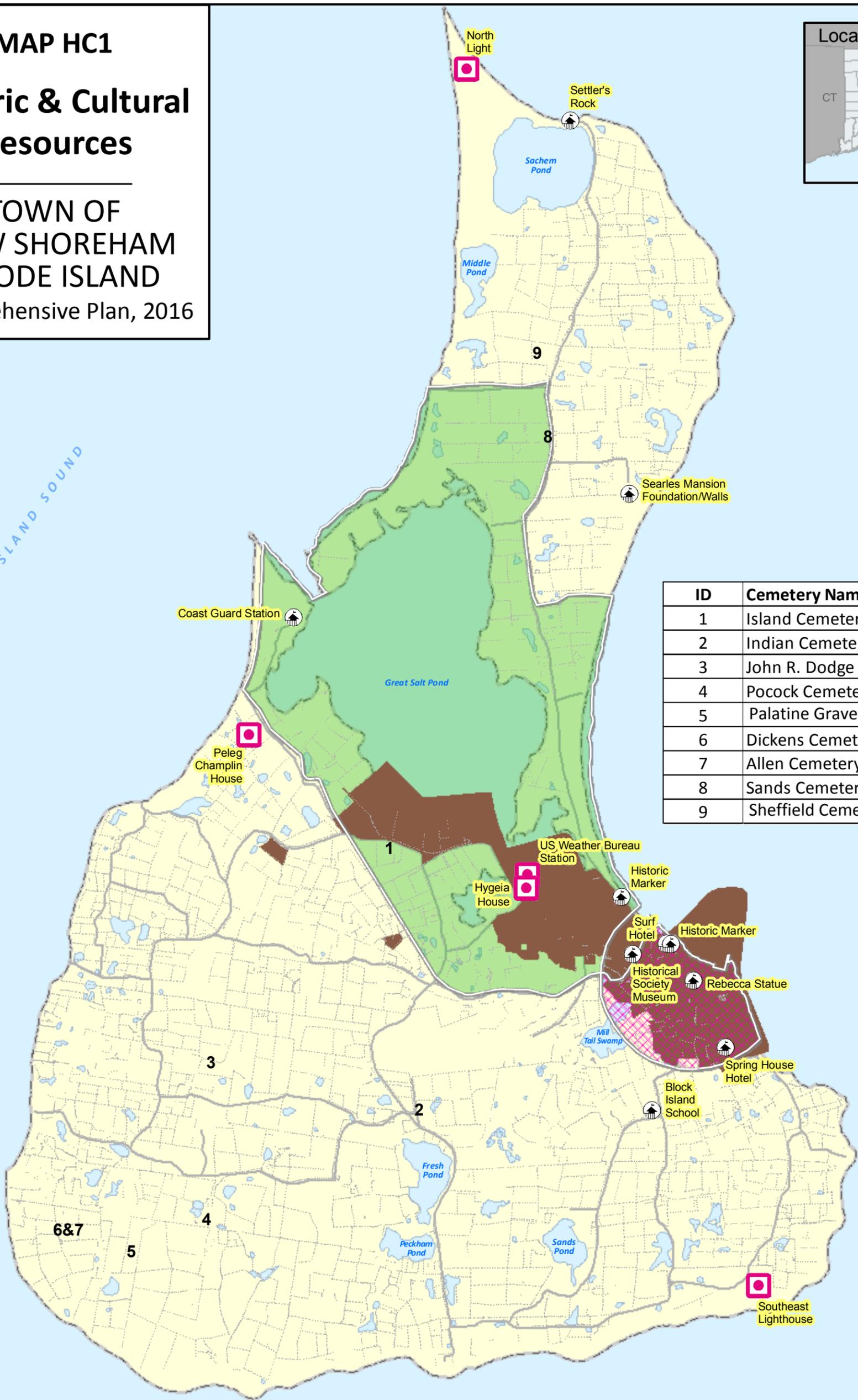
# MAP HC1

## Historic & Cultural Resources

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



BLOCK ISLAND SOUND



ID	Cemetery Name
1	Island Cemetery & Annex
2	Indian Cemetery
3	John R. Dodge Cemetery
4	Pocock Cemetery
5	Palatine Graves
6	Dickens Cemetery
7	Allen Cemetery
8	Sands Cemetery
9	Sheffield Cemetery



### Legend

- Local Historic Zoning District
- National Register of Historic Places
- Old Harbor Historic District
- National Register Sites
- Other Notable Historic Sites
- Stonewalls
- ID Cemeteries
- Roads
- Water



**RIGIS**

11/2016; AR



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## 3. NATURAL RESOURCES

New Shoreham 2016 Comprehensive Plan

### VISION

**Preservation, protection and restoration of the natural habitats and populations on Block Island will continue to be a priority of the Town of New Shoreham and its citizens. Land conservation efforts, local government practices, and education of residents and visitors will ensure that the island remains ecologically healthy and attracts those who value its natural scenic beauty.**

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# NATURAL RESOURCES

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## SUPPORTING DOCUMENTS

Rhode Island Wildlife Action Plan, 2015, Prepared by Terwillinger Consulting Inc. for The Rhode Island Chapter of the Nature Conservancy for The Rhode Island Department of Environmental Management.

The Rhode Island Sea Level Affecting Marshes Model (SLAMM) Project, Summary Report, March 2015.

## INTRODUCTION

The Nature Conservancy has identified Block Island as *“the most ecologically significant place in Rhode Island and one of the most ecologically important places in North America.”*

With its dramatic bluffs, sandy beaches, and coastal ponds, Block Island’s natural resources are the reason it is a major tourism destination. These significant natural resources are part of what makes Block Island a special place and serve as the foundation for the quality of life of residents. The island’s natural resources provide scenic beauty, leisure and recreational opportunities, and also serve as the major driver of the local economy.

## Habitat Areas

Block Island is one of the most ecologically significant places in Southern New England. It has a variety of high quality terrestrial and wetland habitats which include farmlands, open fields and grasslands, freshwater wetlands, coastal shrublands, beach and dune complexes, coastal ponds, rocky shorelines, freshwater ponds, vernal ponds, and salt marsh. These habitats support a rich variety of plant and animal species, including about 40 rare and endangered species. Unique natural features include dramatic coastal bluffs and Rodman’s Hollow a meltwater channel.

### **Freshwater and Wetland System**

There exists a unique abundance of freshwater ponds on Block Island. Ponds, swamps and freshwater marshes provide high quality habitat areas for a variety of fish and wildlife, as well as recreational areas for birdwatchers and other outdoor enthusiasts. Vernal ponds are arguably the most important freshwater habitat on Block Island with their immense biodiversity. The diving beetle, fairy shrimp, red-spotted newt (salamander), and countless insects including dragonfly and damselfly inhabit vernal ponds on Block Island. The island’s freshwater resources also create scenic landscapes such as the view of Spring House Pond, Sachem Pond, Franklin Swamp, Champlin Farm Pond, and Seneca Swamp. Sands Pond and Fresh Pond contribute to the island’s EPA designated sole source aquifer upon which both public and private water

supplies depend. *Map NRI Surface Water and Aquifers* provides a visual of the freshwater resources of Block Island including wellhead protection areas.

Maintaining strict regulatory standards for wetland setbacks from dwellings and septic systems are critical to safeguarding both surface water resources and groundwater, as well as water quality of the Great Salt Pond. Recent State legislation provides for a unified wetlands setback statewide. New Shoreham is one of six Rhode Island communities that are at risk of having reduced setbacks and buffers due to this legislation. Although specific regulations are still in development by RIDEM, New Shoreham is concerned that this legislation and resulting standards may not adequately protect the significant and fragile ecosystems on Block Island. The new regulations will include a procedure for municipalities to petition to increase the jurisdictional areas for environmentally sensitive areas, something that the Town should consider.

#### **Coastal Shrublands**

Block Island has some of the best and most extensive shrublands along the Atlantic coast. The key species of native shrubs include arrowwood, shadbush, chokeberry, bayberry, winterberry, and others. Shad is an important shrub for nesting and for its rich food source. The majority of species of migratory songbirds and breeding birds on Block Island rely heavily on this coastal shrub habitat. While shrub habitats are found in many places around the Island, the large tracts on the north end are most important to fall migratory birds. Clayhead Preserve is a popular birdwatching location on the island for migratory songbirds including the Magnolia Warbler and Canada Warbler. Beyond being an important habitat, the coastal shrubland on Block Island contributes to the scenic quality of Block Island's landscapes by softening the aesthetic impacts of development.

#### **Coastal Ponds and Salt Marshes**

Salt marshes around the Great Salt Pond provide a habitat for a diversity of species including birds, fiddler crabs, horseshoe crabs, ribbed mussels, grass shrimp, soft shelled clams, quahogs, periwinkles and seaweed. Two of the most well-known and visited salt marshes on Block Island are Andy's Way and Mosquito Beach.

#### **Beaches and Dunes**

Dunes serve as critical natural features because they provide protection from flooding and erosion by wind and waves. Coastal dunes are also sensitive habitat areas for species such as the dusty miller, meadow voles, sea rocket and beach plum. The dunes of Block Island serve as important nesting area for birds and are a feeding area for barn owls. Dune preservation efforts by the Town and its partners should be continual. In an effort to stabilize the dunes, a private-public partnership regularly transplants American beach grass to exposed dune faces on Block Island. Additional strategies should be identified and implemented to ensure that people do not encroach on this important and sensitive habitat.

#### **Forest Lands**

Block Island was heavily forested prior to settlement in the mid 1600's according to several accounts by early navigators. Once the settlers arrived, the forest was cut for lumber for homes, farm structures, boats, fences, fuel and other uses. The majority of Block Island's landscape was open agricultural fields from then on for several centuries until farming declined considerably in the mid-1900's. Inactive fields became covered with

native shrub species mentioned above. Block Island now has some small patches of forest dominated by black cherry, and some forest-like areas dominated by large shad. There are a few isolated forest patches of large native black gum or tupelo trees in the middle of the island near swamps north and south of the airport, and one small patch of American beech in the same area. Another native tree species, the red maple, is found in most parts of the island but usually isolated to one or two individual trees in any location.

Currently, no properties on Block Island are classified as forest under the State Farm, Forest and Open Space law that allows such land meeting certain standards to be taxed based on use rather than potential market value.

See *Map NR2 Habitats* which displays lands classified as forested and wetlands under the Ecological Communities Classification data from RIGIS.

### **Farmlands**

A small number of working farms remain on the island, as well as lands separate from farms which are used for agriculture. There are also conserved lands with agricultural potential which are currently benefiting the scenic quality of the island and contributing valuable habitat for many species. See Economic Development Chapter for additional discussion on agriculture and maps of existing agricultural operations and agricultural soils on Block Island.

## Endangered Species

### BLOCK ISLAND IS HOME TO MANY FRAGILE SPECIES INCLUDING OVER 40 SPECIES WHICH ARE ON THE FEDERAL OR STATE ENDANGERED SPECIES LIST.

More than 50 species of birds nest on Block Island including the American oystercatcher, black-crowned night heron, and grasshopper sparrow. Some of these species of birds are on the state-endangered species list.

The American Burying Beetle, Block Island's rarest animal, is found in only 5 places in the world. Threats to the American Burying Beetle include outdoor lighting, pesticides, loss of open field habitat, and a number of other factors. The population is currently stable on Block Island due primarily to the protection of large tracts of open land in the southwestern portion of the Island. The burying beetle was recently named Rhode Island's official state insect.

Many of the other rare and endangered species found on Block Island require open field habitats, including the barn owl, Block Island meadow vole, northern blazing star, and savannah sparrow. Protection of the declining monarch butterfly will require management of open fields for monarchs to ensure there are both breeding habitat and nectar sources.

## An Assessment of Issues Facing Significant Natural Resources

### **Stormwater Pollution**

Pollution remains a major threat to the island's natural resources. Increased impervious surfaces associated with development along with failing septic and wastewater systems contribute to a degradation of water quality on the island. The Town is currently exploring strategies to control stormwater impacts on the Great Salt Pond and its watershed. For additional information see the Great Salt Pond Chapter and Services and Facilities Chapter.

Natural riparian buffers around fresh and saltwater resources can play an integral role in both protecting these resources and providing habitat for wildlife. The use of local land use authority to preserve or restore natural riparian buffers is critical to the overall health of watershed systems and to public health and should be explored on Block Island.

The use of synthetic pesticides is prohibited on town property and should be strictly enforced. Establishing strict standards on the use of nitrogen fertilizers and pesticides on private property, and limiting other sources of nitrogen inputs in the watershed of the Great Salt Pond, should also be considered. The spawning and nursery functions of Great Salt Pond are well documented; nitrogen, pesticide and herbicide runoff should be prevented from entering this important and vital system via waterfront properties and the watershed.

### **Natural Hazards and Sea Level Rise**

Climate change is a potential major threat to marine and wildlife population and habitats on Block Island. It is anticipated that sea level rise will have a substantial impact on the coastal features, marshes, wetlands and coastline habitat on Block Island. CRMC reports that based on the Sea Level Affecting Marshes Model (SLAMM), Block Island is projected to lose 3.6, 49.6 and 61.4 acres with 1, 3, and 5 feet of sea-level rise, respectively. Considering that the island has a total of about 72 existing coastal wetlands as of 2010, these projected losses are very significant and would result in substantial habitat loss. SLAMM Project report and maps for all Rhode Island can be found on the CRMC website at: [www.crmc.ri.gov/maps/maps\\_slamm.html](http://www.crmc.ri.gov/maps/maps_slamm.html). More frequent and severe storm events will also contribute to an acceleration of bluff erosion and dune destabilization. See the Great Salt Pond and Natural Hazards & Climate Change sections for additional discussion and Map NHC4 SLAMM.

### **Bluff Erosion**

One of Block Island's greatest natural resources is its remarkably scenic coastal bluffs. Bluffs are subject to continuing erosion by the natural forces of gravity, water, and wind. However, human activity such as the development of roads and walking paths can increase the possibility of erosion and bluff instability. Added weight on the bluff face by objects and structures, removal of vegetation, and stormwater runoff can also contribute to increased destabilization and erosion rates. Proper land management practices including generous development setbacks from bluffs can help to ensure that erosion rates are not dramatically increased by human activity and development.

### **Invasive Species**

The key threat to grasslands, open fields, ponds, and shrubland habitats is habitat succession and colonization by invasive species like black swallowwort, multiflora rose and autumn olive. Other species of concern which can dominate habitats when not controlled are mile-a-minute vine, bittersweet, Japanese Knotweed, Black Swallowwort, bamboo and many species of invasive ornamental grasses. Overgrowth of these species will shade out and eventually kill native shrubs. Efforts should be made to protect and maintain large stands of native shrubs and even smaller patches if of high quality. The Town should also consider regulations regarding land clearing, invasive species control and pesticide use. Grasslands and open fields require continuous or periodic maintenance by mowing or grazing to keep from growing into shrublands and eventually forests. The planting of ornamental bamboo and ornamental grasses is becoming a matter of concern and should be regulated.

### **Deer Population**

Block Island did not historically have a large deer population. The last valid record of deer existing on Block Island was around the time white settlers arrived in 1661. At the request of local hunters, the State reintroduced deer to Block Island in 1967 bringing over four does and a buck on the ferry. With mild winters, acres of low-lying brush in which to hide, and no natural predators on Block Island other than man, the deer thrived. There is concern that an overpopulation of deer results in negative impacts on the local ecosystem. To address this concern, Block Island provides permits to local hunters in order to control the deer population. The hunting season has been lengthened and once-stringent permitting procedures have been loosened. The Town's recent policy of payment of bounty on deer has been successfully implemented. Some argue for eradication of deer on Block Island, however, the proximity of houses and large tracts of land where hunters are not allowed provide deer a safe haven. Others argue total eradication is not necessary in order to protect the environment.

Compounding the issue is the high incidence of Lyme disease on the island. This is a major public health issue and a factor in decision-making related to controlling the deer population on Block Island. The Town currently has in place a Deer Task Force whose work is dedicated to addressing the deer population and control measures on Block Island. This is a controversial issue and additional discussion and consensus building may be necessary.

### **Human Intrusion**

On Block Island, human intrusion and disturbance especially along beaches and dunes pose a threat to habitat quality and natural populations. The island's many visitors must be educated on the importance of remaining off dunes, not disturbing wildlife and not polluting or littering. The use of snow fencing to keep people off the dunes and to direct pedestrians over the dunes to the beach should be a priority for the Town.

There is a concern that incremental approval of individual beach access structures, particularly stair structures, may lead to a cumulative degradation of the island's scenic resources. Local regulations should be crafted and adopted to protect the aesthetic qualities of Block Island's natural coastline and applications for beach access structures should be evaluated on the basis of multiple considerations including visual impacts.

The coastline should be inventoried and areas where beach access structures may not be appropriate due to safety concerns, sensitive ecological conditions, or visual impacts on significant scenic resources should be identified for further protection within the local regulations. In crafting regulations, consideration and preference should be given to public beach access structures that serve greater numbers of people.

#### TECHNIQUES IN PLACE FOR MINIMIZING NEGATIVE IMPACTS OF DEVELOPMENT ON SIGNIFICANT NATURAL RESOURCES

Land conservation is arguably the single greatest strategy in achieving natural resource protection goals. The island's robust program of land conservation began in 1972 with the establishment of the Block Island Conservancy. As of 2015, 2,210 of the island's 6,076 acres (which excludes coastal ponds – the Great Salt Pond, Cormorant Cove, Trims Pond and Harbor Pond) are protected as open space through public or non-profit ownership or conservation easement. Another estimated 600 acres consist of wetlands or waterbodies and cannot be developed. Current records and calculations indicate that 44.8% of the island's land area is conserved, 36.4% through deeded protection and 9.8% through regulation.

MAP NR3 *Conserved Land* identifies the protected lands by ownership category on Block Island. This includes land owned by the federal government, the State of Rhode Island, and the Town of New Shoreham; a number of conservation organizations including The Nature Conservancy, Audubon Society of Rhode Island, Block Island Conservancy, Block Island Land Trust and the Ocean View Foundation; and privately held lots with conservation easements or development restrictions. See Recreation and Conserved Areas Chapter for additional discussion on protected open spaces and priorities for land preservation.

In addition to land conservation, many town codes and regulations have been adopted for the purposes of natural resource protection. Chapter II Natural Resources of the Town Code establishes the Conservation Commission and wildlife refuge areas, protective measures for groundwater and surface water including wetlands, and soil erosion and sediment control measures.

Within the Town's Zoning regulations is a Coastal Overlay which provides a high level of protection for critical coastal features by greatly restricting development a minimum of 100 feet from delineated coastal features. Additionally, a Waterfront Overlay Zone provides protection to the island's harbors and ponds by restricting uses in designated zones.

Within the Town's Subdivision regulations is the option for Flexible Design Residential Development which provides an alternative to conventional style subdivisions in that a significant portion of the land is set aside as permanently protected open space. This option provides for the same number of house lots at reduced sizes to allow greater design flexibility in order to increase protection of natural resources.

## Goals, Policies & Implementation Actions

### GOAL NRI: Mitigate adverse impacts on the island's natural resources due to human development and activities

<u>Policy</u>	<u>Action</u>	<u>Responsible Party</u>	<u>Timeframe</u>
NRI.A. Direct new development to areas and locations that minimize the potential for negative environmental impacts	NRI.A.1. Review new State wetlands setback regulations and determine if additional protection measures are required to protect the quality and habitat of the wetlands systems on Block Island	Building, Land Use, & Planning; Planning Board; Conservation Commission; Town Manager; Town Council	Short-term
	NRI.A.2. Develop zoning overlay district with special use permit for high hazard areas that include storm surge inundation, sea level rise and SLAMM projected potential salt marsh areas	Building, Land Use, & Planning; Planning Board; Town Council	Medium-term
NRI.B. Focus land protection efforts on critical natural resources	NRI.B.1. Identify undeveloped land containing habitats of endangered species and/or having a high potential for coastal wetland migration	Land Trust; Town Council	Medium-term
	NRI.B.2. Explore issues related to reforestation and identify potential lands where reforestation may be a good option	Land Trust; Conservation Commission; Planning Board; Town Council	Long-term
NRI.C. Ensure open fields and shrublands remain high quality habitats	NRI.C.1. Develop informational guides for property owners on how to manage open fields for wildlife and the best cutting practices to achieve various desired results	Land Trust; Planning Board; Conservation Commission	Long-term
NRI.D. Control invasive species by reducing their density and abundance to a level which does not compromise the integrity of the ecosystem and allows native species to thrive	NRI.D.1. Develop an invasive species management plan for Town-owned open space properties	Conservation Commission; Planning Board; Recreation	Long-term
	NRI.D.2. Investigate ordinances relating to the control of invasive flora and fauna	Conservation Commission; Planning Board	Medium-term

NR1.E. Promote Environmental Stewardship	NR1.E.1. Develop an education program aimed at visitors and renters to promote good environmental behavior and responsible stewardship	Tourism Council; Conservation Commission; Recreation	Medium-term
	NR1.E.2. Institute programs at the Block Island School with partners that encourage outdoor learning, natural resources preservation and stewardship among the next generation	School Department	Ongoing

**GOAL NR2: Protect the water quality and habitat of coastal ponds and marshes and the freshwater resources of Block Island**

<u>Policy</u>	<u>Action</u>	<u>Responsible Party</u>	<u>Timeframe</u>
NR2.A. Manage stormwater volumes and reduce pollutants	NR2.A.1. Investigate strategies to reduce and limit impervious surface on the island and establish a policy identifying an upper limit on the total percentage of impervious cover on the island to be incorporated in the next update of the Comprehensive Plan	Building, Land Use, & Planning; Planning Board; Town Council	Long-term
	NR2.A.2. Enact guidelines and institute an education campaign on the appropriate use of fertilizers, pesticides and herbicides; Town should serve as a model of best practices	Conservation Commission; Recreation; Building, Land Use, & Planning; Planning Board; Town Manager; Town Council	Medium-term
	NR2.A.3. Review and strengthen current regulations regarding LID (low impact development)	Building, Land Use, & Planning; Planning Board; Town Council	Medium-term

	NR2.A.4. Review and strengthen landscaping requirements to ensure low maintenance native vegetation that minimizes the need for watering and use of lawns, fertilizers, and pesticides are used for all new development projects	Building, Land Use, & Planning; Planning Board	Medium-term
NR2.B. Preserve and restore naturally buffered areas along coastal ponds and freshwater resources	NR2.B.1. Draft and adopt regulations to require the preservation or restoration of naturally buffered areas along the Great Salt Pond and significant freshwater ponds	Building, Land Use, & Planning; Planning Board; Town Council	Short-term
	NR2.B.2. Determine appropriate minimum buffer width and establish incentives for property owners who maintain a vegetated buffer in excess of the minimum	Building, Land Use, & Planning; Planning Board	Short-term
	NR2.B.3. With partners, conduct an inventory of vernal ponds; enforce buffers and control use of fertilizers in these area	Land Trust, Conservation Commission; Building, Land Use, & Planning; Planning Board	Long-term

**GOAL NR3: Protect Block Island's natural scenic coastline and features**

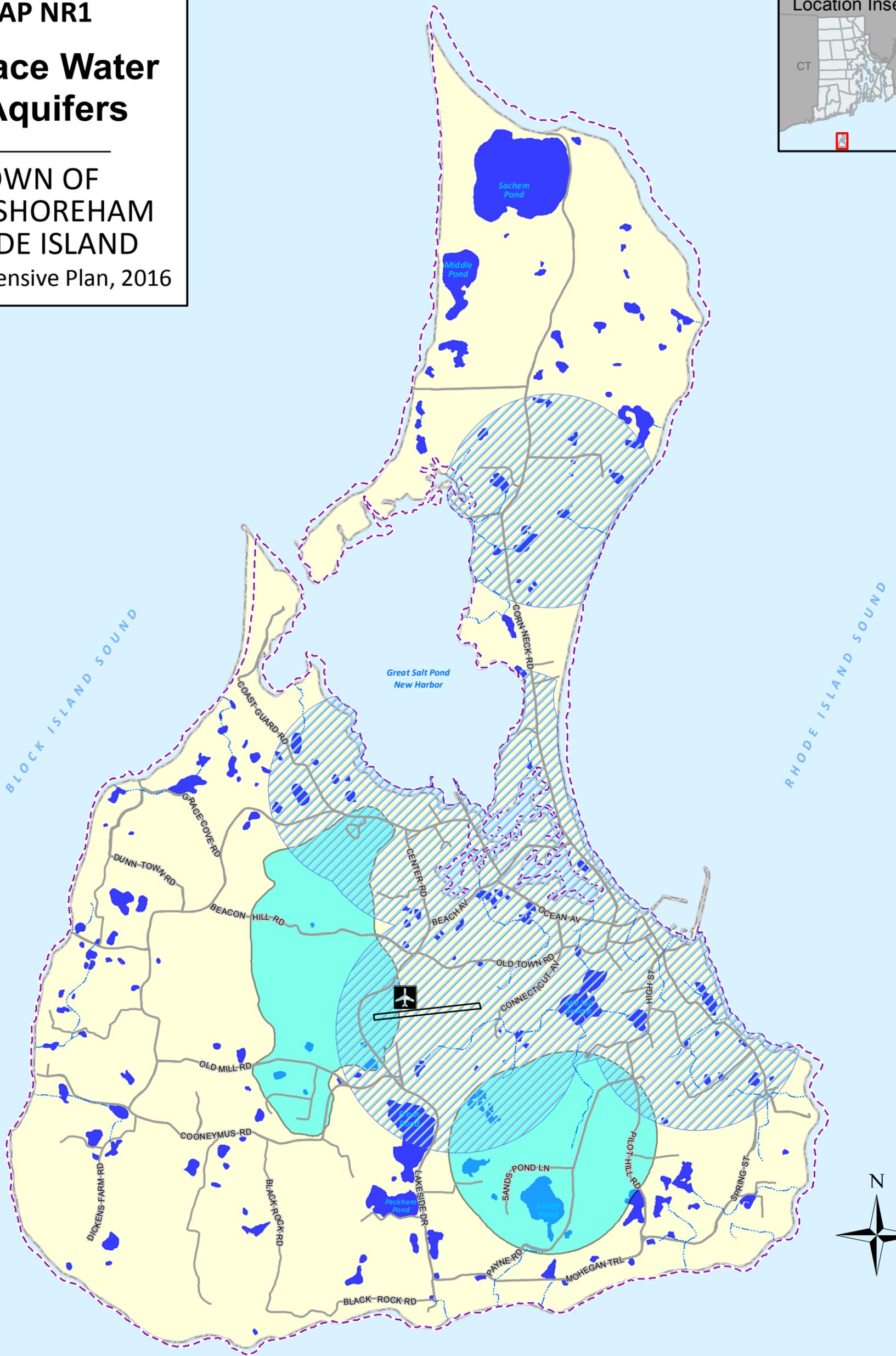
<u>Policy</u>	<u>Action</u>	<u>Responsible Party</u>	<u>Timeframe</u>
NR3.A. Control the proliferation and adverse impacts of individual beach access structures	NR3.A.1. Enact a twelve-month moratorium on individual beach access stair structures	Town Council	Short-term
	NR3.A.2. Craft and enact regulations to ensure private beach access structures are located and designed in a manner that minimizes any adverse impacts	Building, Land Use, & Planning; Planning Board; Town Council	Short-term
NR3.B. Preserve the natural flood protection function and high quality habitat of the dunes system	NR3.B.1. Install beach access signage to encourage pedestrians to remain off dunes	Recreation, Town Manager	Short-term
	NR3.B.2. Implement an effective public education campaign which explains the importance of people remaining off dunes	Recreation; Town Manager; Town Council	Short-term; Ongoing
	NR3.B.3. Install public walkover structures at the Town Beach to discourage traversing the fragile dunes (NHCI.B.2.)	Facilities Director; Building Official; Town Manager	Short-term

**Timeframes:** Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

# MAP NR1

## Surface Water & Aquifers

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



### Legend

- Non-Community Wellhead Protection Area
- Community Wellhead Protection Area
- Sole Source Aquifer - Block Island
- Ponds
- Streams



**RIGIS**

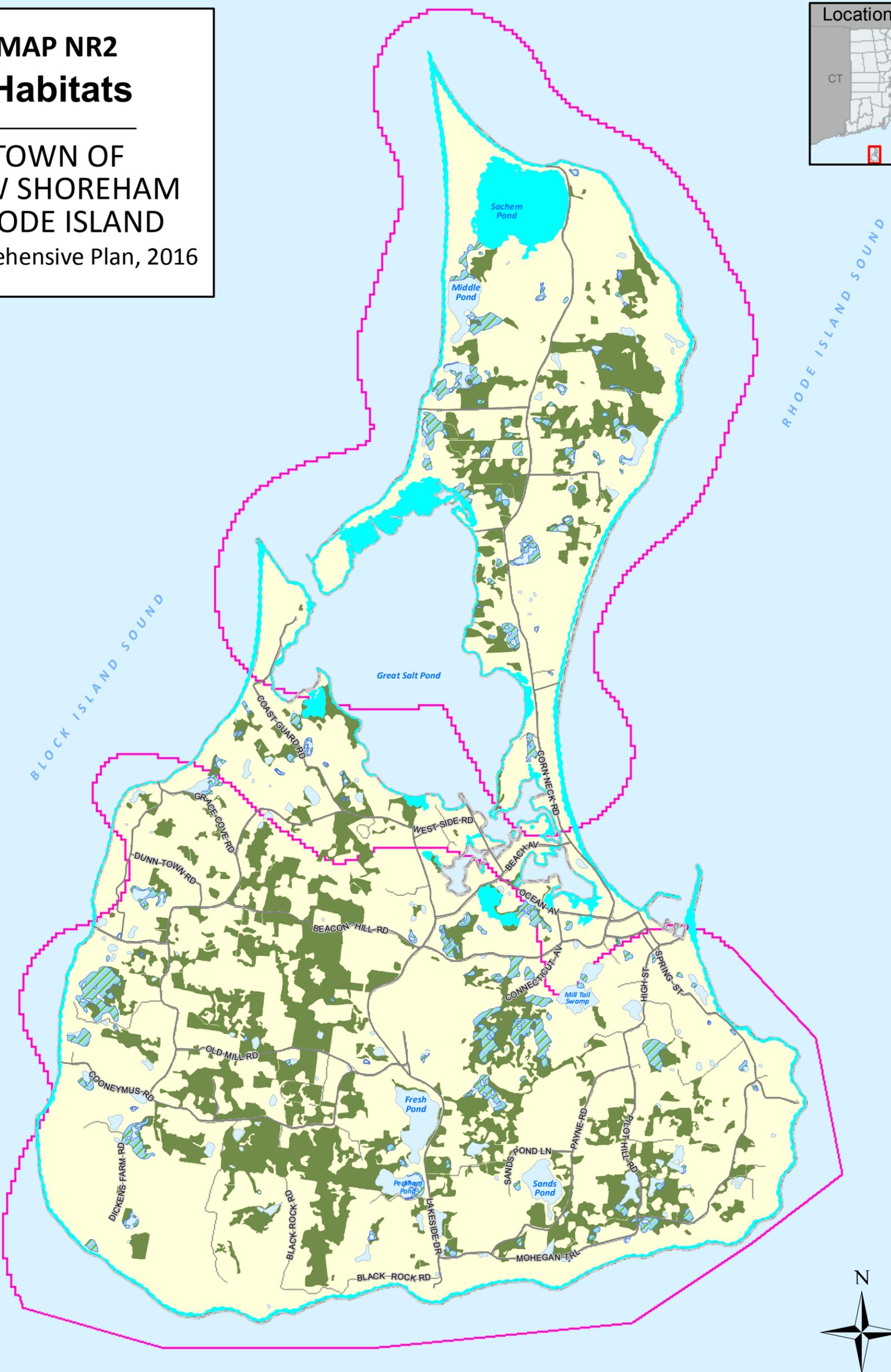
1/20/2016; AR

0 0.25 0.5 1 Miles

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# MAP NR2 Habitats

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



## Legend

-  Coastal Wetlands
-  Freshwater Wetlands
-  Forested Areas - Plantation and Ruderal Forest  
*Source: Ecological Communities Classification*
-  Natural Heritage Areas  
*Critical, Unknown, or Fragile Wildlife Habitat*



**RIGIS**

6/1/2016; AR



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# MAP NR3 Conserved Land

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



## Legend

### Conserved Lands by Ownership

- |  |                         |   |            |
|--|-------------------------|---|------------|
|  | Block Island Land Trust |  | Non-Profit |
|  | Municipal               |  | Other      |
|  | State                   |   |            |
|  | Federal                 |   |            |



**RIGIS**

1/5/2015; AR



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## 4. RECREATION & CONSERVATION AREAS

New Shoreham 2016 Comprehensive Plan

### VISION

**Block Island will offer a variety of recreational activities that encourage healthy lifestyles and provide attractive and accessible places for the recreational pursuits of its residents and many visitors. The island's unparalleled network of conservation areas will continue to promote a strong sense of community and inspire responsible stewardship.**

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# RECREATION & CONSERVATION AREAS

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## SUPPORTING DOCUMENTS

OCEAN STATE OUTDOORS, STATE GUIDE PLAN ELEMENT 152. RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF PLANNING AND RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT. ADOPTED 2003, AMENDED IN 2009.

THE TOWN OF NEW SHOREHAM HARBOR MANAGEMENT PLAN, REVISED JANUARY 18, 2012.

THE TOWN OF NEW SHOREHAM SHORELINE ACCESS WORKING GROUP REPORT. DECEMBER, 2015.

## INTRODUCTION

With an extensive network of conserved lands and trails, 17 miles of beaches and two harbors, Block Island serves the recreational needs not only of its residents but also the tens of thousands of vacationers who visit the island annually to access them.

The following chapter provides an inventory of Block Island's recreational assets along with an assessment of current and future recreational needs. These recreational resources are critically important to the local economy and the quality of life of residents. Providing recreational opportunities is an important means of promoting public health and wellness for a community. On Block Island in particular, the availability of year-round recreational offerings is essential for residents to maintain a healthy and balanced lifestyle.

The New Shoreham Recreation Department has the primary responsibility for providing recreational offerings on the island. Since the Department was instituted in 1996, the Town has seen a demand for additional and varied recreational opportunities on the part of both residents and visitors.

For all these reasons and more, planning for the development and maintenance of recreational facilities and the acquisition and stewardship of conserved lands is of prime importance to the island. *Coming to a consensus as a community as to what additional recreational facilities or offerings can or should be provided is a great challenge that may require additional planning and analysis.*

## Inventory of Recreation Facilities and Lands

Shown on Map RC1 *Recreational Assets* and described below are existing recreational facilities on Block Island. The first two municipal facilities, Heinz Field and Ball O'Brien Park, are administered by the New Shoreham Recreation Department.

### *Heinz Field*

Located within a beautifully landscaped area, Heinz Field is a multipurpose facility that includes a soccer field, baseball diamond, softball diamond, walking path, and parking. In the summer, it is heavily used by various town leagues. The ballfields are also utilized by the School Department, residents, and tourists.

### *Ball O'Brien Park*

Ball O'Brien Park contains a playground, a skate park, a basketball court, two tennis courts, a walking path, a picnic shelter and public restrooms. It is used heavily used by residents year-round and for leagues in the summer. The property is located adjacent to the Great Salt Pond and there is a path which provides shorelines access. The quarter mile, four foot wide walking path encircling the recreational facilities at the park was added in 2016. It was designed to facilitate stroller and wheelchair access. Exercise stations are a planned future addition.

### *Block Island School*

Block Island School is the primary indoor facility utilized by the Recreation Department. The gymnasium is used for some after-school and evening activities including youth programs and a town basketball league. It is also regularly used during the summer to host a variety of programming including a children's camp and basketball and volleyball leagues.

### *Recreation Center*

The Recreation Center, a municipal program for middle and high school students, is located in the basement of the Harbor Baptist Church. The facility is open for this program weekend evenings between late fall and early spring. It serves principally as an activity and social center. The Recreation Center also serves an important role of a foreign student center for seasonal workers during the summer.

### *Fred Benson Town Beach*

The Town Beach facility consists of a seasonally operated pavilion, parking accommodations for vehicles and bicycles and 400 feet of life guarded beach. The building includes restrooms and changing rooms, a concession stand and pay showers. An upgrade to the building is expected in 2016 to increase the number of showers and restroom capacity, and to allow access to these facilities when the building is closed (at the end of the day during the summer season, and during the shoulder season). The parking area was also recently expanded in response to beach parking alongside Corn Neck Road, which often leads to congestion and unsafe conditions. Further parking lot improvements are currently planned for including additional capacity. The Recreation Department has managed the Town Beach facility since 2010.

### *Other Parks*

There are a number of other parks and properties which are publicly-owned or available for public use, as listed below and identified on MAP RCI *Recreational Assets*. Some of these are planned for, or could be subject to, further physical improvements or enhancement.

- MARY D. PARK (WATER STREET)  
A STAIRCASE TO PROVIDE ACCESS FROM WATER STREET TO THE HARBOR AND BREAKWATER IS PLANNED.
- ESTA'S PARK (WATER STREET)

RECENT IMPROVEMENTS INCLUDING LANDSCAPING, BENCHES, AND PATHS COMPLETED AND LED BY THE OLD HARBOR TASK FORCE. IT IS NOW AN INVITING SPACE DOWNTOWN, CONVENIENTLY LOCATED FOR THOSE ARRIVING AND DEPARTING BY FERRY.

- NEGUS PARK (OCEAN AVENUE)  
PROPERTY IS UTILIZED WEEKLY FOR FARMER'S MARKET
- SOLVIKEN PROPERTY (CORN NECK ROAD)  
CONSERVED LAND CONVENIENTLY LOCATED BETWEEN THE TOWN BEACH AND DOWNTOWN. THE PROPERTY IS OWNED BY THE BLOCK ISLAND CONSERVANCY AND THE BLOCK ISLAND LAND TRUST AND IS PUBLICLY ACCESSIBLE. AMENITIES INCLUDE A FEW PICNIC BENCHES. FURTHER IMPROVEMENTS ARE CURRENTLY BEING DEVELOPED.
- TRIANGLE AT ISAAC'S CORNER
- NICHOLAS BALL PARK

### *Conservation Lands*

As of 2015, 2,210 of the island's 6,076 acres (which excludes coastal ponds – the Great Salt Pond, Cormorant Cove, Trims Pond and Harbor Pond) are protected as open space through public or non-profit ownership. Another 597 acres consist of wetlands or waterbodies and cannot be developed. On that basis, 46.2% of the island's land area is conserved, 36.4% through deeded protection and 9.8% through regulation.

The island's robust program of land conservation began in 1972 with the establishment of the Block Island Conservancy. Leaders in the conservation movement originally established a goal of protecting 50% of the island, and previous and ongoing efforts have been extremely successful at nearing the achievement of that goal. The Town should continue to support the identification and conservation of remaining significant open space properties and encourage proper stewardship and management of the existing network of conserved lands. These ongoing efforts are essential for Block Island's economy and quality of life for present and future generations.

### *Trail System*

The island's 28 mile trail system is maintained principally through the combined efforts of the Block Island Conservancy and The Nature Conservancy. The trail system offers users passive recreational opportunities to enjoy the scenic natural beauty of the island including ocean views, coastal features, forests and meadows and provide important pedestrian connections and access to many locations throughout the island. The best trails for individuals with mobility issues are Hodge and Dickens Farm. The island's extensive trail system is shown on Map RCI *Recreational Assets* and is detailed in Table R1: *Block Island Trails* below. Further expansion of the trail system by The Nature Conservancy is not planned at this time, with maintenance capabilities being a limiting factor.

Table RC1: Block Island Trails		
Trail	Length	Level
CLAY HEAD TRAIL AND THE MAZE	12 miles	Moderate
HODGE FAMILY WILDLIFE PRESERVE	1 mile	Easy
MEADOW HILL GREENWAY	.5 miles	Moderate
THE GREENWAY - GREAT SALT POND TO BEACON HILL ROAD	1 mile	Moderate
THE GREENWAY - SOUTH BEACON HILL AND NATHAN MOTT PARK TRAILS	1.3 miles	Hard
THE GREENWAY - TURNIP FARM AND ELAINE LOFFREDO PRESERVE TRAILS	1.7 miles	Moderate
THE GREENWAY - OLD MILL ROAD TO RODMAN'S HOLLOW AND BLACK ROCK TRAILS	2.6 miles	Moderate
FRESH POND TRAIL	.8 miles	Hard
FRESH SWAMP AND PAYNE FARM TRAIL	.9 miles	Moderate
WIN DODGE AND DICKENS FARM TRAILS	2.4 miles	Win Dodge: Hard; Dickens Farm: Easy

*Source: On This Island, Keith H. Lang and Scott B. Comings, Published by The Nature Conservancy, 2006.*

## Water-Based Recreational Opportunities

### Shoreline Access

Block Island's 17 miles of beaches provide endless water-based recreational opportunities and attract visitors from around the globe. In addition to the Town Beach, swimming is popular and accessible, at-your-own risk, at various locations around the island.

It is estimated that the town has over 27 public access to the shore locations including seven CRMC designated right-of-ways to the shore. The Town Council established an informal working group, the Shoreline Access Working Group (SAWG), to inventory public right-of-ways and shoreline access points around the island. The group was tasked with assessing the condition and accessibility of each right-of-way and shoreline access point and to provide recommendations. Recommendations from their final report should be considered and incorporated into future projects including the production of a waterfront access guide for the public. The project should also be built upon in the future to include an inventory of public access points to the island's fresh waterbodies. For a recent description of identified public right-of-ways to the shore see the New Shoreham Harbor Management Plan, adopted in 2012 and the Shoreline Access Working Group Report, adopted in 2015 (Appendix A).

### Recreational Boating

The majority of recreational boating activity takes place at New Harbor (Great Salt Pond), with services and boat slips provided by commercial marinas. The Town has 90 rental moorings in the Great Salt Pond. In addition to the town-owned moorings, and commercial slips there are 289 private, permit moorings. There is also a large anchorage area in the eastern portion of the pond. Please refer the Great Salt Pond Chapter for additional discussion.

Old Harbor provides a small anchorage area to the west of the ferry docking area, a town-operated marina with two docks providing 80 slips, and one private marina. Some of the slips at the town-owned Old Harbor Dock are leased to commercial fishing and charter boat operators, but most are available for public use by transient boaters.

Block Island has a number of private companies offering water-related recreational services. These include sailing and fishing charters, as well as parasailing, kayaking and canoeing tours and rentals, and surf and paddle board lessons and rentals.

For additional discussion on the island's harbors refer to the Town's Harbor Management Plan.

## Recreational Programs Offered by the Town

The Recreation Department organizes, manages, and supports a number of programs throughout the year. There are numerous programs for all ages in the off-season, including many activities for children and teens, a basketball league, and trips to the mainland for cultural events. Little League and tennis are offered in the spring. Soccer, lacrosse, baseball, basketball and volleyball are offered in the summer along with nature and arts camps. The island also hosts popular athletic events including a 10K race in the spring, a triathlon in the summer, and a 15K run in the fall.

### RECREATIONAL NEEDS SURVEY

In 2015, the Recreation Department undertook a survey of residents and visitors to gauge satisfaction with existing facilities and to determine the need for additional outdoor and indoor recreational facilities. Given that the distribution of the survey was not controlled, the results cannot be considered statistically significant and should not be solely relied upon. However, the information can assist decision-makers in identifying additional recreational facilities and programs that should be explored.

Of the 369 responses, 43% self-identified as year-round residents and the rest were evenly split between seasonal residents or visitors. There were generally high satisfaction rates with the various recreational facilities, with a couple exceptions. Development of additional outdoor recreational facilities was supported by just 36% of the respondents who identified themselves as year-round residents, but by 50% of all respondents who answered the question. Development of an indoor recreation space was supported by 80% of year-round residents, and by 67% of all respondents. For the indoor facility, the overwhelming demand was for a fitness and wellness center and a swimming pool, or more generally, a multi-use facility that serves all ages.

The Recreation Department should continue to monitor demand for facilities and programs in order to effectively provide for the recreational needs of the community.

## RECREATIONAL NEEDS IDENTIFIED

In providing for recreation, the town's first priority must be to ensure safe and clean facilities through proper management and maintenance. The Town must also encourage stewardship of the lands already set aside for conservation. In addition, the Town should plan for the expansion of its recreational inventory in response to the needs of the community. However, consideration must be made for the costs to the community associated with the development and ongoing maintenance of any additional parks and ballfields. A Recreation Master Plan including financial analyses can assist the island in establishing a realistic long-range plan for the development and maintenance of recreational assets and can be used to guide implementation efforts. The following section describes the limitations of existing recreation facilities and future needs for additional recreational offerings.

### *Fred Benson Town Beach*

As a top attraction and recreational asset of the island, support and demand will always exist for additional improvements and amenities at the Town Beach. However, given the vulnerability of the building's location to high winds and storm surges, and the damages it incurred during Hurricane Sandy in 2012, the Town must balance the expense of improvements with the risk of future damage from severe storms.

### *Athletic Fields*

Expansion of athletic fields has been identified as necessary to respond to the demands of multiple user groups, particularly in the summer. Heinz Field is not large enough to accommodate the programming needs of both the Recreation Department and the School Department.

### *Gymnasium*

Availability of programs offered to the general public at the Block Island School is limited by facility access and the school calendar. Opportunities to provide increased access for adult recreation programs at the Block Island School, particularly the gymnasium, when it is not being utilized by school programming should be explored.

### *Recreation Center*

The Recreation Center in the Harbor Baptist Church is not accessible to individuals with physical disabilities. The facility is limited in its use by the Harbor Baptist Church to its operating hours and length of season. For these two reasons, an alternative, more permanent location within a town-owned or controlled property should be explored.

### *Indoor Recreational Facility & Swimming Pool*

The community acknowledges the recreation and health benefits an indoor recreation and community center could provide year-round residents. This type of facility could also enhance the island's tourism industry's shoulder season. Along with exercise class space and an exercise equipment room, the facility could also serve as a youth center, senior center, and house the Recreation Department offices. It could also be a location for educational pursuits and a space for community events, enhancing the quality of life of residents and fostering community cohesion. The Town will further explore potential locations along with the financial

costs and capabilities of the town to develop, operate and maintain such a facility. The feasibility of an indoor swimming pool at this recreational facility or another location should also be explored.

*Physical space for additional recreational programs discussed above could be provided by rehabilitating one or more existing and underutilized town-owned buildings.*

*The Large Capital Asset Subcommittee (LCAS) is working on surveying existing town properties where recreational activities could be offered.*

### ***Recreational Programs for Seniors***

In 2015, the Town added a full-time recreation assistant to the Recreation Department to specifically assist with recreational programming. This will allow additional programs to be offered in response to need, both seasonally and year-round. In particular, there is an identified lack of recreational programs for older adults. Given the growing aging population, it is anticipated that the demand for recreational programs for seniors will increase in the future.

### ***Geographically Dispersed Provision of Neighborhood Scaled Recreational Amenities***

Redevelopment in the village and harbor areas, the construction of new housing, particularly affordable, and any major subdivision of land, provide opportunities for the provision of open space and recreation amenities at no cost to the town throughout the community. These neighborhood scaled recreational assets could include pocket parks, playgrounds, community gardens, pedestrian paths, and public access to the shore. The town currently has a conservation subdivision option, known as flexible design, which encourages the set aside of land for open space in subdivisions of three or more lots. The town should consider making conservation-style subdivisions mandatory for all major subdivisions on the island and encourage varied and site appropriate recreational amenities be provided as part of any major development or redevelopment projects.

### ***Expansion of the Island's Conserved Lands Inventory***

Efforts to protect all critically important lands should continue. According to a 2011 poll conducted by The Nature Conservancy on Block Island, public priorities for the acquisition of conservation lands were identified in the following order.

Properties that:

- PROTECT FRESHWATER RESOURCES / QUALITY OF DRINKING WATER
- PROTECT IMPORTANT HABITAT, PARTICULARLY OF ENDANGERED SPECIES
- PROTECT SCENIC VIEWSHEDS AND LANDSCAPES
- PROVIDE OPPORTUNITIES FOR PASSIVE RECREATION
- ARE MOST VULNERABLE TO DEVELOPMENT
- PROVIDE PUBLIC PARK SPACE AND CAN BE UTILIZED FOR BALLFIELDS
- CAN ACCOMMODATE COMMUNITY GARDENS

Other important priorities of the town when identifying properties to be protected include those lands which:

- ARE MOST IMPORTANT TO HISTORIC OR ARCHEOLOGICAL RESOURCES
- ABUT EXISTING CONSERVED LANDS / PROMOTE LARGE GREENWAYS OF CONNECTED CONSERVATION AREAS
- PROVIDE THE OPPORTUNITY TO EXTEND EXISTING TRAIL NETWORK
- PROVIDE PUBLIC ACCESS TO THE SHORE
- ARE SUBJECT TO INUNDATION DUE TO SEA LEVEL RISE
- CAN MITIGATE THE IMPACTS OF SEA LEVEL RISE

## Goals, Policies & Implementation Actions

### **GOAL RCI: PROVIDE AN EXPANSIVE AND WELL-MAINTAINED NETWORK OF OUTDOOR RECREATIONAL AREAS INCLUDING CONSERVATION LANDS, BEACHES, TRAILS, PARKS, AND BALLFIELDS**

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
RCI.A. Increase the inventory of conserved lands in order to protect natural resources including habitat and water quality and to preserve the island's scenic landscapes	RCI.A.1. Partner with non-profits to identify and prioritize open space lands that should be conserved	Land Trust; Conservation Commission; GIS Department; Town Manager; Town Council	Ongoing
	RCI.A.2. Collaborate with non-profits when acquiring, developing, and maintaining recreation and conservation areas	Land Trust; Conservation Commission; Town Manager; Town Council	Ongoing
	RCI.A.3. Prioritize the conservation of lands abutting conserved lands to create large protected greenways, habitat areas and opportunities for trail extensions	Land Trust; Town Council	Ongoing
RCI.B. Encourage the use of conservation-style (flexible) subdivisions over traditional subdivisions of land	RCI.B.4. Determine if conservation-style subdivisions should be mandatory for all major subdivisions	Planning Board	Short-term
RCI.C. Promote public access to the island's recreation and conservation areas	RCI.C.1. Maintain pedestrian trails including the greenway and right-of-ways to the shore so that they remain passable and have appropriate signage	Conservation Commission; Land Trust; Town Manager	Ongoing
	RCI.C.2. Inventory, document and map all public access points to the shoreline and freshwater bodies; publish and distribute a public waterfront access guide	SAWG; GIS Department; Harbors Department; Recreation Department	Short-term
	RCI.C.3. Create and disseminate a blueways map and guide to promote paddling (GSP2.B.1.)	GIS; Harbors Department; Tourism Council; Recreation Department	Short-term

RCI.D. Enhance the enjoyment and recreational potential of town-owned parks and other recreational assets through suitable upgrades, maintenance and management measures	RCI.D.1. Develop a maintenance plan for town recreational facilities that establishes roles and responsibilities of the various town departments and groups	Recreation Department; School Department; Land Trust; Town Manager	Short-term
	RCI.D.2. Add amenities and make upgrades to existing town-owned parks when possible	Town Manager; Recreation Department; Town Council	Ongoing
	RCI.D.3. Construct a staircase to provide access from Water Street to the Harbor and breakwater	Town Manager; Facilities Director; Building Official; Old Harbor Task Force	Short-term

**GOAL RC2: MEET THE RECREATIONAL FACILITY AND PROGRAM NEEDS OF RESIDENTS, BOTH YEAR-ROUND AND SEASONAL, OF ALL AGES AND ABILITIES, AS WELL AS VISITORS**

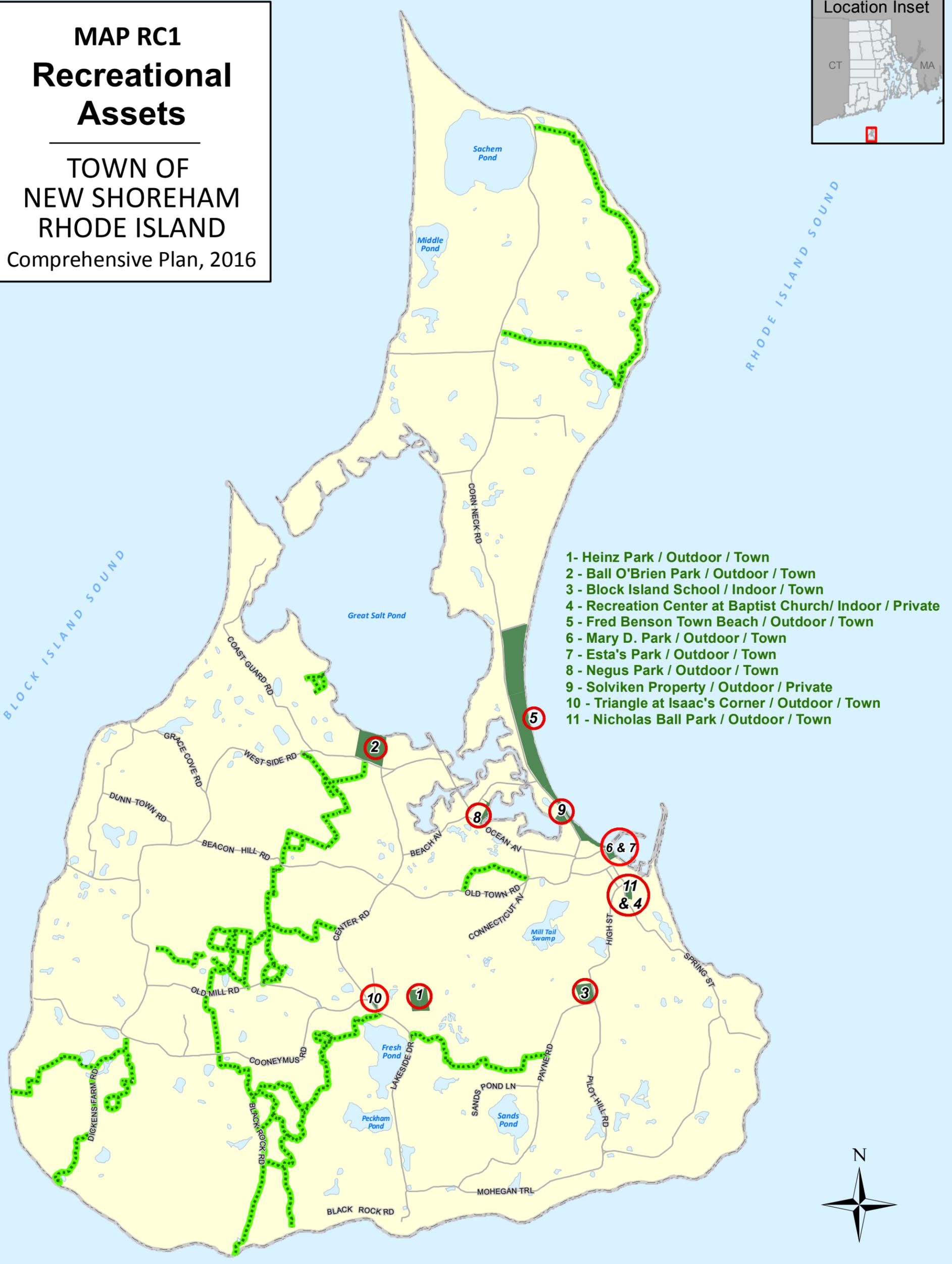
POLICY	ACTION	RESPONSIBLE PARTY	TIMEFRAME
RC2.A. Plan for increased demand and investments in recreational facilities and programs	RC2.A.1. Develop and implement a fiscally feasible Recreation Master Plan that serves the long-term needs of residents	Building, Zoning, Land Use & Planning; LCAS; Recreation Department; Town Manager; Town Council	Medium-term
	RC2.A.2. Explore location options and financial ability of town to develop and operate an indoor recreational facility	LCAS; Town Manager; Town Council	Short-term
	RC2.A.3. Identify potential locations for the future development of playing fields to relieve issues related to over-use and scheduling conflicts	LCAS; Town Manager	Medium-term
	RC2.A.4. Add additional year-round recreational program opportunities targeted to older adults and seniors	Recreation Department	Short-term
RC2.B. Consider vulnerability to natural hazards when locating or upgrading recreational facilities			
RC2.C. Increase accessibility to town recreational facilities	RC2.C.1. Incorporate safe and convenient pedestrian and bicycle access to town recreational facilities	Building, Zoning, Land Use & Planning; Planning Board; Town Manager	Ongoing
	RC2.C.2. Retrofit existing facilities when possible to provide increased access to recreational facilities by disabled and seniors	Building, Zoning, Land Use & Planning; Planning Board; Town Manager	Ongoing
	RC2.C.3. Explore opportunities for increased access to the Block Island School gymnasium for adult recreation programs	Recreation Department; School Department	Short-term
RC2.D. Foster variety in the types and geographic locations of recreational amenities	RC2.D.1. Require that significant land development projects, including major subdivisions, incorporate open space and recreational amenities	Building, Zoning, Land Use & Planning; Planning Board	Short-term

**Timeframes:** Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

**MAP RC1**  
**Recreational Assets**  


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**TOWN OF NEW SHOREHAM**  
**RHODE ISLAND**  
 Comprehensive Plan, 2016



- 1- Heinz Park / Outdoor / Town
- 2 - Ball O'Brien Park / Outdoor / Town
- 3 - Block Island School / Indoor / Town
- 4 - Recreation Center at Baptist Church/ Indoor / Private
- 5 - Fred Benson Town Beach / Outdoor / Town
- 6 - Mary D. Park / Outdoor / Town
- 7 - Esta's Park / Outdoor / Town
- 8 - Negus Park / Outdoor / Town
- 9 - Solviken Property / Outdoor / Private
- 10 - Triangle at Isaac's Corner / Outdoor / Town
- 11 - Nicholas Ball Park / Outdoor / Town



**Legend**

- Recreation Properties
- Trails
- Roads
- Water

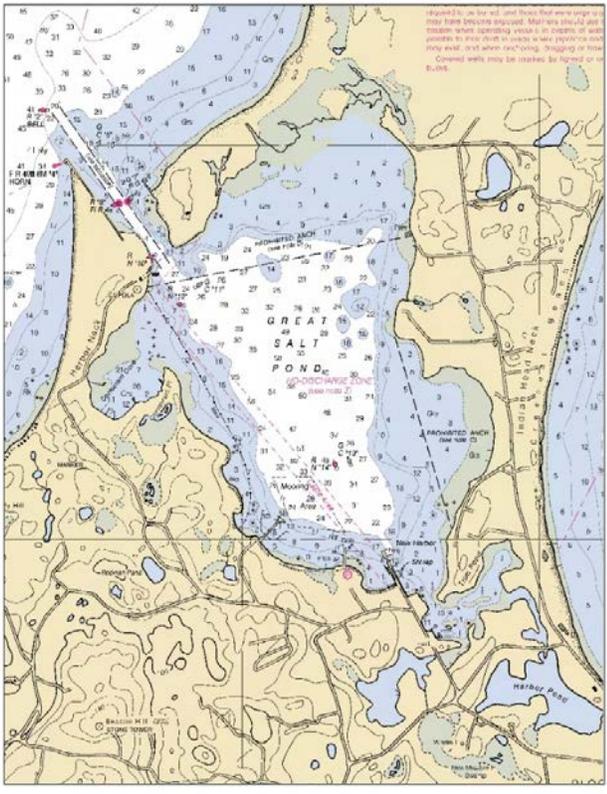


**RIGIS**

6/9/2016; AR



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## VISION

The Great Salt Pond will continue to serve a central role in Block Island life for generations to come as one of Block Island's most significant natural features, recreational resources and economic assets. The community will place vital importance on the protection of its water quality, fragile ecosystem and scenic character. This beloved recreational resource will continue to be known as a first-class yacht harbor and welcoming to a variety of water-based recreational activities. Through sound management, the Great Salt Pond will remain in strong ecological health and will contribute immeasurably to the local economy and the quality of life of residents.

# 5. THE GREAT SALT POND

New Shoreham 2016 Comprehensive Plan

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# THE GREAT SALT POND

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## SUPPORTING DOCUMENTS

BLOCK ISLAND HARBORS SEA LEVEL RISE ADAPTATION STUDY. TOWN OF NEW SHOREHAM, RI. AUGUST 1, 2013.

SEASONAL DYNAMICS OF JUVENILE FISH IN GREAT SALT POND, BLOCK ISLAND, 2014.

THE NATURE CONSERVANCY, BLOCK ISLAND FIELD OFFICE. DECEMBER 14, 2014.

THE GREAT SALT POND MANAGEMENT PLAN. TOWN OF NEW SHOREHAM, RI. 1998.

TOWN OF NEW SHOREHAM HARBOR MANAGEMENT PLAN. REVISED JANUARY 18, 2012.

## OVERVIEW

One of Block Island's greatest assets is its beautiful sheltered harbor, known as the Great Salt Pond. Historically an enclosed pond, this now 673 acre tidal harbor, known as New Harbor, opens to Block Island Sound providing vessels with shelter from heavy seas. Since Block Island had no natural harbors, breakwaters were constructed to form Old Harbor in 1870. New Harbor, was created in 1895, when a channel was dug to connect the Great Salt Pond to Block Island Sound through the northwestern side of the island.

*The federal channel accessing the Great Salt Pond was authorized through the U.S. Rivers and Harbors Act of June 3, 1896 (modified in 1902 and 1945) which allows for the construction, repair, and preservation of certain public works on rivers and harbors and specifically cites the Great Salt Pond on Block Island.*

Today, the Great Salt Pond is a popular multiple use recreational and economic asset. Providing for those uses while also protecting ecological communities, water quality, and sensitive archeological sites is a great challenge. This magically scenic natural feature demands our protection. A balance of appropriate uses must be achieved in order to provide an optimal habitat, superior water quality and a recreation zone for water based activities in keeping with this special place.

### *Cultural Asset*

The Great Salt Pond has provided a home, habitat, and recreation for thousands of years. The shores of the pond have a long history of human use, as it once was a primary area of residence by Native Americans both before and after contact with Europeans. Due to its significance, the area was added to the National Register of Historic Places in 1990 and is referred to as the Great Salt Pond Archeological District (See *Map HCI Historic & Cultural Resources*).

### *Ecological Asset*

Covering about one square mile in area, the Great Salt Pond is surrounded by a scenic watershed and is home to a wide variety of plants and animals. Its waters, shoreline and coastal wetlands provide important habitat for birds, seals, lobsters, crabs, shellfish and fish.

### *Recreational Asset*

The Great Salt Pond is one of the most popular yacht harbors in the northeast with approximately 1,000 visiting boats moored in New Harbor on a typical summer weekend and as many as 2,000 on special occasions such as holidays or Race Week. It is navigable by vessels with up to 12 feet of draft and offers a large anchoring area and rental moorings. The pond is also popular for paddling and fishing.

### *Economic Asset*

Together with the nearby beaches, the Great Salt Pond/New Harbor is the island's prime attraction for tourists. On summer weekends, visiting boaters are estimated to represent a waterborne community of 3,000 to 6,000 people making New Harbor a major economic asset not only for the Town but also for the State. The local businesses established to support this waterborne community provide jobs for residents and contribute significantly to the local tax base. Permits and fees associated with the recreational uses on the pond also represent a significant revenue source for the town.

## Appropriate Uses

*The intention of the Town has been and continues to be that New Harbor be dedicated to recreational boating use, commercial fishing, shellfishing, and aquaculture but not to other commercial activities such as freight, ferries, major transportation and other uses that might conflict with those intended uses or the scenic and natural qualities of the Great Salt Pond. A clear distinction must remain between uses appropriate for Old Harbor and New Harbor.*

Concern over potential overdevelopment or inappropriate uses that could forever negatively impact this important natural and economic asset drives a significant amount of civic attention and volunteerism and, as such, appropriate public policies and protective measures should follow. Public policies affecting the Great Salt Pond and its watershed should be based on a long-term view, a clear understanding of the pond's ecosystem and the utilization of tools to forecast and evaluate environmental impacts. It is important that the Great Salt Pond be protected and managed in a way to prevent future harm while allowing for the current uses to continue.

## Tour the Great Salt Pond - A Shared-Use Harbor

The Great Salt Pond serves as a shared-use harbor. Roughly one-half, the northern sector, is reserved for recreational use. This is a "no anchoring" area **(1)**, kept open for sailing, swimming, fishing, kayaking,

canoeing, kite boarding, rowing and wakeboarding. The Great Salt Pond is readymade for paddling, with flat water surrounded by scenic salt marsh and estuaries perfect for bird and wildlife sightings.

The central and southern deep-water areas of the Great Salt Pond are set aside as anchorage **(2)** and mooring areas **(3)**. The mooring field contains both private and rental moorings. The town owns and manages 90 rental moorings. The 289 private moorings in the Great Salt Pond are controlled by permits issued by the Town. The mooring area is at or near capacity and there is a long list of island residents and nonresidents on the waitlist for mooring permits. Commercial launch services operate throughout the Great Salt Pond, serving both the anchorage and mooring areas.

Three large private marinas **(4)** provide over 400 slips for private yachts, dockage for the high speed ferry from Montauk, New York, and on occasion, host small cruise ships. Surrounding the three large marinas are shoreside restaurants and inns within walking distance. Two of the marinas have bars and eating establishments on the piers.

The southwest corner of Great Salt Pond is Cormorant Cove **(5)**, a 32 acre cove bordered by private residences, some with piers. Part of Cormorant Cove is deep enough for anchorage, but it is separated from the main body of the harbor by a shoal, and there is only a narrow entry with water deep enough for boats with four to five feet of draft.

Northwest of Cormorant Cove, on the edge of the channel joining Block Island Sound, is a former U.S. Coast Guard station **(6)**. Its building and dock are now owned by the Town and future uses are being explored.

The northern recreational area by Beane Point is bordered to the west and the north by dunes, tidal flats and salt marshes. This is an undeveloped conservation area **(7)** and wildlife preserve. It is owned in part by local entities and in part by the US Fish and Wildlife Service.

Along the eastern shore of the recreational area is a public beach, Andy's Way **(8)** with a small parking area off of Corn Neck Road. Dozens of small craft are pulled up on the beach here during the season.

While there are homes along this shore, most buildings are set back from the water's edge, leaving the shoreline untouched. One exception is the Block Island Club **(9)**, a community nonprofit that focuses on sail training for juniors. The club has a building near the water, a small swimming beach and a pier (the only pier permitted in the recreational area). The club has a fleet of more than 40 sailboats, kayaks, canoes and rowboats.

To the south of the club is a public dinghy beach, known as Mosquito Beach **(10)**, which provides visiting boaters with access to the ocean beaches and town facilities on the eastern side of the island, across Corn Neck Road.



Figure GSP I: Great Salt Pond Tour

In the southeast corner of the Great Salt Pond there are linked salt-water ponds, Trim's Pond **(11)** and Harbor Pond **(12)**. Part of this area is used for commercial aquaculture. This is mostly shallow water, navigable by kayaks or canoes, but with deeper water along an entrance channel where there is a public launch ramp for small craft, the only one in the Great Salt Pond. Also located along the channel is a docking station for pumpout boats to transfer waste from boats in the harbor to the town's sewage treatment system. Commercial facilities in this area include kayak and paddleboard rental stations, a boat launch, repair and winter storage facility, with rental slips for small craft, and a bait and tackle shop with rental cabins and a dock for small fishing boats. One other organization located on the water here is the BI Maritime Institute **(13)**, a nonprofit which has slips for a dozen boats.

See below for CRMC Water Type Classification Map. A majority of waterfront on the Great Salt Pond is designated Type I, Conservation Areas, which does not permit the construction of new docks.

## Public Facilities for a Waterborne Community

In the summer, boaters in New Harbor represent a large seasonal community on the island resulting in the need for a significant amount of public services and facilities including but not limited to emergency response, utilities, and refuse collection. Currently, there are few on-shore public facilities to meet the basic needs for these visiting boaters. For example, there is no public dinghy dock for the moored and anchored boats, and no publicly owned shower or toilet facility readily accessible to boaters in the harbor. A subcommittee of the Harbors Commission was established in 2015 to identify any necessary public facilities for the boating population on the Great Salt Pond. The greatest challenge will be identifying appropriate locations for new facilities conveniently sited for intended users.

### Considerations:

- THE HARBORMASTER’S OFFICE IS LOCATED IN A “SHACK” ON AN OLD BARGE AT THE BOAT BASIN AND MUST BE RELOCATED SOON.
- CURRENTLY, THE TOWN HAS AGREEMENT WITH PRIVATE MARINA BUSINESS TO ALLOW USE OF SHOWERS FOR VISITING BOATERS IN EXCHANGE FOR NO COST REFUSE REMOVAL.
- AN UPGRADED TOWN BEACH PAVILION, ACCESSED FROM NEW HARBOR BY CROSSING CORN NECK ROAD, WILL PROVIDE EXTENDED TIME FOR VISITING BOATERS TO UTILIZE TOKEN OPERATED PUBLIC RESTROOM AND SHOWER FACILITIES. THE PROJECT IS EXPECTED TO BE COMPLETED AND AVAILABLE FOR USE IN 2016.
- LONG-TERM IMPACTS OF SEA-LEVEL RISE MAY REQUIRE THE RELOCATION OF THE TOWN’S BOAT RAMP AT NEW HARBOR.

## Roles and Responsibilities in the Management of the Great Salt Pond (New Harbor)

The Harbormaster oversees all marine activity in the Great Salt Pond (as well as Old Harbor described elsewhere in this plan). The Harbormaster is responsible for safe navigation within the harbor, for rental of moorings and the location of boats in the anchorage, and for the operation of sewage pumpout boats.

While the Harbormaster is in day-to-day control of the Great Salt Pond, jurisdiction is shared with other agencies and groups. By the ruling of the Rhode Island Supreme Court, the Rhode Island Coastal Resources Management Council (CRMC) has primary jurisdiction of the shoreline of the pond and the 200-foot contiguous landward area, including tidal water. CRMC’s authority extends to docks, piers, launching ramps, buildings, aquaculture, the size and configuration of marinas and any other proposed alterations in tidal waters, the shoreline or the 200-foot contiguous area.

Numerous federal as well as state laws and regulations apply, notably in the areas of navigation and environmental protection. The channel into Block Island Sound, cut in the late 19<sup>th</sup> Century, turned the

Great Salt Pond from an isolated pond into navigable waters and a harbor of refuge. Thus it is subject to oversight by the U.S. Army Corps of Engineers.

In fulfilling its mission to maintain navigation, the Army Corps of Engineers occasionally conducts maintenance dredging projects at the channel to the Great Salt Pond. Natural shoaling processes reduce available depths in the entrance channel making navigation to and from the pond hazardous. At times, shallow depths have led to the grounding of some vessels and the need for additional navigational buoy.

State law delegates the power to regulate fishing in the Great Salt Pond to the Town of New Shoreham (RIGL 20-3-7). Block Island's Shellfish Commission and its Shellfish Wardens are responsible for management of the shellfish and finfish populations in the Great Salt Pond, encompassing the regulation of commercial and private shellfish licenses, quantities, methods and timing of shellfishing, the opening and closing of shellfish beds and enforcement.

Also involved in the future of the Great Salt Pond are non-governmental organizations. One island nonprofit, the Committee for the Great Salt Pond (CGSP), was created specifically to help deal with environmental and developmental issues in the Great Salt Pond and its watershed. Other organizations are closely concerned with the Great Salt Pond because of their broader interest in conservation and environmental protection on Block Island. They include The Nature Conservancy, the Ocean View Foundation, the Block Island Residents Association, the Block Island Land Trust, and the Block Island Conservancy. These organizations intersect in many ways, and collaborate informally, but no one institution coordinates their activities or oversees their efforts.

### ***The Committee for the Great Salt Pond***

The mission of the Committee for the Great Salt Pond (CGSP) is to protect and enhance the environmental quality of the Great Salt Pond and its watershed. The Committee for the Great Salt Pond, one of Block Island's most active environmental organizations, was founded in response to a 1986 proposal to build a large ferry terminal inside the pond. About a decade following, a second controversial project proposed the expansion of docks at Champlin's Marina into the Great Salt Pond to add an additional 140 boat slips. The CGSP, leading the opposition, filed an appeal with the Rhode Island Supreme Court to reverse the lower court's decision to allow the expansion without seeking CRMC review. The Town, Land Trust, and Block Island Conservancy are also opposed to the dock expansion.

The CGSP has one of the longest running water quality sampling databases in the country. Recent initiatives of the Committee for the Great Salt Pond include conducting expanded water quality testing and research and management of non-point source pollution impacts on the Great Salt Pond.

## Environmental Significance and Considerations

### *Habitat*

The Great Salt Pond is a tidal harbor supporting a diverse habitat. Of the more than 300 species of birds seen on Block Island, about 50 species nest here, including many waterfowl. More than 30 species of finfish and shellfish are found in the Great Salt Pond, along with clam and oyster beds.

In 2014, The Nature Conservancy and the Rhode Island Department of Environmental Management launched a scientific investigation to determine the pond's importance as nursery habitat for fish. In total, 25 species of fish from 24 families were recorded during the 2014 survey. Forage fish accounted for 94% of fish captured, including: Atlantic silverside, striped killifish, and rainwater killifish. The most abundant species was Atlantic silversides. Winter flounder was the fourth most abundant species. For most fish species in the Great Salt Pond, including winter flounder, abundance peaked in September and declined with temperature decrease in October. The report for the first year of the study recommends that, in future years, researchers also collect water quality data such as temperature, salinity and dissolved oxygen at each station during the time of the fish survey.

The ecological significance of the network of coastal wetlands of the Great Salt Pond must be understood and protected. Many of these wetlands are threatened by sea level rise and accommodations should be planned for wetland migration. See the *Natural Hazards & Climate Change Chapter for SLAMM Maps (Sea Level Affecting Marshes Model) for Block Island*. SLAMM maps are also available at [http://www.crmc.ri.gov/maps/maps\\_slamm.html](http://www.crmc.ri.gov/maps/maps_slamm.html).

### *Water Quality*

It is hard to overstate the importance of water quality protection to the Great Salt Pond. If this harbor were not kept clean and attractive, its value to the island would be diminished or destroyed.

Block Island has taken extensive steps to deal with point sources of pollution. It was the first community in the State to enact a "No Discharge" law of sewage from boats in 1993. The challenge of today and the future will be the management and reduction of non-point sources of pollution and their impacts on the Great Salt Pond and its watershed. Non-point source pollution is an everyday threat and more challenging to manage. If non-point sources of pollution are not controlled, there could be substantive, enduring changes in the biological balance of the harbor's waters or in the configuration of the pond itself.

Water quality testing is done on a regularly scheduled basis and at many locations throughout the pond by the CGSP and the Town. A tremendous amount of data has been collected over the years allowing the ability to track changes in water quality over time. Water quality test results show that bacterial counts, which were high before the "No Discharge" law went into effect, have since been kept within the permissible range. However, there are exceptions and troublesome "hot spots." The "hot spots" repeatedly register high bacteria counts with the likely source of pollution being land-based. **One location, in the Trim's Pond-Harbor Pond area, is designated "impaired waters" by the Rhode Island Department of Environmental Management, so labeled for failure to meet the standards of the federal Clean Water Act.**

Recent water quality testing by the CGSP indicates that the water quality of the Great Salt Pond has been negatively impacted by non-point pollution. The island must be vigilant in preventing eutrophication of the waters of the pond. Such a condition results when compounds of nitrogen and phosphorus, from urban and agricultural land uses in the watershed, concentrate in the water. This accelerates plant growth and

encourages algae blooms. The dissolved oxygen in the water decreases to the point where fish and wildlife can no longer survive.

TESTS IN THE GREAT SALT POND SHOW THAT NITROGEN AND PHOSPHORUS LEVELS ARE NOT AT DANGEROUS LEVELS BUT ARE INCREASING SLOWLY. CONTINUED MONITORING IS NEEDED, ALONG WITH EFFORTS TO IDENTIFY THE SOURCES OF NUTRIENT POLLUTANTS, AND TO REDUCE WATERSHED RUNOFF WHERE POSSIBLE.

Water quality testing should be continued and expanded, to include an evaluation of the harbor's bottom soil. Almost no biochemical testing of this kind has been done, and little is known about possible contaminants.

Land acquisition or conservation within the watershed is one significant way to reduce the risk of nonpoint source pollution to the Great Salt Pond. It is estimated, utilizing the town's Geographic Information System, that currently 25% of the land within the watershed of the Great Salt Pond is conserved (See *Map GSP / The Great Salt Pond Watershed & Conserved Lands*).

*While there may be work to be done to remedy current pollution sources and prevent future ones, it should be recognized that this is a remarkably clean harbor by comparison with others. Data on bacterial counts, water clarity, dissolved oxygen levels and suspended solids indicate that the water quality of the Great Salt Pond is far better than most harbors in New England.*

## Local and Regional Economic Impact

The Great Salt Pond is vitally important to the island economy. It is responsible for the existence of many full and part-time jobs. Some are directly related to the Great Salt Pond as a center of recreational boating, such as the employees of the marinas, while others are indirectly related such as taxi drivers, restaurant employees and retail sales clerks.

Visiting boats add significantly to the island's summer population. The Harbormaster reported that during the 2014 season, about 15,000 boats came to the Great Salt Pond and stayed overnight or longer. The number of people staying overnight on boats is typically equivalent to the number of guests in the island's hotels and inns, if not greater.

While the total economic impact can only be estimated, certain figures can provide an indication as to the substantial amount of dollars generated from the uses within and surrounding the Great Salt Pond. Mooring rental fees added about \$400,000 to the Town's general fund in 2014. Fees for private moorings contributed about \$120,000 while shellfish licenses added \$50,000. However, fees are only a portion of the harbor's

economic impact. The largest single economic driver is the slip rental business done by private marinas with revenues estimated in the millions of dollars annually.

Secondary economic impacts are also significant. The people who come ashore from boats expand the tourist economy in the same way as other visitors do in that they go to beaches and restaurants, patronize retail shops and hire taxis.

## Natural Hazards

The prospect of a natural disaster including hurricanes and Nor-easters impacting the Great Salt Pond and accelerating natural shoreline erosion must be factored into the Town's planning process. A major storm that results in a breach from the sea into the pond could cause catastrophic environmental and economic impacts. The most likely sites for such an event are the locations where the sea and harbor are separated by a narrow neck of land composed of sand, gravel and loose soil, easily moved by wave action. One such area is north of the channel and Beane Point where the land rises just a few yards above mean sea level. Hurricane Sandy did result in a breach of the Great Salt Pond.

Recent NOAA scenarios project 2 meters (6.6 feet) of sea level rise by 2100. In 2013, the Town conducted a sea level rise adaptation study which identified potential strategies the town can implement to prepare for and mitigate potential impacts of sea level rise. Inundation mapping conducted as part of the study shows land, docks, and roadways surrounding the Great Salt Pond as being either inundated by sea level rise or more susceptible to flooding during extreme storm conditions as a result of sea level rise. Specific strategies to mitigate the impacts of sea level rise on the Great Salt Pond and its uses include the raising of roadbeds, flood-proofing of pump stations, and the eventual relocation of the town's boat ramp.

For additional discussion on natural hazards and related maps, see the Chapter 10. Natural Hazards & Climate Change and the *New Shoreham Hazard Mitigation Plan* (Appendix B).

## Goals, Policies & Implementation Actions

### GOAL GSPI: PROTECT AND REHABILITATE THE WATER QUALITY AND ECOLOGICAL FUNCTIONS OF THE GREAT SALT POND

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
GSPI.A. Maintain the highest possible water quality standards	GSPI.A.1. Working with partners, such as the CGSP, continue to monitor water quality through coordinated and expanded water sampling efforts at various locations throughout the pond	Harbors Department; Harbors Commission; Shellfish Commission	Ongoing
	GSPI.A.2. With partners, conduct complete physical and chemical analyses of the pond's bottom soil	Harbors Commission; Shellfish Commission	Short-term
	GSPI.A.3. Identify point sources of pollution and initiate immediate action to cease the activity	Harbors Department	Ongoing
GSPI.B. Mitigate potential impacts of non-point source pollution on the ecological health of the Great Salt Pond	GSPI.B.1. Work with partners to conduct a study to identify potential non-point sources of pollution upstream of the Great Salt Pond	Town Manager; Building, Zoning, Land Use & Planning;	Short-term
	GSPI.B.2. Encourage local land conservation groups such as the Block Island Land Trust, the Nature Conservancy, and the Block Island Conservancy to prioritize land conservation investments which will have a positive impact on water quality of the GSP	Town Manager; Town Council; Conservation Commission	Ongoing
	GSPI.B.3. Educate property owners on best management practices such as minimizing use of herbicides and pesticides	Harbors Department; Building, Zoning, Land Use & Planning; Conservation Commission	Ongoing

GSPI.C. Plan for potential impacts to the Great Salt Pond from natural hazards	GSPI.C.1. Seek grant funding to implement strategies identified in the Block Island Sea Level Rise Adaptation Study	Building, Zoning, Land Use & Planning; Grant Writer	Short-term; Medium-term; Long-term
	GSPI.C.2. Identify lands that will provide marsh migration areas for coastal wetlands of the Great Salt Pond in response to sea level rise	Building, Zoning, Land Use & Planning; Land Trust; Conservation Commission	Medium-term; Ongoing
	GSPI.C.3. With the help of partners, pursue dune restoration projects to mitigate erosion and provide habitat along the Great Salt Pond	Town Manager; Building, Zoning, Land Use & Planning; Grant Writer	Long-term
	GSPI.C.4. Consider sea level rise and storm flooding when designing upgrades to or locating public facilities including roads, bridges, structures, utilities, and pump stations	Planning Board; Sewer Commission; Water Commission; Town Manager	Ongoing

**GOAL GSP2: AFFIRM THE GREAT SALT POND’S REPUTATION AS A FIRST CLASS BOATING DESTINATION**

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
GSP2.A. Improve public facilities at the Great Salt Pond to enhance the experience of boaters	GSP2.A.1 Survey visiting boaters’ experience at New Harbor and their opinions of the island while also collecting valuable data in regards to economic contributions to the local economy during their stay	Harbors Department	Ongoing
	GSP2.A.2. Consider offering public restroom and shower facilities, dingy dockage, and storage lockers for New Harbor	Town Manager; Town Council; Harbors Commission; Planning Board	Short-term; medium-term; long-term
	GSP2.A.3. Determine new location for Harbormaster’s Office in the vicinity of New Harbor	Town Manager; Town Council	Short-term
	GSP2.A.4. Establish and maintain a reserve fund dedicated to public improvements for New Harbor	Town Council; Finance Department	Short-term; Ongoing

	GSP2.A.5. Seek grant opportunities to help fund potential upgrade and expansion of public harbor facilities	Harbors Department; Grant Writer; Town Manager	Short-term; Medium-term; Long-term
	GSP2.A.6. Install kiosk that provides information to boaters including the annual Harbor's Guide and a map of the attractions and services surrounding the Great Salt Pond	Harbors Department; GIS Department; Town Manager	Medium-term
GSP2.B. Encourage the use of low impact small watercrafts such as kayaks and canoes	GSP2.B.1. Create and disseminate a blueways map and guide to promote paddling (RC1.C.3.)	GIS; Harbors Department; Tourism Council; Recreation Department	Short-term
GSP2.C. Assure management of the Great Salt Pond and its uses is implemented in a sustainable, balanced, clear and fair manner	GSP2.C.1. Take actions to meet the goals and objectives identified in the locally adopted Harbor Management Plan	Town Manager; Harbors Department; Harbors Commission	Short-term; Medium-term; Long-term; Ongoing
	GSP2.C.2. Develop a plan with the US Coast Guard and US Army Corp of Engineers which clearly delineates areas for rental moorings, private moorings, anchorages, channels, fairways and turning basins	Town Manager; Harbors Department; Town Council	Medium-term
	GSP2.C.3. Determine scientifically-based maximum number of moorings to prevent negative impacts	Harbors Department	Short-term

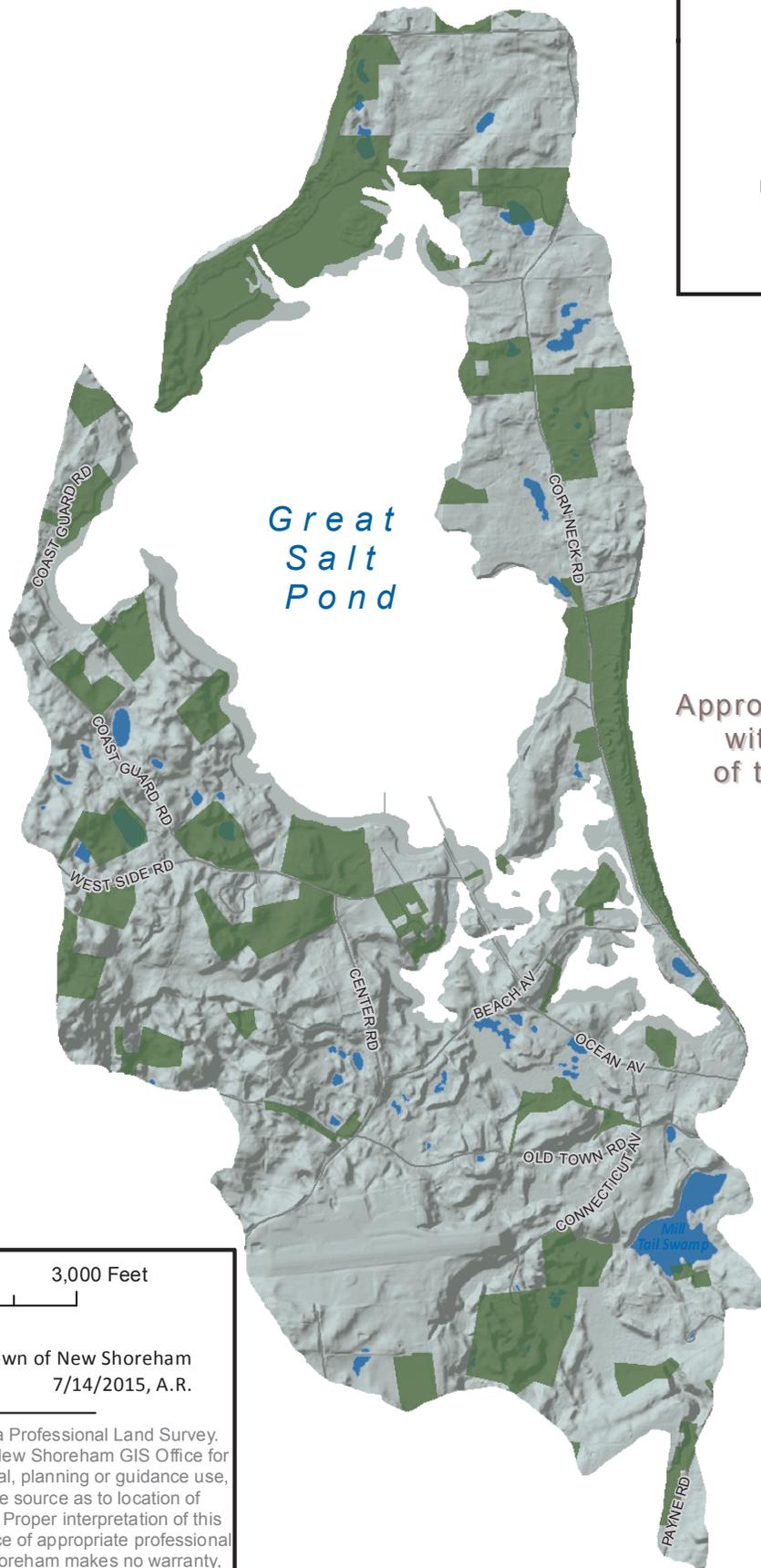
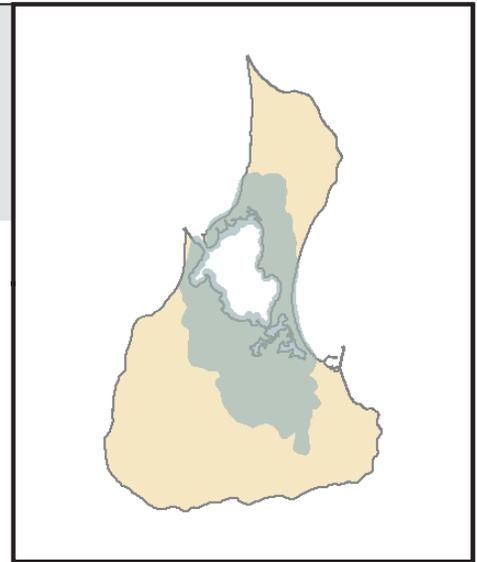
**GOAL GSP3: SUPPORT AN APPROPRIATE MIX OF WATER-BASED ACTIVITIES AND SHORELINE LAND USES WITHOUT COMPROMISING THE SCENIC AND NATURAL QUALITIES OF THE GREAT SALT POND**

POLICY	ACTION	RESPONSIBLE PARTY	TIMEFRAME
GSP3.A. Institute proper land management practices that support the ecological health of the Great Salt Pond	GSP3.A.1. Review current local regulations (subdivision, zoning etc.) to ensure they provide the necessary protections for the Great Salt Pond	Building, Zoning, Land Use & Planning; Conservation Commission	Short-term
GSP3.B. Recognize the clear distinction in appropriate uses between Old Harbor and New Harbor	GSP3.B.1. Update the Great Salt Pond Management Plan	Building, Zoning, Land Use & Planning; Harbors Department	Medium-term
	GSP3.B.2. Seek CRMC approval of locally adopted Harbor Management Plan; keep Harbor Management Plan current through future updates	Harbors Department; Town Manager; Town Council	Short-term; Ongoing
GSP3.C. Recognize and protect public right-of-ways to the shoreline of the Great Salt Pond	GSP3.C.1. Maintain an inventory of public right-of-ways to the shore and disseminate a map to residents and visitors	Town Clerk; GIS Department	Ongoing
GSP3.D. Retain opportunities for public uses of land fronting on the Great Salt Pond	GSP3.D.1. Explore options for the repurposing of the former Coast Guard Station	Town Manager; Town Council; Planning Board	Short-term
GSP3.E. Encourage sustainable fishing, shellfishing and aquaculture practices	GSP3.E.1. Support the Shellfish Commission and other organizations in their efforts to develop aquaculture projects and expand shellfish and finfish resources	Town Council; Harbors Commission; Shellfish Commission	Ongoing

**Timeframes:** Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

# THE GREAT SALT POND WATERSHED & CONSERVED LANDS

2016 Comprehensive Plan - Map GSP 1



Approximately 25% of land within the Watershed of the Great Salt Pond is Conserved.

0 750 1,500 3,000 Feet



Town of New Shoreham  
7/14/2015, A.R.

This map is not the product of a Professional Land Survey. It was created by the Town of New Shoreham GIS Office for general reference, informational, planning or guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. The Town of New Shoreham makes no warranty, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

## Legend

-  Conserved Land
-  Watershed
-  Open Water



## 6. HOUSING

New Shoreham 2016 Comprehensive Plan

### VISION

Residential development on Block Island will be planned and designed in a way that complements and preserves the island's scenic and natural resources. A balance of housing opportunities will be available including attainable and adequate housing for the workforce and others who wish to call Block Island home.

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# HOUSING

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## SUPPORTING DOCUMENTS

*HOUSING WORKS RI 2015 HOUSING FACT BOOK*

*LOW AND MODERATE INCOME HOUSING ACT (RIGL 45-53)*

### Overview

In many ways, housing on Block Island is the community's most important and pressing issue. The availability and affordability of housing is critical to maintaining a year-round island community and strong local economy. High demand for vacation homes and rentals on Block Island has resulted in unattainable housing costs for many year-round residents and a limited supply of seasonal workforce housing. No other Rhode Island municipality has anywhere near the level of dominance by second and vacation homes.

In order to address the shortage of available and affordable housing for citizens of low and moderate incomes, the Town has taken many steps including the creation of a housing trust fund and instituting a tax on seasonal rental housing. Zoning regulations, including density bonuses, accessory apartments and planned development with a focus on affordable housing, have all been adopted and refined to encourage greater use of their provisions, and to assure that the units created serve important housing needs. Both town and privately donated land has been provided for housing development. The needs for seasonal employee housing have also been explored. The organizational, financial and regulatory infrastructure for housing accomplishment is largely in place but the work is not complete and housing needs remain unmet. The Town must continue its activist role and work with partners including the business and environmental communities in order to leverage efforts and achieve mutual goals.

The following housing element assesses the island's current housing stock particularly in terms of affordability, evaluates current and future housing needs, and identifies strategies to increase the supply of affordable housing. This housing element also serves as New Shoreham's Affordable Housing Plan, as required by the Rhode Island Low and Moderate Income Housing Act, RIGL 45-53.

### Block Island Housing Data

Current estimates indicate that there are 1,801 housing units on the island. Block Island has an unusually low housing occupancy rate, in that the majority of housing units are considered vacant because they are not occupied year-round. As counted by the 2010 Census, the number of seasonal housing units is 1,253 out of 1,808 total housing units, nearly 70%. This is the single most defining characteristic of Block Island's housing inventory. This occupancy rate is the lowest in Rhode Island. The next lowest rate is in Charlestown, which

has an occupancy rate of 63.1% (with 32% of the town's total housing units considered vacant specifically due to seasonal use). Under the 2010 Census the statewide occupancy rate is 88.3% (a vacancy rate of 10.7%), but only 3.7% of the state's total housing units are considered vacant due to seasonal use.

Of the 202 units added in the decade between the last two Census counts, only 42 (21%) are considered year-round units. If this trend continues, the number of housing units temporarily occupied as a percentage of the total number of housing units will continue to increase.

Total # Housing Units	2000	Estimated Increase from 2000 to 2013
1,801	1,606	195
<i>2013 American Community Survey</i>		
<i>2000 Census</i>		

Total # Occupied Housing Units	Occupied Housing Units, as % of Total Housing Units	Total # Vacant Housing Units	Vacant Housing Units, as % of Total Housing Units
391	21.7%	1410	78.3%
<i>2013 American Community Survey</i>			

Total Housing Units	# Seasonal Housing Units	Seasonal Housing Units, as % of Total Housing Units
1,808	1253	69.3%
<i>2010 Census</i>		

Total # Housing Units	Total # Seasonal Housing Units	Total # Year-round Housing Units
1801	1248	553
<i>2013 American Community Survey</i>		

# Single Family units	# SF-units, as % of Total Housing Units	# Multi-Family units	# MF-units, as % of Total Housing Units	# Other Housing Units (Mobile Home, Boat, RV, Van, etc...)	# Other Housing Units, as % of Total Housing Units
1618	89.8%	183	10.2%	0	0.0%
<i>2013 American Community Survey</i>					

# Owner Occupied Units	% Owner Occupied Units	# Renter Occupied Units	% Renter Occupied Units
300	76.7%	91	23.3%
<i>2013 American Community Survey</i>			

### **Age of Housing Stock**

Although there is a large component of historical structures that remain, Block Island's housing is relatively young. The median year built of the housing units on Block Island, according to the American Community Survey (2013), is 1975.

Year	Estimate	Margin of Error	%	% Margin of Error
1939 or earlier	503	+/- 76	27.9%	+/- 4.2
1940 to 1949	70	+/- 32	3.9%	+/- 1.8
1950 to 1959	67	+/- 31	3.7%	+/- 1.7
1960 to 1969	155	+/- 50	8.6%	+/- 2.7
1970 to 1979	204	+/- 44	11.3%	+/- 2.4
1980 to 1989	391	+/- 74	21.7%	+/- 4.0
1990 to 1999	258	+/- 59	14.3%	+/- 3.3
2000 to 2009	153	+/- 50	8.5%	+/- 2.8
2010 or later	0	+/- 13	0.0%	+/- 2.1
Total Housing Units	1,801	+/- 48	-	-
<i>2013 American Community Survey</i>				

## Housing Conditions

There are no particular areas on Block Island where a concentration of units with physically poor housing conditions exists. Because of its low population, no published data is available for Block Island, but discussions with the local Building Official indicate that the overall condition of the existing housing stock is remarkably good. However, some housing units on Block Island, particularly seasonal housing and seasonal workforce housing, suffer from deteriorating conditions and residents in some cases live in substandard housing conditions. The Town has utilized resources in the past such as weatherization grants to assist in improving housing conditions.

### Recent Housing Development Trend

Over the last two decades, while the rate of home construction and rehabilitation has fluctuated along with the national economy, the trend on the island has been consistent in that most new units are being built as vacation homes, including those built as replacements to modest dwellings which have been torn down. The exception is those units that have been restricted for affordability through public and non-profit efforts. In addition, there have been conversions of existing residences to larger, year-round houses, many occupied by the increasing number of former summer residents retiring and living on Block Island year-round.

Based upon building permit data through the end of 2014, it was estimated that since the 2010 Census there have been about 62 new housing units added on the island. However 11 of these were replacements (single family dwellings constructed in place of “tear-downs”), meaning a net gain of about 51 units. Among these were 17 accessory apartments. Therefore, a fairly accurate estimate of housing units on the island, as of 2015, is 1,850 units, predominately single family (85%). It is important to note that the percentage of apartments increased from 3% to 6% of the total housing units from the 2000 Census to the end of 2013.

As demonstrated by the table below, Block Island has had 9 single family dwellings constructed each year over the past decade.

<b>YEAR</b>	<b># of New Single Family Dwellings</b>	<b># of Replacement Dwellings*</b>	<b>Accessory Apartments</b>
2014	9	3	3
2013	9	2	5
2012	4	2	0
2011	5	2	3
2010	7	2	6
2009	2	4	1
2008	4	4	4
2007	40	6	4
2006	9	6	3
2005	7	N/A	5
<b>TOTALS</b>	<b>96</b>	<b>31</b>	<b>34</b>

Source: New Shoreham Building Department

\* A completely new dwelling following the demolition of existing dwelling on same site

## Housing Cost

High housing costs are mainly driven by the demand for seasonal housing and subsequent high land values on the island. Except when involving public initiatives or funding or both, houses are rarely priced below a million dollars, and condominium sales prices, while lower, are still beyond the reach of most households. Seasonal rental prices make most rental units unaffordable for a twelve-month rental by year-round residents.

As contained in the HousingWorks RI 2015 Housing Fact Book, the median home price on the island is \$1,175,000. The annual report by HousingWorks assumes a down payment of 3.5% and a 30-year mortgage to determine an estimated required monthly payment of \$7,566. The annual income needed to afford this monthly payment is over \$300,000. The median home price and required annual income are by far the highest in the state. For some perspective, the state's estimated average monthly cost of a median price home is \$1,689.

Block Island's home prices are not driven by those who simply meet the minimum income requirements to afford a median priced home, but those with much greater financial resources given much of these homes serve as second homes for the owners.

High housing costs are also exacerbated by the increased costs in construction materials and labor due to the additional transportation costs of ferry and/or air.

## THE CURRENT MEDIAN SINGLE FAMILY HOME SALES PRICE

**\$1,200,000** (2015, 22 SALES)

### General Trend in Home Sales Price

In comparing the average sales price of homes on Block Island to household income, the issue of attainable housing for the workforce is apparent. The median household income of \$90,491 is less than a third of the necessary income in order to be able to afford an average cost home on Block Island. The disparity between wages and home prices makes it incredibly difficult for workers to afford to live on Block Island and unlike other communities in Rhode Island, daily commuting from a nearby town is typically not a realistic option.

Table H-9 Housing Costs						
Single Family			Multi-Family		Condo	
Year	Median Sales Price	# of Sales	Median Sales Price	# of Sales	Median Sales Price	# of Sales
2014	\$ 1,175,000	31	N/A	0	\$ 560,000	5
2013	\$ 1,100,000	23	N/A	0	\$ 375,000	3
2012	\$ 1,448,000	15	\$ 690,000	2	\$ 652,500	4
2011	\$ 970,000	7	\$ 1,425,000	3	\$ 530,000	3
2010	\$ 1,275,000	3	N/A	0	N/A	2
2009	N/A	0	N/A	0	N/A	0
2008	\$ 620,000	1	No Data Available		\$ 2,000	1
2007	\$ 1,250,000	2			\$ 392,000	1
2006	N/A	0			N/A	0
2005	N/A	0			N/A	0
2004	N/A	0			No Data Available	

Source: RILiving.com Home Sales Statistics, RI Association of Realtors

There is limited available data on cost of rentals on Block Island. Below are some figures which represent estimated rents for two-bedroom units averaging between \$1,100 and \$1,200 per month. This data does not represent the cost of rental housing during the summer months. Many rental units are not available for year-round residencies as the owners either occupy the property in the summer or generate income from weekly or monthly vacation rentals during peak summer months.

Year	2-bedroom Units
2014	N/A
2013	\$1,154
2012	N/A
2011	\$1,150
2010	\$1,165
2009	\$1,170
2008	\$1,232
2007	\$1,142
2006	\$1,172
2005	N/A
RI Rent Survey, HousingWorks	

## Affordable Housing

Under the RI Low and Moderate Income Housing Act, housing units which meet the definition of low or moderate income (LMI) units and which are included in the inventory of such units as a percentage of the year-round housing units in a municipality, must have been produced with the assistance of some form of public subsidy, whether municipal, state, or federal, and their continuing affordability must be assured for 99 years through a deed restriction and/or land lease.

These units are priced to be affordable to low or moderate income households, with housing costs restricted to 30% of gross annual income, as follows:

Up to 120% of area median income, adjusted for family size, for ownership units

Up to 80% of area median income, adjusted for family size, for rental units

Area median incomes, income limits for low and moderate income households, and housing prices to meet those income limits are established annually by Rhode Island Housing, who also maintains the official count of the LMI units in each municipality. Under State law, the total number of a low or moderated income housing units in a (non-urban) municipality should be in excess of 10% of the total number of year-round housing units, or the town is subject to the provisions of a comprehensive permit application. A comprehensive permit is a single application to a local review board for a housing development which may exceed local zoning and other land use requirements provided that the proposed development include at least twenty-five percent (25%) of the housing as low or moderate income.

The following table summarizes Block Island's inventory of low and moderate income housing units, as of October 2016.

<b>Table H-11 New Shoreham Low and Moderate Income Housing Units</b>			
<b>Development Name</b>	<b>Units &amp; Type</b>	<b>Zoning District / Zoning Ordinance/ Density Increase</b>	<b>Sponsor</b>
Searles Ball Apartments	16 rental	Service Commercial/ Section 405. Affordable Housing Greater than 100%: 16 units on 2.3 acres	BI Economic Development
West Side Development	20 ownership	Service Commercial/ Section 405. Affordable Housing/ 10K SF lots / 20K required	BI Economic Development
Old Harbor Meadows	8 ownership 1 rental	PD (Planned Development)/ Section 319. Planned Development/ Greater than 100%	BI Economic Development
Beacon Hill Development	7 ownership	Residential A / Section 405. Affordable Housing Greater than 100%: 7 houses on a total of 12 acres	BI Economic Development
Pilot Hill Road	4 ownership	Residential B/ Section 405. Affordable Housing/ 4 houses on a total of 3 acres	Town
Seawinds	1 ownership	Residential B Zone/ Section 405. Affordable Housing	Private Developer; Comprehensive Permit
Champlin Road	2 ownership	Residential A/ Section 405. Affordable Housing/ Greater than 100%, lots less than 1 acre	Housing Board
Totals	42 ownership 17 rentals	N/A	N/A

All units above qualify as low and moderate income housing under the RI Low and Moderate Income Housing Act (as verified by Rhode Island Housing), and are counted towards the required percentage of the island's year-round housing according to the 2010 Census (555 units).

In total, there are 42 ownership and 17 rental units on Block Island which qualify as low or moderate income housing. These units total 10.63% of the total 555 year-round housing units on Block Island. **BLOCK ISLAND IS THE FIRST RHODE ISLAND TOWN TO MEET AND MAINTAIN OVER 10% OF ITS YEAR-ROUND HOUSING UNITS AS LOW OR MODERATE INCOME.** As construction of year-round housing increases, additional low-and-moderate income housing units will need to be created in order to maintain the state's minimum 10%. While New Shoreham does

strive to maintain its 10% minimum of state defined LMI housing, the town's goals and efforts related to affordable housing are more importantly directed towards addressing the real and ongoing housing needs specific to Block Island.

Locally, New Shoreham has expanded eligibility for affordable housing up to 140% gross median annual for both ownership and rental units. These units must also be deed restricted in perpetuity. The reason that a higher income range still qualifies for an affordable unit on Block Island is due to the large gap between market prices for homes on the island, and the prices that qualify as "affordable" under most public subsidy rules (annually costing less than about 30% of the income of a household) as described below.

The following table summarizes Block Island's additional inventory of units with affordability restrictions. These units do not qualify as low-and-moderate income housing units because of the higher income limit, or because they were not created with a government subsidy. The accessory apartments are scattered throughout the island and require verification by the Building Official following inspection every three years.

<b>Development</b>	<b>Units &amp; Type</b>	<b>Density Increase</b>	<b>Sponsor</b>
Salt Pond Settlement PD Zone	9 ownership out of 32 total units	Greater than 100%	Private
Accessory Apartments	37 rental	Double	Private
Totals	9 ownership 37 rental		

## HOUSING NEEDS

### *Year-Round Housing*

The Housing Board has found that there is a strong demand among residents for single family ownership units. Over the years, the Block Island Housing Board has worked to quantify the actual demand for year-round housing on the island. The Housing Board developed and distributed an affordable housing questionnaire which asks respondents what their needs and preferences are for affordable year-round housing – ownership vs rental, type of unit (single family, single family attached, condo, apartment, townhouse) and number of bedrooms – as well as the income they have available for monthly housing expenses. Of the 55 who responded to the question of ownership vs rental, 36 (65%) preferred ownership, 10 (18%) preferred rental and 9 (17%) had no preference.

**AS OF 2015 THE HOUSING BOARD HAS A LIST OF 59 RESIDENTS, REPRESENTING BOTH INDIVIDUALS AND FAMILIES, WITH A NEED FOR STABLE YEAR-ROUND AFFORDABLE HOUSING.**

With an inventory of 59 low-and-moderate income housing units, Block Island has only met half its known demand for affordable year-round housing for its residents. A significant portion of these households have

already been deemed income eligible to purchase or rent affordable units. These residents represent over 10% of Block Island's year-round community and their housing is critical to sustaining the island as a healthy and viable year-round community. Provision of these units, subsidized by reduced-price or donated land and built at cost, must continue to be a priority effort of the Town and the Housing Board.

Year-round affordable housing units, both ownership and rental, must be created in response to actual housing needs on the island, whether they qualify under the RI Low and Moderate Income Housing Act or not, and even if the Town continues to meet or exceed the goal of greater than 10% low and moderate income year round housing units as required under the state law. Year-round affordable housing should consist of a variety of housing types, both ownership and rental, to meet various housing needs, including single family units, duplexes and condominiums; secondary dwellings and caretaker houses; and accessory apartments and apartments over retail.

The development of five single family affordable homes on a 4.5 acre parcel in the southwest corner of the island, and designed according to the reduced density allowed non-profit developments as well as flexible residential design, is underway with construction and occupancy expected by 2016 or early 2017.

### *Seasonal Worker Housing*

In addition to the need for year-round housing is the need for seasonal housing for the employees of the hotels, inns, restaurants and shops that serve the tourism industry. Unless they have a family home on the island or local connections that include shelter, all seasonal employees need to either have housing provided as part of their employment or locate it on their own. As with homeownership, there is a dual market for seasonal rentals – one marketed to vacationers, and one needed for seasonal workers who do not have the resources to compete for housing with the summer visitors.

Many businesses do provide housing for all or some of their employees, but many seasonal workers struggle to find decent and affordable housing on the island and as a result live in sub-standard conditions.

### *Senior Housing*

Currently, none of New Shoreham's low-and-moderate income housing units are designated as senior housing. In recent history, there has been relatively little interest on Block Island for housing specifically designed and dedicated for seniors. In the early 1990s when a project (Martin House) was to have been so-limited, applicant interest was so low that the age limitation was dropped. However, increased demand for housing designed for seniors, affordable and market-rate, can be expected as the population ages. Between the 2000 and 2010 Census, there was a shift in the age breakdown of New Shoreham's population with greater numbers of older and retired persons as compared to the very young and working age adults. As Block Island's senior population continues to grow, so may the need for housing designed for one and two person households at a variety of price ranges. There will be a growing need for smaller, empty-nester type homes for residents wishing to "downsize" their living accommodations and assisted living or caretaker housing.

### *Special Needs*

The island is planning for housing that will include units designed to accommodate those with special needs such as a vision or mobility disability. However, the number of persons sharing any single special need is so small that providing such services through a housing-based program is rarely if ever likely to be feasible on the island.

### *Homeless*

There is no homeless shelter or shelter beds currently available on Block Island, nor a recorded homeless population. However, unofficial helping hands of this close-knit island community do provide assistance for those at the brink of homelessness or without safe shelter.

## HOUSING ORGANIZATIONS

### *Block Island Economic Development Foundation*

The Block Island Economic Development Foundation (“BIED”) has been a leader in the development of affordable housing units, including nine units at Old Harbor Meadows, and the 20-unit all-affordable project on West Side Road.

### *Block Island Housing Board*

The Block Island Housing Board was established to administer the Block Island Housing Trust Fund which is principally funded by a seasonal house rental tax, limited to 1% of the prevailing market rate. The seasonal rental tax is assigned against every property owner or person who rents, leases or lets any living quarters in a seasonal manner (six months or less). It consists of no more than one percent (1%) of the actual rental received for seasonal rental.

The Housing Board can also accept loans, grants and private donations. The duties of the Housing Board are to use its available funding to create affordable year-round and seasonal housing. It can do so by purchasing, selling, developing or restoring real estate and then selling, renting or leasing property with appropriate restrictions to ensure affordability in perpetuity.

As of 2015, the Housing Board has been responsible for the development of two single family ownership units, with five more to be constructed in 2016.

## LOCAL HOUSING PROGRAMS AND POLICIES

### **Town of New Shoreham Zoning Provisions**

On Block Island addressing housing needs has been a community effort involving a truly broad array of organizations and people, including not just the Town and nonprofits, but individuals who have made donations of land as a result of zoning incentives. Since the last Comprehensive Plan update (2009) there have been many efforts to increase opportunities, as well as many completed projects. This can be traced to the regulatory facilitation for such housing, which is particularly strong and is summarized below.

### *Section 405 Affordable Housing*

The principal zoning regulation providing for the development of affordable housing units is Section 405 which allows an increase in residential density for the provision of affordable units. Market units must have the minimum required lot area for the appropriate zone, but affordable units can be approved for half the minimum required lot area per unit. Affordable units in a non-profit development can be approved for a quarter of the minimum required lot area. The density increase is granted as a special use permit by the Zoning Board of Review, with development plan review by the Planning Board. As of 2015 this provision has resulted in the development of thirty-one LMI and two affordable single family home ownership units. Both projects were developed by non-profits.

### *Section 319 Planned Development Zone*

The planned development regulations were initially established for the purposes of developing affordable units, or just below rate market units, as part of a major development or redevelopment of one or more parcels in certain zoning districts. It allows the Town Council to rezone parcels as a PD Zone following the approval of a development plan by the Planning Board. As part of the approval, the Town Council can grant waivers or relief from the requirements of the underlying zoning district to allow a variety of uses, with an emphasis on affordable housing, as well as flexible dimensional standards.

As of 2015 this provision has resulted in the development of eight ownership and one rental housing unit at Old Harbor Meadows, all which qualify as state LMI units, and nine affordable ownership units (out of thirty-two) at Salt Pond Settlement, which involved the conversion of an inn to condominiums.

### *Section 513 Accessory Apartments*

This section allows the Zoning Board to grant a special use permit to allow an accessory apartment in either a principal residential building or accessory structure for rental to either year-round residents or in the case of such units provided in the commercial zones, to seasonal workers. Vacation rental is prohibited, enforced by the Building Official in the form of a signed affidavit recorded with the deed, and by periodic inspection. An owner may voluntarily deed restrict such apartment as affordable in exchange for a property tax reduction equivalent to the value of the accessory apartment. In such cases the unit is monitored by the Housing Board to ensure that the renter meets the income limits. The deed restriction can be removed by the property owner, but not without substantial penalty.

As of 2015, this regulation has allowed 37 year-round accessory apartments, none of which qualify as low-and-moderate income housing units, even if deed restricted because the units were not created with a public subsidy.

### *Section 403/404 Secondary Dwelling and Attached Multi-Family Development*

Section 403 of the zoning ordinance was intended to provide additional housing opportunities for Block Island families by allowing more than one dwelling unit per lot provided certain lot area and dimensional standards related to the secondary dwelling are met. Section 404 allows the development of multi-units in existing buildings in the commercial zones. Both regulations also allow the Zoning Board to grant dimensional variances (lot areas, setbacks, coverages) if the secondary dwelling is to be affordable, (such variances otherwise prohibited for secondary dwellings).

As of 2015, while a number of secondary and multi-family units have been developed, it has not resulted in the creation of units with affordability restrictions or low-or-moderate income units.

### *Section 411 Commercial/Residential Mixed Use*

This section, modified in 2009, allows the establishment of apartments over stores in the mixed use and commercial zones provided at least 40% of the units (or a minimum of one) are either employee housing (as regulated in Section 513) or state defined LMI units.

### *Section 712 Comprehensive Permits for Low and Moderate Income Housing*

This section includes the procedures for the provision of low and moderate income units by either non-profit or private developer as a comprehensive permit as allowed under the RI Low and Moderate Income Housing Act.

As of 2015 there has only been one comprehensive permit application, which resulted in four market rate units and one qualified LMI unit.

## POLICIES & STRATEGIES

### Adaptive Reuse of Existing Structures

Where possible, there is a preference for achieving affordable housing units through creative reuse of existing structures. This is exemplified by the Salt Pond Settlement, where below-market units were created through adaptive reuse of an inn.

Existing structures, otherwise slated for demolition, preserved from other sites can also be used. A program to move and re-use “tear-downs” for conversion into affordable or public housing units is supported by the demolition delay provided for in the zoning ordinance. The Demolition Review ordinance (Section 711) is designed to allow alternatives to be taken, including relocation of the structure onto another site, where it can become an affordable unit. However, costly upgrades, including bringing structures into compliance with existing building codes, can be a deterrent.

Adaptive re-use of structures on-site and the relocation of structures to be otherwise demolished are viable options, but require a program in place to both provide funding for conversion (the subsidy) and receiving land.

### Appropriately Locate Affordable Housing

There is also a preference for sites requiring less auto dependence and in areas that are already served by infrastructure, facilities and municipal services. Structures located within the village (downtown and transition areas) are especially appropriate for such adaptive reuse, because of the available density and variety of allowable uses and housing types. Targeting housing development in these areas can reduce municipal and resident expenses. Infrastructure extensions including new roads, sewers, water mains, and electricity lines can be expensive, even without taking into account the cost of maintaining the infrastructure over time. While these costs are often not borne by the municipality, they are spread across all of the rate payers, increasing user fees and the overall cost of living in a community. From an overall cost perspective,

the best place to target new residential development is within existing developed areas and for New Shoreham that suggest the village area. However, at the same time it is important that a diversity of housing opportunities be available throughout the island and not concentrated to one area. Therefore, there is support for the creation of well-sited affordable units outside of the village as well.

### **Advocate for Fair and Effective Affordable Housing Legislation at the State Level**

It is the Town's position that all units which are developed or established with a local subsidy, including density bonuses for private developers, and which are deed restricted, should be counted on the Low-and-Moderate Income Housing Chart despite being sold to residents with slightly higher median incomes. The skewed housing market on Block Island can justify this increase. An adjustment for Block Island should be part of amendments to the state law that allows some accommodation for local conditions.

### **LOCAL EFFORTS INCLUDE PETITIONING THE STATE TO EXPAND THE INCOME RANGE TO 140% OF AREA MEDIAN INCOME FOR INCLUSION ON THE LOW AND MODERATE INCOME HOUSING CHART.**

### **Develop a Housing Program for Municipal Employees**

Alternatives for addressing the housing needs of town or school employees otherwise unable to afford to live on the island, whether through housing subsidies for key employees or the acquisition of housing units must be explored. Cost-effective options to accommodate seasonal municipal employees and consultants for the town needing temporary housing should also be explored.

### **Support Construction of Seasonal Workforce Housing**

A great challenge to operating a business on Block Island is the lack of affordable and temporary housing for the seasonal workforce. As such, many businesses including inns, restaurants, and shops provide housing as part of their employment package in order to recruit seasonal workers. Seasonal workers not provided with housing often live in sub-standard conditions including overcrowding in order to afford housing during the peak summer season.

To address this critical housing and economic development issue, the Town should work cooperatively with employers to promote the development of multi-unit temporary employee housing. Seasonal employee housing can be developed with relatively low construction cost per unit by taking advantage of the sharing of facilities such as kitchens. Allocating land and minor funding from the Housing Board should be explored along with community cooperation in developing and furnishing the units.

### **Evaluate Local Tax Assessment Policy**

Steps the Town could take to mitigate any negative impacts of tax revaluation should be identified and explored. The Town could also petition the RI Legislature to enact authorization for New Shoreham to provide homestead tax exemption as has been done for Providence and Woonsocket, providing reduced property taxes for dwellings occupied as a principal residence by a registered voter, and without seasonal

rental. An additional strategy related to local tax policy that should be explored is providing tax incentives to owners for offering year-round rental of their homes to income eligible residents.

## Review and Update Local Regulations Related to Housing

Block Island has taken many steps over the years in its regulations to facilitate housing affordability. However, it is still necessary to review the zoning and land use regulations to ensure that there are adequate provisions for housing alternatives in all appropriate zones, including affordable units, multi-family and mixed use buildings, family compounds and secondary dwellings. The establishment of local regulations to address seasonal workforce housing development should be explored. There is a particular need for regulations related to the provision of on-site seasonal housing for hospitality businesses. New regulations should include a requirement that new or expanding businesses relying on seasonal workers submit plans for how employees will be housed as part of project review and approval.

## Formalize Affordable Housing Units in Perpetuity

There are many ways of reducing the price of a given housing unit and assuring that it stays that way. Communities like Block Island commonly use federal grants to help write down the unit price, and in return attach a deed restriction assuring that the initial level of affordability will be maintained over time and ownership change. Potential locations exist all over the island. The units produced should include ones adapted to meet requirements for seniors and for households having special needs that can be met through adaptation of the housing unit.

As of 2015, there are also about thirty-seven accessory apartments established under Section 513 of the Zoning Ordinance that are not deed restricted or have any type of long term legal protection to keep them as attainable year-round apartments. A stronger monitoring program and/or a tax abatement program should be established to maintain this inventory of year-round apartments.

## Inclusionary Zoning

Block Island does not currently have an inclusionary zoning ordinance. The town will explore inclusionary zoning as a requirement of larger-scale residential development with the option to provide a payment in lieu. A municipal subsidy program including a substantial density bonus would be required to make projects feasible. An inclusionary zoning ordinance can assist the town in maintaining its percentage of LMI units as new residential development occurs. Some benefits of inclusionary zoning are that it requires minimal municipal funding and a distribution of affordable housing units throughout a community rather than concentrated in one location. However, inclusionary zoning will not produce a significant number of units during weak housing markets and in communities with a limited number of large-scale residential development, as is the case on Block Island. The payment in lieu option could provide an additional source of funding or land to the Town for affordable housing efforts.

## Mixed-Use Development

Mixed-use development in appropriate locations would provide the island with a greater diversity in type of housing stock. This type of development makes more efficient use of land and infrastructure and would be appropriate within and nearby the village area (Old Harbor and New Harbor). Housing units could be created over existing commercial structures.

### Redevelopment of Vacant or Underutilized Public Property

Efforts to address housing needs should look for opportunities to use existing buildings instead of new construction to avoid the possible negative impacts related to new development. Buildings currently owned by the Town could provide appropriate locations for the creation of affordable housing units or temporary workforce housing. This strategy has the potential to create units at lower development costs and with less visual impact than new development. However, it could eliminate future use of the public property for other potentially needed public uses.

## Goals, Policies & Implementation Actions

### GOAL HI: Meet the needs of residents for attainable year-round homeownership and rental housing opportunities

POLICY	ACTION	RESPONSIBLE PARTY	TIMEFRAME
HI.A. Promote the production of attainable year-round housing	HI.A.1. Consider adopting an inclusionary zoning ordinance with a municipal subsidy system and option to pay-in-lieu	Planning Board	Medium-term
	HI.A.2. Identify additional sources of funding for Housing Trust Fund	Town Council; Finance; Town Manager; Housing Board	Ongoing
HI.B. Increase the supply of rental housing	HI.B.1. Explore providing tax incentives to owners who offer year-round rental of their home to income eligible residents	Town Council; Finance; Town Manager; Housing Board	Medium-term
HI.C. Support redevelopment of vacant or underutilized structures into affordable housing units	HI.C.1. Identify both town and privately owned properties which could be suitable sites for the development of affordable residential units	LCAS; Planning Board; Town Manager; Housing Board	Short-term
HI.D. Protect existing affordable housing stock	HI.D.1. Monitor deed restrictions of affordable housing units and act proactively to ensure units do not expire and transition to market-rate housing	Housing Board	Ongoing
HI.E. Continue to permit forms of housing that are affordable without subsidies such as accessory apartments	HI.E.1. Establish a stronger monitoring program and/or a tax abatement program for accessory apartments	Planning Board; Town Council	Ongoing
		Town Manager; Town Council; Building, Zoning, Land Use & Planning; Finance	Medium-term
HI.F. Proactively plan for the future housing needs of the community	HI.F.1. Evaluate demand for senior and special needs housing	Housing Board; Building, Zoning, Land Use & Planning; Planning Board	Short-term
	HI.F.2. Acquire and hold land for future affordable housing needs	Town Council; Housing Board	Ongoing

HI.G. Support initiatives to reduce housing cost including utility costs	HI.G.1. Evaluate current tax assessment policies and explore instituting a homestead tax exemption	Town Council; Finance; Tax Assessor; Town Manager	Medium-term
	HI.G.2. Investigate housing subsidy program option for workers (current and retired) fulfilling necessary government functions	Town Council; Finance; Town Manager	Medium-term
	HI.G.3. Explore options for town provision of seasonal and/or temporary housing / overnight accommodations for temporary town employees or contractors	Planning Board; Town Manager; Facilities Manager; Town Council	Medium-term
HI.H. Continue to exceed the state's required minimum of 10% low-and-moderate income housing			
HI.I. Advocate for fair and effective affordable housing legislation at the state level	HI.I.1. In partnership with other municipalities, participate in review and update of current affordable housing legislation	Town Council; Housing Board; Town Manager	Ongoing

**GOAL H2: Achieve sustainable housing production which results in a diversity of housing choices and healthy housing conditions**

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
H2.A. Ensure adequate and affordable housing is available for seasonal workforce	H2.A.1. Foster public private partnerships to address seasonal workforce housing needs	Town Manager; Town Council	Short-term
	H2.A.2. Advance zoning measures to facilitate the provision of seasonal workforce housing by the private sector	Building, Zoning, Land Use & Planning; Planning Board	Short-term
	H2.A.3. Conduct an education and outreach campaign to raise awareness about seasonal workforce housing needs; encourage owners to rent rooms to seasonal workers	Housing Board; Town Council	Ongoing
H2.B. Maintain a housing stock that is safe, healthy and sanitary	H2.B.1. Inform homeowners about resources to assist with home repair, maintenance and winterization	Building, Zoning, Land Use & Planning; Minimum Housing Inspector	Ongoing
H2.C. Ensure new housing development is directed to areas with existing infrastructure and designed in a way that minimizes impacts on natural and scenic resources	H2.C.1. Promote low housing densities where public services are unavailable and are not planned	Planning Board	Ongoing
	H2.C.2. Promote conservation-style development requiring open space set asides in all new major subdivision	Planning Board	Ongoing

**Timeframes:** Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

## Appendix H-I Housing Cost Burden

The Comprehensive Housing Affordability Strategy (CHAS) data, available through the US Department of Housing and Urban Development, is intended to determine the number of households in need of housing assistance by estimating the number of households which spend greater than 30% of household income on housing, with a focus on low income renters. The following data tables are required by the State for inclusion in local Comprehensive Plans.

According to CHAS data, there is an estimated 25% of households on Block Island that have a housing cost burden (paying more than 30% of their income on housing) and 8% that are severely housing cost burdened (paying more than 50% of their income on housing).

<b>Housing Cost Burden</b>				
<b>Total Households w/ a Housing Cost-burden</b>			<b>Total Households</b>	<b>Total Households w/ a Housing Cost-burden as a percent of Total Households</b>
<i>Households with a Housing Cost Burden &gt; 30% but &lt; 50%</i>	<i>Households with a Housing Cost burden &gt; 50%</i>	<i>Total Households with a Housing Cost-burden</i>		
68	32	100	395	25.3%
* Source: HUD CHAS data derived from 2012 ACS 5-Year Estimates.				

<b>Severe Housing Cost Burden</b>		
<b>Total Households that are Severely Housing Cost-burdened</b>	<b>Total Households</b>	<b>Total Households that are Severely Housing Cost-burdened as a percent of Total Households</b>
32	395	8.1%
* Source: HUD CHAS data derived from 2012 ACS 5-Year Estimates.		

<b>Number of Low-and-Moderate Income households that are housing cost burdened, also as a percent of total LMI households.</b>					
<b>LMI Households w/ a Housing Cost-burden</b>				<b>Total LMI Households</b>	<b>Total LMI Households w/ a Cost burden, as a % of Total LMI Households</b>
<i>Household Income &lt;/= 30% HAMFI</i>	<i>Household Income &gt; 30% to &lt;/= 50% HAMFI</i>	<i>Household Income &gt;50% to &lt;/= 80% HAMFI</i>	<b>Total LMI Households that are Cost-burdened</b>		
25	8	4	37	80	46.3%
Housing Cost-burdened - Households paying greater than 30% of their income on housing.					
LMI Household - A household earning up to 80% of the area median income.					
* Source: HUD CHAS data derived from 2012 ACS 5-Year Estimates.					

<b>Number of Low-and-Moderate Income households that are severely housing cost burdened, also as a percent of total LMI households</b>					
<b>LMI Households that are Severely Housing Cost-burdened</b>				<b>Total LMI Households</b>	<b>Total LMI Households that are Severely Cost-burdened, as a % of Total LMI Households</b>
<i>Household Income &lt;= 30% HAMFI</i>	<i>Household Income &gt; 30% to &lt;= 50% HAMFI</i>	<i>Household Income &gt;50% to &lt;= 80% HAMFI</i>	<b>Total LMI Households that are Severely Cost-burdened</b>		
10	4	4	18	80	22.5%
Severely Housing Cost-burdened - Households paying greater than 50% of their income on housing.					
LMI Household - A household earning up to 80% of the area median income.					
* Source: HUD CHAS data derived from 2012 ACS 5-Year Estimates.					

<b>Number of LMI renter households that are housing cost-burdened, also as a percent of total LMI households</b>					
<b>LMI Renter Households w/ a Housing Cost-burden</b>				<b>Total LMI Households with a cost-burden</b>	<b>Total LMI Renter Households w/ a Cost burden, as a % of Total LMI Households</b>
<i>Household Income &lt;= 30% HAMFI</i>	<i>Household Income &gt; 30% to &lt;= 50% HAMFI</i>	<i>Household Income &gt;50% to &lt;= 80% HAMFI</i>	<b>Total LMI Renter Households that are Cost-burdened</b>		
4	0	0	4	37	10.8%
Housing Cost-burdened - Households paying greater than 30% of their income on housing.					
LMI Household - A household earning up to 80% of the area median income.					
* Source: HUD CHAS data derived from 2012 ACS 5-Year Estimates.					

<b>Number of LMI owner households that are housing cost-burdened, also as a percentage of total LMI households.</b>					
<b>LMI Owner Households w/ a Housing Cost-burden</b>				<b>Total LMI Households with a cost-burden</b>	<b>Total LMI Owner Households w/ a Cost burden, as a % of Total LMI Households</b>
<i>Household Income &lt;= 30% HAMFI</i>	<i>Household Income &gt; 30% to &lt;= 50% HAMFI</i>	<i>Household Income &gt;50% to &lt;= 80% HAMFI</i>	<b>Total LMI Owner Households that are Cost-burdened</b>		
20	8	4	32	37	86.5%
Housing Cost-burdened - Households paying greater than 30% of their income on housing.					
LMI Household - A household earning up to 80% of the area median income.					
* Source: HUD CHAS data derived from 2012 ACS 5-Year Estimates.					



# 7. ECONOMIC DEVELOPMENT

New Shoreham 2016 Comprehensive Plan

## VISION

**Block Island will have an economy which meets the financial and employment needs of its residents while providing the necessary products and services to support a year-round community and influx of seasonal visitors. Island industries, including tourism, will have low impact on the natural, cultural, and scenic resources of this special place.**

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# ECONOMIC DEVELOPMENT

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## SUPPORTING DOCUMENTS

Rhode Island Rising, Rhode Island State Guide Plan, Economic Development Element, RI Statewide Planning Program, December 2014.

Town of New Shoreham Broadband Plan and Network Designs. Submitted on behalf of EA Engineering, Science & Technology, Inc. for Broadband Rhode Island and the Rhode Island Office of Digital Excellence. Prepared by: Tilson, January 13, 2015.

## Overview

Over its settled history, Block Island's economy has shifted from farming and fishing to tourism. While there are a number of jobs providing necessary government and local services, Block Island's modern economy is principally based on its status as a highly desirable vacation and tourist destination. The majority of businesses on the island are located within the Old Harbor Historic District and are open seasonally.

The tourism industry remains strong and has the potential to increase with the addition of amenities and activity offerings. Both public and private sectors must work to ensure that the tourism industry does not exceed the island's carrying capacity and impact the valuable natural and scenic resources on which it depends.

There is a desire to increase the economic opportunity and diversification of industry on the island but challenges exist including limited commercial land, a small year-round population, high utility and transportation costs, and the need for upgraded telecommunications infrastructure. Some of these challenges are easier to overcome than others and the town has already taken significant steps to reduce these barriers. Future economic development supported and pursued on Block Island should:

- ✓ CREATE MORE YEAR-ROUND EMPLOYMENT OPPORTUNITIES
- ✓ BE IN KEEPING WITH THE ISLAND'S SCENIC NATURAL BEAUTY
- ✓ BE OF APPROPRIATE SCALE
- ✓ SUPPORT EXISTING BUSINESSES AND ATTRACT NEW INDUSTRY
- ✓ HAVE MINIMAL IMPACT ON THE ENVIRONMENT AND THE ISLAND'S NATURAL RESOURCES
- ✓ HELP ATTRACT AND RETAIN FAMILIES AND SUSTAIN A VIBRANT YEAR-ROUND COMMUNITY

## Employment

*Table 11-1 New Shoreham Employment* illustrates the tourism industry's leading role in providing employment opportunities on the island with high figures in the categories of accommodations, food services, and retail. These figures do not include the large numbers of seasonal workers who come to the island to work in hospitality and retail. While many island residents either own seasonal businesses or are employed in them, the majority of the tourism related jobs on Block Island are held by non-resident young workers, including many international citizens.

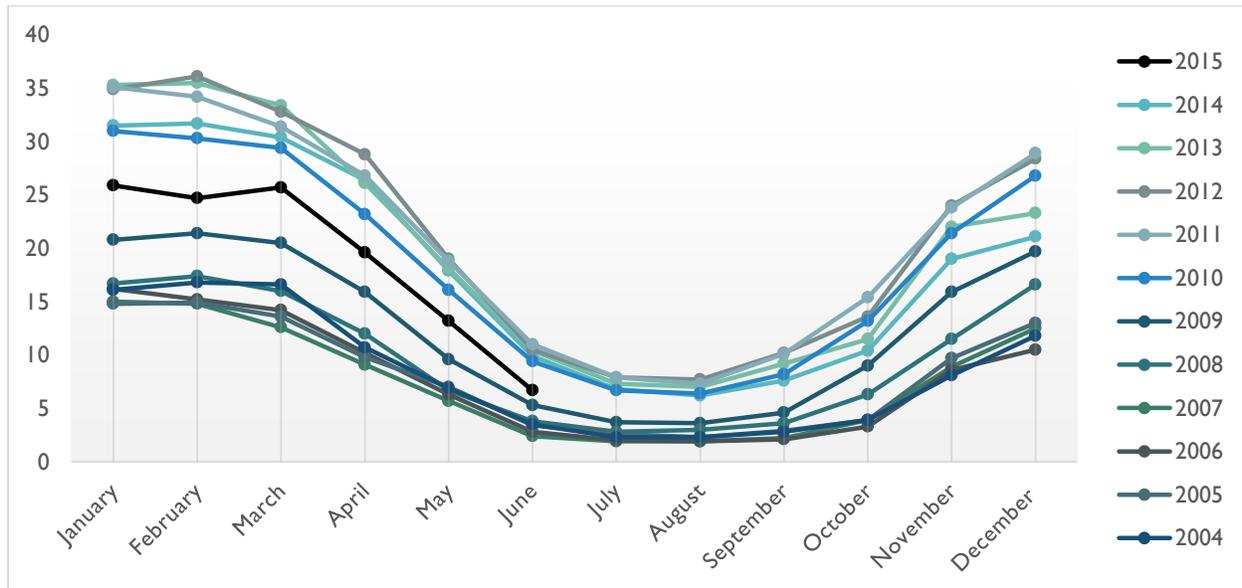
Circumstances unique to the island also make it difficult to take an accurate count of the number of employed persons in any given year, including many year-round residents who hold multiple jobs during the tourism season, and island residents who leave during the winter to take seasonal employment elsewhere.

<i>Table 11-1 New Shoreham Employment</i>				
<i>Category</i>	<i>Years</i>			
	<i>2006</i>	<i>2009</i>	<i>2012</i>	<i>2014</i>
Total Private Employment	744	732	788	830
Total Private and Government	867	859	909	952
Accommodation & Food Services	356	352	409	452
Government	123	127	121	122
Retail Trade	102	103	94	98
Construction	92	75	56	59
Real Estate & Rentals & Leasing	36	44	54	50
Arts, Entertainment & Recreation	31	31	*	33
Administrative Support & Waste Management	30	29	37	34
Other Services	21	18	23	22
Professional & Technical Services	9	15	18	16
Health Care & Social Assistance	*	*	13	11
Manufacturing	12	12	11	9
Transportation & Warehousing	11	11	10	11
Information	9	*		
Management	*	*		
Agriculture and Fishing	*	*	*	
Utilities	*	*	*	
Wholesale Trade	*	*	*	
<i>Source: RI Department of Labor and Training</i>				
<i>*Data collected for other categories but not shown due to the possibility of identifying the data of a specific employer</i>				

## Unemployment

New Shoreham's high unemployment rate is a function of the seasonal nature of work on the island. As *Table 11-2 New Shoreham Unemployment Rate* illustrates, there is a clear need for more year-round employment opportunities on Block Island.

**Figure 11-2 New Shoreham Unemployment Rate**



## Poverty

According to American Community Survey (2006-2010) estimates, there were 102 persons living below the poverty level on the island. This is a rate of 9.7% (based on total population of 1,051 from the 2010 Census). While this is lower than the state average of 11.6%, it is higher than many comparable Rhode Island communities.

## An Older Population

Block Island's demographic trends must be considered as part of long range planning to maintain and strengthen its economy. As described in the Land Use chapter, the island has a growing number of retired residents. According to the 2010 Census, 21.3% of the year-round population is 65 years of age or older. This is an increase over the 2000 Census figures, which indicated that 17.3% were 65 years of age or older. This segment of the population has needs and desires for specific services to permit and encourage them to reside on island.

Another demographic trend is a drop in the population of school aged children, as evidenced by decreased enrollment at the Block Island School (see Community Services and Facilities chapter). While the school has gone through fluctuations in enrollment and class size throughout its history, this ongoing trend reflects the difficulty of young families in finding both suitable long term employment and permanent affordable housing on the island. The school system itself is a major employer and the center of many community activities. On

any given year it employs about 45 people, although some of these are part-time positions, and makes up about 37% of the total annual town budget. Most importantly, a vibrant year-round community needs all age groups, including school-aged children in numbers that can sustain a viable school system.

## Existing Economic Activities

*The following industry sectors represent significant employers, large revenue generators and substantially contribute to the local tax base:*

### TOURISM

There is little of the island economy that is not directly or indirectly reliant on tourism activity for its financial base. Seasonal economic activity includes businesses in the hospitality industry – hotels, inns, restaurants, and bars. It also includes a range of retail; bicycle, moped and sports equipment rentals; real estate, property rental and maintenance services; landscaping; wedding and catering services; spas; taxi and guide services; and fishing charters. There are also the businesses related to transportation to and from the island; the ferry and airline services, which have intensified schedules during the tourism season.

Activity is concentrated during the three summer months, although the season is considered to run from before Memorial Day through Columbus Day, encompassing many weeks of “shoulder” season. During the peak tourism season, 20,000 people a day can arrive by ferry, airplane, or personal watercraft, and more than 10,000 visitors stay overnight in rental housing, inns and on boats.

While seeking economic diversification, it is still necessary to support and enhance tourism. This includes meeting visitors’ expectations for quality and comfort, one example being the installation of air conditioning in hotels and inns, often requested by guests but largely absent due to the high electricity costs on the island, another, the provision of clean public restroom at the town’s main tourist attractions, most importantly beaches and New Harbor. It also includes attracting tourists with more activities and experiences that occur in the off-season. An extended tourist season, while not drawing the large numbers of visitors that arrive in the summer, can strengthen the island economy as well as sustain social opportunities and services at times when they may otherwise not be available. Marketing efforts should also continue to target “shoulder” season offerings as some would argue Block Island is near carrying capacity during summer months. The town must first work to reduce the costs of electricity in order to facilitate any significant expansion of the tourism season.

Recent efforts to improve open space and amenities within the Old Harbor Historic District by the Old Harbor Task Force should be expanded. Most visitors arrive in Old Harbor and first impressions are important. Wayfinding signage and other amenities such as benches, bicycle racks, and refuse and recycling containers should be attractive and in keeping with the character of Block Island. A downtown merchants’ association could also assist in maintaining an attractive and cohesive built environment within the Old Harbor Historic District.

Block Island’s tourism economy is based on its exceptional natural resources – its beaches, bluffs, Great Salt Pond and other coastal water bodies, forests and fields, freshwater ponds, habitat areas and hiking trails. It is also based on its cultural heritage and landscapes – its distinct countryside, harbors and quaint historic village.

Many desirable tourism activities such as birding and hiking depend on the protection and stewardship of these outdoor resources. This includes maintaining trails, protecting habitats, controlling invasive species, and aggressively working to control the incidence of Lyme disease. It is critical that the island protect its natural environment and authentic landscapes (see Natural and Cultural Resources chapter) and that the tourism activities that make use of, or rely on, these island resources do so in an environmentally sensitive and sustainable manner.

### A top priority of the town is to ensure that tourism and tourism-related activities do not compromise the island's character or natural and cultural resources.

Indicators on the financial health of the tourism industry on Block Island tend to follow a pattern consistent with regional and State tourism figures including a dip during the recent recession and a subsequent rebound. Recent years have seen the addition of airline service from T.F. Green to Block Island. Now, more than 10 million people live within two hours of a ferry or airline with service to Block Island. With expanded transportation options, the island's growing popularity as a wedding destination, and increased marketing efforts in the shoulder season, it is not unrealistic to expect an increase in the number of visitors and tourism dollars in future years. The town must ensure that any increase in the number of visitors or tourism activities on the island do not exceed the island's carrying capacity and negatively impact the town's natural resources or its residents' ability to enjoy them.

### CONSTRUCTION TRADES & REAL ESTATE

The construction trades, which represent a principal year-round activity, are supported by a strong second and vacation home market. The vacation home market results in a demand for both construction and real estate services on the island along with other associated industries. Jobs in these areas key closely to the overall economy; they are at a high level when the economy is growing, but are lower when the economy is stable or declining. The construction trade, in particular, is dependent on an increased rather than level demand for new houses or reconstruction of existing housing stock. The degree of construction activity, particularly as it relates to new house construction, often results in a conflict between this crucial part of the local economy and the broader goal of limiting growth to protect the natural and cultural resources of Block Island.

### MARINE

There are three large marinas and several smaller marinas located on Block Island that collect fees for dockings and moorings and a variety of other local businesses which support the boating community. See *Chapter 3. The Great Salt Pond* for additional discussion on the local and regional economic impact of New Harbor and its businesses.

## Diversification and Achieving a Year-Round Economy

In order to diversify the economic base, business activities in addition to those related to tourism and tourism-based construction and real estate must be promoted on the island. The Town should proactively seek out new and diversified economic development activities as a means to improve the local business climate and quality of life on the island. Ideally, new industries and businesses should:

- ✓ BE SMALL IN SCALE AND RESIDENT-OWNED
- ✓ MINIMIZE NEGATIVE ENVIRONMENTAL IMPACTS WHILE CONSERVING ENERGY AND NATURAL RESOURCES
- ✓ SERVE RESIDENTS' NEEDS FOR PRODUCTS OR SERVICES
- ✓ SELL GOODS OR PRODUCTS GROWN, CRAFTED, OR MANUFACTURED ON THE ISLAND

Many businesses and economic activities are consistent with the goals of this chapter, such as agriculture and aquaculture; a range of arts and crafts production; education and medicine; and any number of “geography-free” businesses. These businesses and others with limited impact on our scenic and natural resources should be supported and pursued.

### Light Assembly

Recognizing the need to achieve a year-round economy and to address an outright prohibition on manufacturing use, in 2009, the Town adopted light assembly zoning regulations. These regulations specifically allow, and provide standards for, light assembly or manufacturing business operations in all commercial districts with the granting of a special use permit. As defined in the ordinance, the business must employ at least two full-time year-round employees and have a dedicated work space of at least one thousand square feet. Examples of appropriate businesses include but are not limited to: wood products such as signs and furniture, paper products, such as printing and book binding, and textile, such as processing fibers into yarn and weaving. Since 2009, the Town has only seen the addition of one business as a result of this zoning amendment. There are likely other barriers beyond permitted uses, such as lack of available commercial land and affordable housing, impacting the growth of this industry.

### Agriculture & Aquaculture

By the late eightieth century, most of the trees on Block Island were felled for fuel and construction material and also to establish farmlands. After the mid-nineteenth century, tourism superseded farming as the island’s economic base and gradually scrub vegetation filled many of the former farmlands.

Today, Block Island has a small number of active agricultural operations (See Map ED I Agriculture) and is host to a farmers market held twice weekly during the growing season. With the high cost of land on Block Island, the establishment of new large scale farming operations seems unlikely. However, agriculture is changing and opportunities do exist within the local economy of Block Island to promote the expansion of agriculture. In many existing farming communities, accessory uses to support agriculture are a growing portion of revenues for farmers and are often necessary to maintain working farms. This growing industry of agritourism and value-added agricultural products could prove successful on Block Island with its large number of visitors seeking activities and locally-made products. On Block Island, agriculture could also be more readily utilized as an accessory use to other businesses (ie farm-to-table restaurants, animal farm at

inns). Several restaurants currently utilize large gardens to supply their kitchens with fresh produce and to market their establishments as “farm-to-table.”

Another industry established on Block Island is aquaculture. Aquaculture, also known as aquafarming, involves cultivating freshwater and saltwater populations under controlled conditions. Commercial aquaculture businesses currently operate within the salt-water ponds linked with the Great Salt Pond. The town supports sustainable aquaculture operations that do not have a negative impact on surrounding water quality, ecological communities, or recreation.

## IMPROVING THE LOCAL BUSINESS CLIMATE

### Local Economic Challenges

*In addition to the challenges listed above in relation to demographics, other factors unique to the island create barriers to business activity that the community must address in order to increase economic development opportunities.*

#### *Lack of Available Land and Commercial Space*

Opportunities for new businesses are limited by the high cost and small inventory of commercially zoned land or business properties. There is limited turnover of existing businesses and a very limited amount of undeveloped land zoned commercial where a business could build to suit. Further, existing businesses in the construction trades struggle to find permissible locations to store equipment. The town should conduct a review of the current zoning ordinance and map to identify potentially suitable additional areas where commercial uses would be appropriate.

Another strategy to address this challenge and to facilitate the development of new businesses is providing incubator space for start-up businesses on Block Island. Public-private partnerships, local tax incentives and grant opportunities should be explored to make this initiative viable and successful.

#### *Cost of Living and Doing Business on an Island*

While New Shoreham has consistently had the lowest property tax rates in Rhode Island, there are also many added expenses relating to life on an island that impact both residents and business owners. A fundamental aspect of living and working on an island is the added transportation related costs as all goods, supplies, materials and equipment must be transported by ferry or plane.

Historically and currently heating oil and electricity costs are high on Block Island. Large utility bills can make operating a business during non-peak months not viable. As stated in the island’s 2012 Energy Plan, *“Electricity prices on Block Island are among the highest in the country due to the small size of the system, reliance on diesel as a power source, transportation costs, seasonal demand swings and isolation from the grid.”*

## THE OFFSHORE WIND PROJECT, CONSTRUCTED IN 2016, IS EXPECTED TO PROVIDE PROPERTY OWNERS AND BUSINESSES ON THE ISLAND WITH A DECREASE IN FUTURE ELECTRICITY COSTS.

Lower utility costs would have considerable impact on the bottom line for local businesses and could encourage businesses to extend their operating season.

### *Housing Availability*

The availability of affordable and rental year-round housing is essential to maintaining and building a strong island economy. It is needed foremost for young people and families with moderate incomes, particularly for those who grew up on Block Island and want to make the island their home while they pursue careers and raise families. It is also needed for professionals with specific skill sets in demand, such as school teachers, who want to make the island their home.

Most of the housing inventory on Block Island (65%) is comprised of second and vacation homes, resulting in a housing market skewed to inflated prices. According to Housing Works RI's annual Housing Fact Book, in 2014 the median home price on Block Island was \$1,100,000, requiring an annual income of \$278,406 to purchase. A large majority of housing construction activity is related to vacation homes, as opposed to that for year-round housing, whose construction is typically a result of specific efforts by non-profits to create long term affordable units.

An additional challenge to operating a business on an island with high real estate values is the lack of housing for the seasonal workforce. Many businesses including inns, restaurants, and shops must provide housing as part of their employment package to secure seasonal workers. Seasonal workers not provided with housing often live in sub-standard conditions including overcrowding in order to afford housing during the peak summer season. Arguably, the provision of adequate and affordable rental housing for the seasonal workforce is one of the biggest challenges Block Island must address. See Housing Chapter for additional discussion.

### *Telecommunications*

Keeping the island digitally connected to the world at large is a critical economic issue. Residents seeking work off-island and non-residents providing skills to the island which may otherwise not be available, depend on both commuting and telecommuting. Reliable year-round transportation and access to high speed internet are both crucial. Many residents cannot work mainland jobs and many jobs on the island cannot be held by day commuters because of the limited winter ferry schedule.

The inconsistency of the internet connection, including frequent and sometimes lengthy outages, affects many residents who work, and also vacationers who want to stay connected to their off-island work life. It particularly affects those running a business on the island who rely on the internet for many aspects of their operation, including ordering supplies, marketing, making sales, taking reservations, etc. Tourism in general could be negatively impacted if Block Island becomes known for limited connectivity as increasingly people expect to stay connected while traveling.

## NEW SHOREHAM HAS SECURED A MAINLAND FIBER CONNECTION

Efforts to improve internet service on the island have been underway for several years, involving the Town and its Information Technology (IT) consultants, as well as the Block Island Residents Association and the Block Island Chamber of Commerce. The New Shoreham “Broadband Working Group”, established in 2014, identified options for improving internet reliability through better or alternative broadband access from the mainland. As part of the offshore wind farm project, a subsea power cable including fiber is connected to the mainland for wind farm management and the Town has secured the rights to eight strands of fiber. The Town is currently working with consultants on a universal Home to Network design, cost estimates, and an internet service provider.

Reliable high speed internet is critical to the school, the medical center, the police department and the economy as a whole. Economic activity through telecommunication is not only critical in today’s economy, but is of particular importance on Block Island with its combination of geographic isolation, high energy and transportation costs, and sensitive natural and cultural environment. Jobs provided or enhanced through telecommunication not only contribute to a year-round economy, but have little, if any, secondary negative impacts, such as large energy consumption and waste generation. For more information, review the New Shoreham Broadband Plan completed in January of 2015.

While there may not be broad economic development plans, policies, or tax incentives currently in place or offered through the Town, several major economic development initiatives including those listed above involve significant prior and future investments by the Town. For example, plans have been completed for the Broadband project with a major goal being the advancement of the local business climate on Block Island. The Town’s ongoing affordable housing efforts along with recent changes in policies including adding Light Assembly as a permitted use in all commercial zones are other examples of Town actions which advance economic development on the island.

## Goals, Policies & Implementation Actions

Achieving other goals and policies of the Comprehensive Plan, particularly those relating to land use, housing, natural and cultural resources, and recreation, are of vital importance in reaching the economic development goals identified in the following section, just as a healthy economy is necessary for those other goals and policies to be achieved.

### **GOAL EDI: PROVIDE A HEALTHY, BALANCED, YEAR-ROUND ECONOMY THAT IMPROVES THE QUALITY OF LIFE FOR ISLAND RESIDENTS AND EMPHAZIZES SUPPORT FOR LOCAL BUSINESSES AND WORKERS.**

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
EDI.A. Promote a diversified year-round economy	EDI.A.1. Create incentives to attract or develop island-grown businesses which provide locally needed products and services while also offering year-round job opportunities	Finance; Tax Assessor; Town Council	Medium-term
	EDI.A.2. Establish an incubator space for business start-ups; explore partnerships and grant opportunities to assist with funding construction and operations	Grant Writer; Town Manager; Town Council	Medium-term
	EDI.A.3. Work with partners to establish an outreach program for unemployed residents	Town Council	Long-term
	EDI.A.4. Work with partners to undertake surveys, market the island's businesses not directly related to tourism, and solicit specific recommendations for any necessary changes in town policies, regulations and taxation	Town Council	Ongoing
	EDI.A.5. Conduct a review of the current zoning ordinance and map to identify potentially suitable additional areas where commercial uses would be appropriate	Planning Board	Short-term
EDI.B. Foster collaboration between business and the local education system	EDI.B.1. Identify and offer quality real-world training opportunities and programs to students	School Department	Ongoing
EDI.C. Support existing local businesses and their needs for public infrastructure and services	EDI.C.1. Establish a working group consisting of residents, local business owners and municipal representatives to develop strategies to better support local businesses	Town Council	Medium-term

	EDI.C.2. Take measures to control the costs of freight and electricity	Town Manager; Town Council	Ongoing
EDI.D. Promote a vibrant, attractive and cohesive built environment and amenities within commercial districts	EDI.D.1. Foster the establishment of a downtown merchants association and other local business associations	Old Harbor Task Force; Town Council	Short-term
	EDI.D.2. Establish a program to ensure the installation of consistent amenities including but not limited to benches and bicycle racks	Planning Board; Historic District Commission; Old Harbor Task Force	Short-term
EDI.E. Cultivate a wide variety of small-scale economic activities that can be easily integrated into the community	EDI.E.1. Determine appropriate opportunities for low-impact, home-based businesses and amend zoning ordinance to allow with a special use permit	Planning Board; Building, Zoning, Land Use & Planning	Short-term
EDI.F. Promote agricultural operations as a viable economic enterprise, method to preserve open space, and source of local food	EDI.F.1. Amend zoning to encourage agritourism activities and the production of value-added agricultural products	Planning Board; Building, Zoning, Land Use & Planning	Short-term
	EDI.F.2. Continue to acquire or purchase development rights to farmlands with partners	Block Island Land Trust; Town Council	Ongoing
	EDI.F.3. Investigate options to offer no-cost or low-cost leasing options of conserved lands to farmers	Block Island Land Trust	Medium-term
EDI.G. Ensure commercial activities are in keeping with the character of the island	EDI.G.1. Never permit uses such as heavy manufacturing or commercial gambling that would destroy the character of the island	Town Council; Planning Board; Zoning Board	Ongoing
EDI.H. Promote and support sustainable fisheries and aquaculture	EDI.H.1. Permit in reasonable quantity ecologically sound aquaculture activities (See Chapter 2. The Great Salt Pond)	Harbors Commission; Harbors Department; Town Council	Ongoing
EDI.I. Provide affordable housing to support a year-round economy, and address the need for seasonal employee housing (See Housing Element)	EDI.I.1. Permit affordable year-round rental housing and homeownership opportunities throughout the island	Planning Board; Zoning Board; Block Island Housing Trust	Ongoing
	EDI.I.2. Identify potential locations for seasonal workforce housing	Block Island Housing Trust	Short-term
EDI.J. Ensure economic development occurs in a sustainable and integrated manner	EDI.J.1. Target economic development activities in areas where development and infrastructure exist	Planning Board	Ongoing

ED1.K. Improve access to sustainable broadband internet service for residents, businesses, government and visitors	ED1.K.1. Establish island-wide reliable high-speed internet connection	Information Technology; Broadband Working Group; Town Manager; Town Council	Short-term
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**GOAL ED2: ADVANCE THE ISLAND’S TOURISM INDUSTRY BY PROVIDING A QUALITY VISITOR EXPERIENCE AND PROTECTING THE NATURAL AND CULTURAL RESOURCES UPON WHICH TOURISM DEPENDS**

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
ED2.A. Encourage sustainable tourism and tourism activities that complement the island’s unique natural environment and cultural resources	ED2.A.1. Control access to the beaches in a way that protects dunes and bluffs from damage	Conservation Commission; Town Manager	Ongoing
	ED2.A.2. Identify and promote tourist activities for the “shoulder” and off seasons, specifically those which emphasize individual and quality experiences rather than those designed to attract large numbers of visitors	Block Island Tourism Council	Ongoing
	ED2.A.3. Consider establishing a sustainable tourism certificate program for island businesses	Block Island Tourism Council	Long-term
ED2.B. Make investments and manage resources for a high quality tourist experience	ED2.B.1. Provide improved access to beaches and trails, and increase availability of amenities such as bicycle racks, restrooms, benches, informational materials and signage	Conservation Commission; Planning Board; Town Council	Long-term
	ED2.B.2. Implement a consistent and distinctively Block Island wayfinding signage program to help visitors find local services, facilities, landmarks and attractions (T1.E.3.)	Tourism Council; Old Harbor Task Force; Historic District Commission; Planning Board	Medium-term
ED2.C. Protect cultural, historic, and scenic resources that are vital to the island’s economy	ED2.C.1. Identify and map significant viewsheds and enact land use regulations to provide protection	Building, Zoning, Land Use & Planning; GIS Department; Planning Board; Town Council	Medium-term

ED2.D. Seek coordination in tourism and marketing efforts among local organizations and state agencies	Schedule regular meetings with organizations and agencies involved in tourism to increase communication	Block Island Tourism Council; Town Council	Ongoing
	Work collaboratively with partners including the Block Island Tourism Council, the Block Island Chamber of Commerce, and Small Business Administration to leverage efforts	Block Island Tourism Council; Town Council	Ongoing

**Timeframes:** Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

# MAP ED 1

## Agriculture

### TOWN OF NEW SHOREHAM RHODE ISLAND

Comprehensive Plan, 2016



BLOCK ISLAND SOUND

RHODE ISLAND SOUND



##### Agricultural Soils

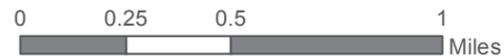
- Prime Farmland
- Statewide Important
- Conserved Farmlands
- Active Agricultural Operations
- Active Agricultural Operations on Conserved Lands

- Farmers Market
- Roads
- Water



**RIGIS**

7/21/2015; AR



This map is not the product of a Professional Land Survey. It was created by the Town of New Shoreham GIS Office for general reference, informational, planning or guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. The Town of New Shoreham makes no warranty, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.



## 8.

# TRANSPORTATION

New Shoreham 2016 Comprehensive Plan

### VISION

**Block Island will maintain a multi-modal transportation system that moves people and goods to, from, and around the island in a safe, economical, and reliable manner to support island livability and the local economy. Investments in transportation infrastructure will encourage a balance of transportation modes including pedestrian and bicycle and will minimize impacts on natural resources and the unique character of the island.**

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# TRANSPORTATION

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## SUPPORTING DOCUMENTS

Old Harbor Vision & Design Project, Dodson Associates, Ltd. Landscape Architects and Planners, October 2004.

Rhode Island Airport Land Use Compatibility Guidebook, Rhode Island Airport Corporation, April, 2013.

State of Rhode Island Airport Systems Plan, State Guide Plan Element 640, Statewide Planning Program, 2011.

State of Rhode Island Transportation Improvement Program, FY 2013-2016, Adopted July 12, 2012.

Transportation 2035, State Guide Plan Element 611, Statewide Planning Program, 2012.

## Overview

The following chapter provides a summary and assessment of transportation modes to, from and on Block Island. Policies have been established to address the challenges highlighted below and to achieve the stated goals of reducing reliance on the automobile and providing a sustainable transportation system which meets the diverse needs of residents, visitors and commerce.

### **ACCESS TO AND FROM THE ISLAND**

**MORE THAN ANY OTHER RHODE ISLAND COMMUNITY, BLOCK ISLAND RELIES ON THE SERVICES OF PRIVATE TRANSPORTATION COMPANIES TO PROVIDE CRITICAL TRANSPORTATION CONNECTIONS TO AND FROM THE ISLAND. THE COMMUNITY DESIRES AN INCREASED VOICE IN TRANSPORTATION ACCESS AND MANAGEMENT DECISIONS IN ORDER TO SECURE ITS FUTURE.**

### **TRANSPORTATION ON THE ISLAND**

**DURING THE PEAK TOURISM SEASON, ISSUES OF CONGESTION AND SAFETY ARISE ON BLOCK ISLAND BECAUSE OF THE LARGE INFLUX OF PEOPLE AND AUTOMOBILES. ACCOMMODATING MULTIPLE MODES OF TRANSPORTATION SAFELY AND EFFICIENTLY ON NARROW ROADS DURING THE BUSY SEASON IS A CHALLENGE. SHARING THE ROADS IS REQUIRED OF RESIDENTS AND VISITORS ALIKE IN ORDER TO ACHIEVE A SAFE AND EFFICIENT MULTI-MODAL TRANSPORTATION SYSTEM.**

## ACCESS TO AND FROM BLOCK ISLAND

*The Town's two harbors and airport serve as the island's main transportation hubs as air and water are the only means to and from the island.*

### Water

#### Ferry Services

The mainland connection by means of the ferry is indispensable to year-round life on the island. The large majority of visitors arrive by ferry and are critical to the island economy. Ferry access to and from Block Island during the summer tourism season is plentiful with a number of options for travelers (See Table TI: Block Island Ferry Service). However, Point Judith State Pier in Narragansett, RI is the only mainland port from which there is year-round ferry service to Block Island and the only service available for vehicle transport.

Interstate Navigation, the company operating the ferry service out of Point Judith, varies its passenger and vehicle service significantly throughout the year in response to demand. The number of daily trips decreases during the shoulder season, and even further during winter months. *On a mid-week winter day there may be only one boat to and from the island, a minimum requirement of the company's operating permit granted by the RI Public Utilities Commission.*

Mainland Destination	Block Island Destination	Operator	Schedule	Months	Vehicle Transport	Sailing Time
Point Judith, RI (Traditional)	Old Harbor	Interstate Navigation	Year-Round	Jan-Dec	Yes	55 min
Point Judith, RI (Hi-Speed)	Old Harbor	Interstate Navigation	Seasonal	June-Oct	No	30 min
Newport, RI	Old Harbor	Interstate Navigation	Seasonal	June-Sept	No	1 hour
Fall River, MA	Old Harbor	Interstate Navigation	Seasonal	June-Sept	No	2 hrs 15 min
New London, CT	Old Harbor	Nelseco Navigation	Seasonal	May-Sept	No	1hr 15 min
Montauk, NY	New Harbor	Viking Ferry Lines	Seasonal	May - Oct	No	1 hour

Interstate Navigation's traditional ferry transports goods, products, and materials, including food, fuel, and construction materials. The town's solid waste is also transported off-island by the ferry to Point Judith. In addition to the traditional ferry, Interstate Navigation provides a seasonal "hi-speed" ferry service to Block Island from Point Judith, Newport and Fall River, Massachusetts.

Two other companies provide seasonal passenger only ferry service. The Block Island Express operates between New London, Connecticut and Old Harbor, and the Viking Fleet operates between Montauk, New York and New Harbor. These ferries provide a much needed service in response to considerable demand from vacationers in Connecticut, New York and further south.

The Town needs to have a stronger voice in capacity, scheduling, fare structures, freight tariffs and other aspects of access management regarding the ferry transportation system. Recent years have seen large increases in freight tariffs including an approximate 20% increase in 2015.

The provision of affordable mainland parking is essential to successful ferry operations and the goals of the Town. The Town supports efforts to limit the number of personal vehicles transported to the island in the summer months. Reduced auto fares and high parking fees have the opposite effect.

In Point Judith, there is seasonal parking for a modest annual fee on a State owned and managed lot. This lot is relied on by Block Island residents for long-term parking of a mainland vehicle, and use for overnight parking for those who travel frequently to the island. A task force that deals with mainland parking issues should be established by the Town Council. Such a task force could focus on the need to maintain affordable mainland parking fees for island residents and property owners. The task force could also advocate for improved parking facilities and amenities.

## Harbors

### ***Personal Watercraft***

For those traveling by private boat to the island, there are two harbors, Old Harbor and New Harbor / Great Salt Pond. Old Harbor accommodates ferry docks, a private marina, and limited dockage, mooring and anchorage for personal watercraft at town-owned docks and anchoring field. The large majority of private vessels arriving to Block Island anchor in the Great Salt Pond or dock at one of the private marinas in New Harbor. As of 2015, the Great Salt Pond can support up to approximately 2,000 recreational boats, which includes both dockage and mooring space. See the Great Salt Pond Chapter and the New Shoreham Harbor Management Plan for additional discussion related to the town's harbors.

## AIR

### ***Block Island Airport***

Located in the center of the island, The Block Island Airport provides essential commercial, emergency, and general aviation air access on its 2,501 foot long runway. Expanded and remodeled in 2009, the Block Island Airport includes a passenger terminal and lounge, a restaurant, car rental service, and ample parking. There is no public transportation option to and from the Block Island Airport. Ground transportation is provided by taxi service. Block Island Airport is owned by the Rhode Island Department of Transportation (RIDOT) and managed by the Rhode Island Airport Corporation (RIAC).

Currently, there is only one commercial airline providing scheduled air transport service to and from the island. New England Airlines operates a scheduled year-round service to and from Westerly Airport with a flight time of less than 15 minutes. It also offers charter service to and from Block Island to Westerly and other airports in the region, including T.F. Green.

As with other economic activity, airline operations at the Block Island Airport are seasonal in nature. During the peak tourism season, the scheduled flights occur at least once every hour, and during the remainder of the year about every other hour.

The island airport is also actively used by other charter services as well as private aircraft, including a small number owned by island residents. Over a ten year period from 2000-2009 there were anywhere from three to twelve aircraft based at the Block Island Airport (RI State Airport Systems Plan).

*Scheduled commercial air service plays a vital role for Block Island in that it is the fastest means of access and the only means of access to and from the Island when the ferry service cannot operate, such as during high seas conditions.*

Because of the speed of air transportation, the immediacy of its access, and its ability to operate in inclement weather conditions to the degree that its current approaches permit, Block Island Airport serves as the island's lifeline to the mainland for the emergency evacuation of life-threatened patients. New England Airlines has provided emergency air transport services, and has been critical in transporting residents and visitors to the mainland in response to any number of life-threatening and other emergency circumstances. Currently, critical emergency services are provided by medevac companies using fully equipped and staffed medevac helicopters.

Commercial airlines also fill a variety of important roles for island residents including carrying large volumes of freight year-round, such as the shipping of time sensitive items like prescription medications, critical parts repair and machinery maintenance equipment.

Block Island Airport is an economic generator for the island in that it provides aviation-related industries and jobs. Additionally, it provides convenient access to the island for skilled workers and professionals, seasonal residents and visitors. All who spend money on goods, services, and accommodations, generating additional jobs and huge economic impact. In order to remain competitive and continue to contribute to the local economy, the private management company for Block Island Airport should not charge fees above other similar airports in the region.

A goal of the RI Airport System Plan is for all the airports in the state system to exist compatibly within their community. Municipalities are responsible for implementing proper land use regulations in the vicinity of the airport in order to prevent the development or expansion of incompatible land uses and ensure that development that does occur is related to or compatible with airport operations. Therefore, the Town will adopt an airport hazard overlay zone to meet the requirements of the State, protect the operations of the Block Island Airport and the health and safety of the community.

## NEED FOR STRONGER LOCAL CONTROL IN TRANSPORTATION ACCESS DECISIONS

The Block Island community needs a more effective voice in the management of the ferry and aviation services connecting it to the mainland, as well as the recreational boating capacity of the Great Salt Pond. Aside from direct discussions, or involvement in hearings, with the Rhode Island Public Utilities Commission, the Rhode Island Airport Corporation and the Coastal Resources Management Council, the Town currently does not benefit from any official representation on governing bodies making transportation access decisions. As such, the Town would like to explore with the State the establishment of a Port Authority consisting of island representatives appointed by the Town Council.

A local transportation commission could provide a unified voice for the island in crucial sea, air, and related land access management decisions, such as, but not limited to, ferry scheduling and fare structures, freight costs, airport fees, expansions or limits on mooring fields and moped licenses issued. The local transportation commission could also assist the Town in advocating for fair representation and the establishment of a Port Authority. The establishment of such a commission would require a change in the town charter.

*Transportation decisions affecting travel to the island must not be guided solely by demand, but rather by the capacity of the island to accommodate the demand, and to ensure that what makes the island a special place to visit is not compromised.*

## TRANSPORTATION ON THE ISLAND

### ROADWAYS

#### **Private Vehicles**

The on-island vehicle transportation system consists of an approximately 40 mile network of roads. Many of the roads on the island are private and are maintained to minimum standards having unpaved surfaces and narrow widths. A majority of the public roads on the island are State owned and are maintained by the Town with State funding. Under town jurisdiction is approximately four miles of paved roads and six miles of unpaved roads.

Map T1 Transportation System displays the island's roads as classified by the Highway Functional Classification System, recently updated by the State in 2014.

- PRINCIPAL ARTERIAL - A ROADWAY CARRYING THE MAJOR PORTION OF LONGER DISTANCE TRIPS THROUGH AN AREA, GENERALLY SERVING THE MAJOR MOVEMENT OF TRAFFIC NOT SERVED BY FREEWAYS
- MINOR ARTERIAL - A ROADWAY WHICH FORMS THE NETWORK OF CROSS-TRAVEL WITHIN A COMMUNITY, GENERALLY SERVING SHORTER LENGTH TRIPS AND PARALLEL TO A PRINCIPAL ARTERIAL

- COLLECTOR - AN AUXILIARY OR THROUGH ROADWAY WHICH SERVES TO COLLECT AND DISTRIBUTE TRAFFIC BETWEEN ARTERIALS AND LOCAL ROADWAYS
- LOCAL - A ROADWAY WHICH SERVES ONLY TO PROVIDE ACCESS TO ABUTTING PROPERTIES

During the summer season, the road system is host to a variety of vehicles, including cars, trucks and commercial vehicles, taxis, motorcycles, mopeds, bicycles, and pedestrians. Visitors can be distracted, unfamiliar with the geography, and lacking experience on mopeds and bicycles, creating safety issues on the island's roadways. As a safety measure, most unpaved roads are off limits for moped use.

Improving safety and reducing congestion of vehicles, taxis, mopeds, bicyclists and pedestrians is a major priority to the Town. The roadway and sidewalk system in and between the two harbors is subject to intense use during the tourism season, particularly in Old Harbor in conjunction with the arrival and departure of the ferries.

Old Harbor Vision and Design Project, completed in 2004, evaluated the circulation and land use issues of Old Harbor. The result was a master plan that addressed circulation, parking, public parks and infill development. The study included recommendations specifically related to easing congestion and reducing potential conflict between vehicles and pedestrians. Although the plan was never accepted by the Town, specific recommendations could be reevaluated and implemented including creating new pedestrian connections within the village and improving signage for public parking areas.

## ALTERNATIVE MODES OF TRANSPORTATION

Although a substantial number of seasonal workers depend on walking, bicycling, or taxi as means of transportation, there is significant potential for increased use of bicycling and walking as modes of transportation for island residents. *Due to the large margin of error for Block Island of the following American Community Survey data points: (i) The percentage of the population that lives in a household without a private vehicle, (ii) The percentage of the working population that uses public transit for commuting purposes; and (iii) The percentage of the working population that bike or walk for commuting purposes, the Town has determined the data is too unreliable to determine needs opted to not include in this Plan.*

Congestion in the Downtown and surrounding area along with roadways with little to no shoulder make bicycling and walking less desirable and create a perception of being unsafe. Continued enforcement of the 25 miles per hour speed limit will help to lessen the dangers and increase comfort of pedestrians and bicyclists. Improved on and off road pedestrian and bicycle linkages between Old Harbor and New Harbor would be beneficial and have been investigated, along with a seasonal transit option. Infrastructure improvements to better accommodate bicyclists and pedestrians on the town's narrow roads could prove infeasible in many cases. Therefore, a combination of infrastructure investments along with public awareness and safety campaigns could be used to improve overall island safety and conditions for bicyclists and pedestrians. One such project, currently included on the State TIP, is "share the road" signage for Corn Neck Road.

## PEDESTRIAN

### *Sidewalks & Trails*

Due to the congestion in and around the village in the summer, sidewalks are essential for the safe movement of pedestrians. Pedestrians are served by a mostly complete sidewalk system in the village area, with an extension along Spring Street up to the Spring House Hotel, up High Street to the Block Island School and Medical Center, and along Ocean Avenue to New Harbor. All of the sidewalk extensions are on one side of the respective street only. There are a number of street segments without sidewalks that do have heavy pedestrian use, including:

- WELDON'S WAY
- CHAPEL STREET (WESTERLY SIDE)
- OLD TOWN ROAD (FROM BRIDGE GATE SQUARE TO TOWN HALL)
- CORN NECK ROAD (TO INTERSECTION WITH BEACH AVENUE/TOWN BEACH)
- WEST SIDE ROAD (OCEAN AVENUE TO CHAMPLIN'S) – CURRENTLY LISTED IN THE STATE TIP

Sidewalks should be constructed along the state-owned roads in the village area where they are lacking. Town-owned roads with potential pedestrian traffic or unsafe walking conditions should be targeted for improvements as well. Block Island's sidewalk expansion can be accomplished through inclusion of projects on the State Transportation Improvement Program.

The island-wide trail system consisting of over 25 miles of specifically designated walking paths should also be considered part of the transportation network. The Greenway, illustrated on Map T1 Transportation Network, is a continuous trail system between the Great Salt Pond at Ball O'Brien Park and the ocean at Black Rock Road which accesses Rodman's Hollow Preserve. There are a variety of other trails, including Clay Head Trail off Corn Neck Road in the northern part of the island, trails around Fresh Pond and through Rodman's Hollow, and alongside Dickens Farm in the southwest that provide access to parts of the island only available to those on foot. See the Recreation Chapter for additional discussion on trails.

## BICYCLE

### *Sharing the Roadways*

Bicycling is a very popular mode of traveling around the island in the summer. Most bicycling is recreational, however, it is also often the principal means of transportation for seasonal workers. Currently, there are no designated bicycle lanes or bicycle paths on the island and sharing the island's narrow roads with vehicles can at times be hazardous. Previous planning efforts have been undertaken to explore the potential of a dedicated bikeway system, including a feasibility study of a bicycle facility on Corn Neck Road in 2007. The Corn Neck Road project as shown in preliminary design plans would consist of three foot wide paved shoulders on each side of the road between Bridge Gate Square and the intersection with Scotch Beach Road, to be shared by bicyclists and pedestrians with appropriate pavement markings. The project would require some widening within the right-of-way to provide the uniform three foot shoulder width.

The Town should identify and prioritize improvements to enhance bicycle use and safety, including selective road widening to allow the road to be shared by both motorists and bicyclists. However, additional

measures can be accomplished in the short-term to enhance the safety and ease of movement for those without a car including a wayfinding signage program and the installation of additional benches and bicycle racks.

### TRANSIT

The island is not served by the Rhode Island Public Transit Authority or any other public transit system. The island also does not have rail infrastructure or service. As recommended in the Island Energy Plan as a means of reducing emissions, the Town should consider the establishment of a shuttle van or jitney that would provide a needed connection between the two harbors and Town Beach. A service to the airport should also be explored. This would provide a transportation alternative to help reduce congestion in the Downtown and surrounding area. In the shoulder and winter seasons, the jitney could also serve as a form of public transit for seniors and disabled. *Public-private partnership opportunities with taxi operators on the island should be explored.*

## Goals, Policies & Implementation Actions

### GOAL T1: PROVIDE A SUSTAINABLE TRANSPORTATION SYSTEM THAT MEETS THAT DIVERSE NEEDS OF RESIDENTS, VISITORS, AND COMMERCE

POLICY	ACTION	RESPONSIBLE PARTY	TIMEFRAME
T1.A. Preserve air and water transportation connections to the mainland and support providers of year-round transportation service	T1.A.1. Adopt an airport hazard overlay zoning district to ensure land use compatibility in the vicinity of the state airport (per the requirements of RIGL 1-3-5 Airport Zoning Act)	Planning Board; Town Council	Short-term
	T1.A.2. Continue to undertake maintenance activities necessary to preserve safe and adequate docks	Town Manager; Harbormaster; Town Council	Ongoing
	T1.A.3. Establish a local Transportation Commission or other similar body that can advocate the town's interests in access management decisions and the provision of mainland parking	Town Council	Short-term
	T1.A.4. Discuss with state leaders the need for island representation on governing bodies making access management decisions relating to Block Island	Town Council; Town Manager	Short-term
	T1.A.5. Advocate for the establishment of a Port Authority with island representatives having an official seat at the table	Town Council; Town Manager	Short-term
T1.B. Manage access to the island to protect quality of life and natural resources	T1.B.1. Work with the Public Utilities Commission to establish daily ferry passenger and vehicle capacities	Town Manager; Town Council	Medium-term
	T1.B.2. Work with the Army Corps of Engineers and CRMC to maintain mooring limit capacity in the Great Salt Pond	Town Manager; Harbormaster; Town Council	Short-term

T1.C. Reduce vehicle congestion and address parking needs in the Downtown and surrounding areas	T1.C.1. Review and revise zoning as needed to reduce amount of required on-site parking and allow for off-site parking, shared parking, and contribution to public parking or a combination of these measures	Building, Zoning, Land Use & Planning; Planning Board; Zoning Board; Town Council	Medium-term
	T1.C.2. Establish and maintain limits on rental vehicles including mopeds	Town Council; Police Department	Medium-term
	T1.C.3. Develop a parking plan for the downtown and surrounding area	Planning Board; Building, Zoning, Land Use & Planning	Medium-term
	T1.C.4. Establish a Parking Task Force to address on island parking needs	Town Council	Short-term
T1.D. Ensure parking is provided in a manner which preserves walkability and enhances the pedestrian experience of historic Downtown	T1.D.1. Provide a public system of satellite parking areas within walking distance Downtown and the harbors	Planning Board; Building, Zoning, Land Use & Planning; Town Manager; Town Council	Long-term
	T1.D.2. Explore establishing a fee-in-lieu system to support the development and maintenance of satellite parking areas as an alternative to requiring on-site parking Downtown	Planning Board; Building, Zoning, Land Use & Planning; Town Manager; Town Council	Long-term
T1.E. Improve the Efficiency and Safety of Island Roadways	T1.E.1. Work with RIDOT to implement bicycle and pedestrian safety projects on the island	Police Department; Building, Zoning, Land Use & Planning; Town Manager; Public Works	Ongoing
	T1.E.2. Conduct regular road and sidewalk condition surveys as a means to better prioritize infrastructure investments	Public Works; GIS Department; Town Manager	Medium-term; Ongoing
	T1.E.3. Implement a consistent and distinctively Block Island wayfinding signage program to help visitors find local services, facilities, landmarks and attractions (ED2.B.2.)	Tourism Council; Old Harbor Task Force; Historic District Commission; Planning Board	Medium-term

	TI.E.4. Conduct a public awareness and safety campaigns in regards to sharing the roads with cyclists and pedestrians and encouraging helmet use	Police Department	Short-term
TI.F. Support an interconnected local street system that allows for efficient movement of vehicles, bicycles, and pedestrians by encouraging street connectivity			Ongoing
TI.G. Work with RIDOT to ensure that any transportation improvements and amenities including signage and guardrails are of appropriate scale, material and design and do not have a negative impact on the scenic qualities of the island			Ongoing
TI.H. Consider natural hazards including flooding and sea-level rise when making transportation investment decisions	TI.H.1. Evaluate each road currently or potentially impacted by sea-level rise or flooding to determine appropriate actions to limit impacts to the community	Building, Zoning, Land Use & Planning; Emergency Management Task Force; Planning Board; Town Manager; Town Council	Long-term
	TI.H.2. Conduct a planning study of Corn Neck Road to identify alternatives to mitigate future impacts from storms and climate change	Planning Board; Building, Zoning, Land Use & Planning; Emergency Management Task Force; Town Manager; Town Council	Short-term

## GOAL T2: REDUCE RELIANCE ON PRIVATE AUTOMOBILE FOR ON-ISLAND TRANSPORTATION

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
T2.A. Respect and support bicycling and walking as modes of transportation rather than merely recreation for visitors	T2.A.1. Review local subdivision and zoning regulations, and amend as necessary, to ensure roadways and amenities are designed for all users	Building, Zoning, Land Use & Planning; Planning Board	Short-term
	T2.A.2. Work with partners to install additional sidewalks and bicycle racks in and around Downtown	Old Harbor Task Force; Tourism Council; Planning Board; Town Council	Ongoing
	T2.A.3. Require installation of benches and bicycle racks when reviewing substantial development projects	Planning Board	Ongoing
	T2.A.4. Undertake a comprehensive bicycle and pedestrian plan to address user safety and overall mobility	Building, Zoning, Land Use & Planning; Planning Board; Town Manager	Medium-term
	T2.A.5. Submit bicycle and sidewalk projects for inclusion in the State's Transportation Improvement Program and local Capital Improvement Program	Building, Zoning, Land Use & Planning; Planning Board; Town Manager Town Council	Ongoing
T2.B. Support the development and maintenance of bicycle and pedestrian paths	T2.B.1. Work with RIDOT to design bicycle and pedestrian paths that are congruent with the island's rural character	Building, Zoning, Land Use & Planning; Planning Board; Town Council	Ongoing
	T2.B.2. Ensure walking trails including the Greenway and public right-of-ways to the shore remain passable and have appropriate signage	Conservation Commission; Land Trust; Town Manager	Ongoing
T2.C. Provide increased transportation options for individuals, including seniors and the disabled, with unmet transportation needs	T2.C.1. Explore ways to provide transit options for the disabled and seniors	Town Council; Town Manager	Long-term

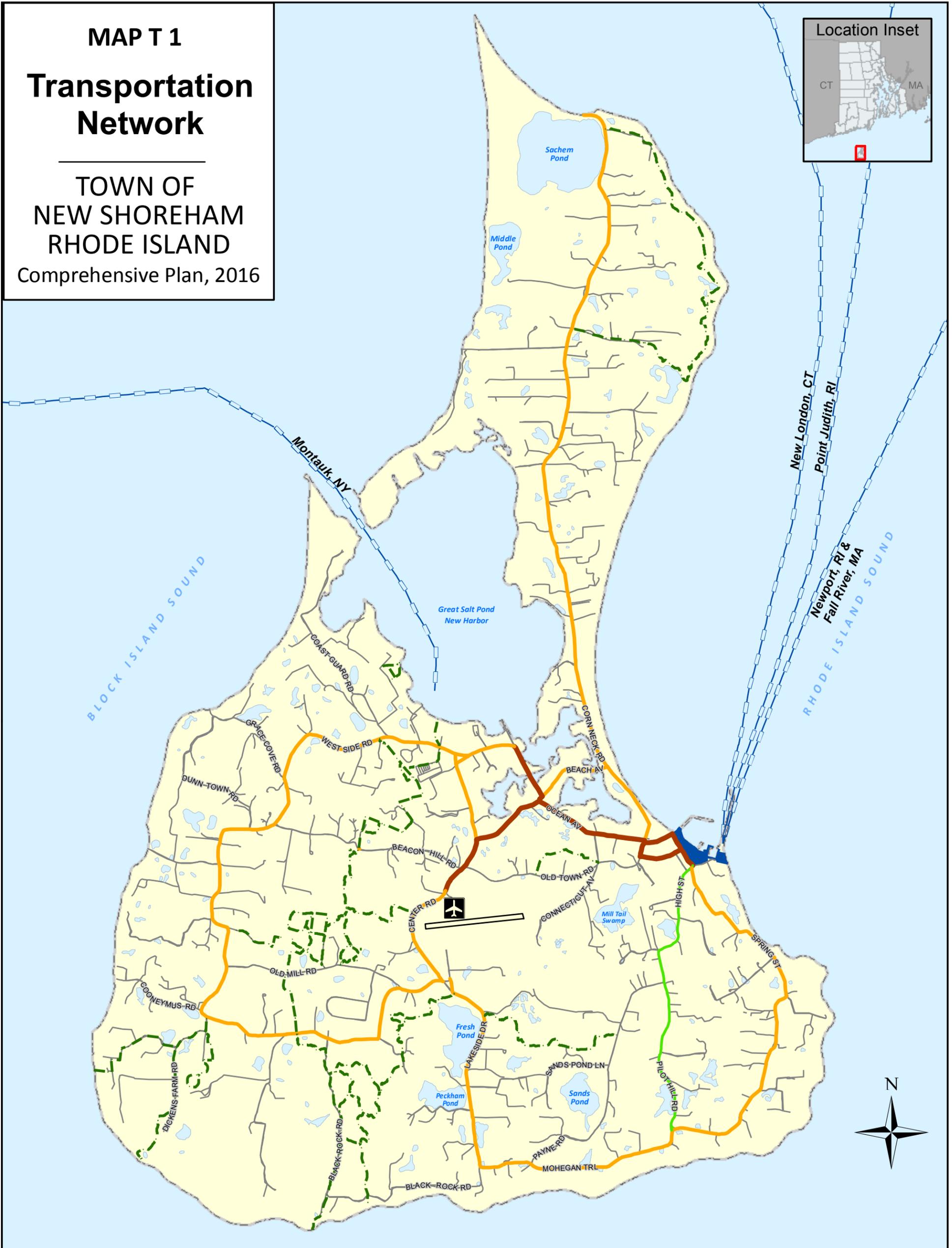
T2.D. Discourage travelling to the island with a vehicle	T2.D.1. Advocate for ferry pricing and management decisions that reduce incentives to travel to the island with a personal vehicle	Town Council; Town Manager	Ongoing
	T2.D.2. Advocate for improved mainland parking facilities with affordable rates	Town Council; Town Manager; Tourism Council	Ongoing
	T2.D.3. Work with the Rhode Island Department of Environmental Management and the Town of Narragansett to develop a long-term parking plan in Point Judith	Town Council; Town Manager; Building, Zoning, Land Use & Planning;	Long-term
T2.E. Make transportation investments that support the local tourism economy and better meet the needs of island visitors	T2.E.1. Provide access to public storage lockers and other amenities which improve the convenience and experience for daytrippers travelling to the island without a vehicle	Tourism Council; Old Harbor Task Force; Town Manager; Town Council;	Medium-term
	T2.E.2. Explore viability of a limited fixed route seasonal jitney bus service to provide access to main attractions for visitors addressing first a connection between Old and New Harbor	Tourism Council; Town Manager; Town Council	Medium-term

**Timeframes:** Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

# MAP T 1

## Transportation Network

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



### Legend

#### Major Roads

#### Functional Classification

- Minor Arterial
- Major Collector
- Minor Collector

- Airport & Runway
- Ferry Route
- Old Harbor / Port / Freight
- Greenway (walking trail)
- local & private roads



**RIGIS**

6/1/2016; AR



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## 9. SERVICES & FACILITIES

New Shoreham 2016 Comprehensive Plan

### VISION

**Block Island will continue to provide high quality community services and facilities that meet the needs of both residents and visitors. Community services and facilities will be provided in an environmentally and fiscally sustainable manner and will strive to preserve the unique qualities and character of Block Island.**

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# SERVICES & FACILITIES

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## SUPPORTING DOCUMENTS

*A companion document to this chapter, included in Appendix C is the Island Energy Plan which was adopted by the Town Council on June 4, 2012 and approved by the RI Department of Administration, Division of Planning on September 10, 2012. The energy plan addresses all sources of energy production, both conventional and renewable, waste reduction and conservation, and regulation and building design. It includes a set of goals and specific implementing actions for each subject.*

## OVERVIEW

The following section includes a description and assessment of the public services and facilities provided on the island, some of which are privately owned and/or managed, but most of which are a function of town government. *Map SFI Public Facilities* displays the locations of the public facilities on Block Island.

The provision of community services on an island is done under unique circumstances, is sometimes challenging, and is often costlier than it is for communities with similar characteristics on the mainland. In so many areas, the island must be self-sufficient. This is often due to the nature of the service being provided, but also because the opportunities for sharing services with other communities or any kind of regional approach are limited. All infrastructure systems, including public water and sewer, are localized. The school system educates all students, grades K through 12, and graduates on average fewer than ten pupils a year. Housing costs and the infeasibility of year-round commuting present a challenge to teachers and other professionals from the mainland who desire to work on the island, reducing the pool of applicants available for many community service jobs.

In other areas, services are provided but the mainland link is critical. Solid waste is collected and sorted on island, but is ultimately disposed of off-island. Medical services provided on Block Island are of a high caliber and available 24 hours; however, persons requiring emergency care and specialized services depend on access to the mainland. Similar to the recreation department programs, many social and recreational programs for seniors rely on mainland activities, especially during the winter.

The need for reliable high speed internet connection is discussed in the Economic Development chapter. In addition to its importance for businesses and the tourism industry, improved internet is critical to the school, as well as to the medical center, public safety departments, the library, and residents.

## Block Island School

The Block Island School, centrally located in the southeast area of the island, instructs children in grades kindergarten through twelve in a single building. It is staffed with a superintendent, two co-principals and twenty-five teachers, as well as administrative and teaching assistants, a guidance counselor, social worker, school psychologist and an athletic director.

## Enrollment

Over the decade from school year 2003-2004 to school year 2013-2014, enrollment at the Block Island School dropped by 25 students, from 140 to 115, an 18% reduction. There are three identified causes for this change:

1. A DROP IN THE NUMBER OF SCHOOL AGE CHILDREN THROUGHOUT THE REGION AS A PART OF A LARGER DEMOGRAPHIC TREND;
2. A LONG STANDING TREND THAT OCCURS IN THE TRANSITION TO HIGH SCHOOL AS SOME FAMILIES OPT FOR MAINLAND SCHOOLS; AND
3. A SMALL BUT EMERGING DROP IN THE KINDERGARTEN RATIO THAT HAS BEEN ATTRIBUTED TO THE DIFFICULTY OF YOUNG FAMILIES IN LOCATING ATTAINABLE YEAR-ROUND HOUSING.

As *Table SF-1 Block Island School Current Enrollment and Enrollment Projections* demonstrates, enrollment is anticipated to continue to decline over the next 10-year period.

The current school structure is separate grades (K-7) and a five-year (8-12) high school. This generates an expected and understood level of inefficiency with staffing and the facility. The facility has a capacity of 300 students with 15 students per classroom (highest single grade enrollment is currently 14 students). The 2013-2014 teacher to student ratio was 1:4, more than double the state average at 1:9.

In response to the challenges of operating a small and physically isolated school system with declining enrollment, the superintendent and staff, under the direction of the School Committee, researched potential changes to the school organization and structure in 2014. The concepts, which were field evaluated at other schools, include blended learning which is a combination of computer based and direct instruction; multi-grade classrooms; and of interest to the wider community, attracting students from off-island for specialized instruction, including for higher education.

## Education Costs

Per pupil expenditures continue to far exceed state averages, a trend that the recent enrollment drop has amplified. Total per pupil expenditures in the school year 2014-2015 were \$39,672 for the Block Island School versus \$16,075 statewide. In the FY 2014 town budget, the school represented 37% of spending, a figure which is fairly consistent year to year.

Table SF-1: Block Island School Current Enrollment and Enrollment Projections												
Grade	Capacity	2015-2016 Enrollment	Enrollment Projections									
		Students	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
K	15	9	8	5	13	7	8	8	8	9	8	8
1	15	8	8	7	4	11	6	7	7	7	8	7
2	15	6	7	9	7	4	11	6	7	7	7	8
3	15	5	6	6	7	6	4	10	6	6	6	6
4	15	6	5	6	6	7	6	4	10	6	6	6
5	15	10	6	5	6	6	7	6	4	10	6	6
6	15	9	10	6	5	6	6	7	6	4	10	6
7	15	12	9	10	6	5	6	6	7	6	4	10
8	15	12	14	10	12	7	6	7	7	8	7	5
9	15	14	12	14	10	12	7	6	7	7	8	7
10	15	6	14	12	14	10	12	7	6	7	7	8
11	15	7	6	14	12	14	10	12	7	6	7	7
12	15	9	7	6	15	13	15	10	13	7	6	7
Total	15	113	113	110	118	109	105	97	96	91	91	92

Source: RIDE for Current Enrollment; Town of New Shoreham / New England School Development Council, 10/2015 for projections

## Program

Block Island School students receive a very personalized education and a lot of individual attention from teachers. Students develop life-long relationships with their peers and the school faculty. The small classroom size also results in interaction between the different grade levels, both socially and more formally; in-school internships are offered to juniors and seniors to assist teachers of the lower grades.

Integrating computer based and teacher led instruction will be a major focus of public education on Block Island in the coming years. This will require that the technology infrastructure be upgraded, as instructionally, the school's greatest challenge is internet bandwidth. Overall, the internet is of growing importance for expanding secondary offerings through online courses; interactive online state assessments and the necessary preparatory instruction; and data management and integration which is increasingly cloud-based (data retrieved by the state, stored, and accessed through the internet).

Classroom reorganization to allow multi-grade instruction requires further program changes as well as physical space adaption. It is a longer term effort. Developing additional educational opportunities on Block Island will require the involvement of the island community – businesses, the environmental organizations, the arts community and other island groups. The school department undertook a survey to gauge community response to the idea in 2014, and initiated discussion with organizations that could offer educational programs in areas particularly suited to Block Island – the marine and ecological environment, arts, culture and history, and tourism. An initial step will be to develop short-term programs that are of interest to off-island students.

The possibility of establishing a pre-school has been discussed in the past, although no formal planning process has begun. The school department currently works with and supports the private preschool (the Block Island Early Learning Center). The Block Island School funds tuition cost of the private preschool for children (ages 3-5) with special needs.

A strong public school system educating grades K through 12 is critical to maintaining Block Island as a healthy and viable year-round community. Just as the community must make efforts in housing and economic development to provide opportunities for families to live and thrive year-round on the island, the school department must ensure the functioning and efficiency of the school through ongoing review of its enrollment and organizational structure.

## Facility

Renovations to the Block Island School were completed in 2006, resulting in a new full-sized gymnasium and excellent program space. In addition to attractive classrooms, the school has a large cafeteria, an art room, gymnasium, weight room, a music room, a library, wood-working and machine shops, computer rooms and resource rooms. The school fields a co-ed soccer team as well as girls' and boys' basketball, baseball and softball teams.

As of 2014, facility goals included restoring the façade of the original building and addressing various building and site maintenance issues, which are periodically identified and scheduled for correction or repair. A security review conducted during the 2012-13 school year identified a stronger entryway and new interior

door locks as priorities. An energy audit of the building also indicated that the entryway is a source of major energy loss. The school department recently installed a 12 kW ground mounted photovoltaic system to offset the electric energy cost of running the school. In 2016, an additional ground mounted photovoltaic system is being proposed, with the assistance of grant funding, to offset high electricity costs and to serve as an educational tool.

## Additional Challenges

Housing is the principal issue in hiring and retaining new teachers, as those who do not already possess stable, year-round housing tend to seek mainland positions. Turnover is an ongoing issue, ranging from one to four positions annually, although it is expected to stabilize at one to two positions annually on average in coming years.

Student travel to and from the mainland also presents a challenge in the form of attendance, requiring the school to adjust its schedule to reduce the impact of athletic travel on instructional time.

## Public Sewer

The New Shoreham Wastewater Treatment Facility is located on Spring St. just south of the Old Harbor and Downtown area. This facility was originally designed as an Extended Aeration Plant with conventional removal limits for BOD<sub>5</sub> and Total Suspended Solids with liquid sludge disposal. Since the facility's original commissioned in 1978 it has undergone a number of process improvements:

- SOLIDS HANDLING AND SECONDARY SETTLING 1985
- ANOXIC/AERATION SYSTEM IN 1993 AND 2006
- HEADWORKS IN 1997
- CHLORINATION/DECHLORINATION FACILITIES IN 1997 AND 2014 AND SECONDARY SETTLING
- SECONDARY SETTLING IN 2006
- SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) (2014)

The 2008 Permit allowed the facility to increase its average daily permitted capacity from 300,000 GPD (gallons per day) to 450,000 GPD. The level of treatment has also increased from secondary treatment to an advanced level of treatment that includes a reduction in nutrients and residual chlorine in its effluent discharge.

The sewer district includes all of Old Harbor, and New Harbor as far west as Champlin's Marina. It extends south to include the Spring House Inn and restaurant on Spring Street and the Block Island School and the Medical Center on High Street, and west to include the Town Hall on Old Town Road and properties at the west end of Connecticut Avenue. It extends along Corn Neck Road as far as the Beachead restaurant. The collection system consists of over 3.5 miles of lateral and intercepting sewer pipelines, and five pump stations (see Appendix SF-1 for description and locations of the sewage collection and pumping system). *Map SF2 Public Sewer* displays the current boundary of the public sewer system along with sewer lines and pump station locations.

In addition to processing most of the sewage from the water district, including that from hotels, marinas and public facilities at both harbors, the plant also handles waste pumped by contractors from individual on-site systems and waste from boat pump outs. It is designed and permitted to process an average daily flow of 450,000 gallons, with a peak of 1.2 million gallons per day (GPD). The plant processes a wide range of wastewater flows, from a high of 300,000 GPD (in the summer peak) to a low of 50,000 GPD (during the winter months). The treated effluent is pumped into the ocean from the outfall pipe in the jetty located off of Spring Street.

As it now encompasses essentially all of the commercial areas of the island, the sewer service area is not proposed to be extended any further. Under the current facilities plan, the capacity of the treatment system is adequate to handle present and future wastewater volumes; no expansion is anticipated.

## Public Water

Public water supply for the commercial area of Block Island was once provided by a private company. The water supply and distribution system was acquired by the Town in 1984 and operated as a town department, but is still referred to as the Block Island Water Company. Since 2000, operations and maintenance have been overseen by the Water District Commission, a Town Council appointed board.

With the exception of the area adjacent to and north of Sands Pond, the boundaries of the water district align closely with that of the sewer district. See *Map SF3 Water Supply* for the boundaries of the water district and water mains. In 2011, the water district was extended into the New Harbor commercial area. A large majority of residential properties on Block Island (estimated at 80%) are served by private wells.

The current capacity of the Block Island water system is .225 MGD (million gallons per day). See *Table SF-2* for average monthly and peak monthly water supplied in 2015. Block Island Water does not have an approved WSSMP (Water Supply Systems Management Plan). Block Island Water provides 50% of the total flow for the island in July and August.

	15-Jan	15-Feb	15-Mar	15-Apr	15-May	15-Jun	15-Jul	15-Aug	15-Sep	15-Oct	15-Nov	15-Dec
<b>Average (MGD)</b>	0.02001	0.02206	0.02206	0.03407	0.06216	0.09446	0.14581	0.14817	0.09105	0.04196	0.02492	0.02048
<b>Peak (MGD)</b>	0.03078	0.04965	0.03078	0.04406	0.09946	0.12383	0.17036	0.17448	0.15368	0.07978	0.03165	0.02577

The water supply comes from a well field north of Sands Pond, consisting of three main production wells. At any time, two of the wells are in operation, allowing one to be off-line but serving as a back-up during the high demand season. Three reverse osmosis units provide for 240,000 gallons per day of potable water. Storage capacity consists of two 150,000 gallon tanks.

Total average annual flow generated by the Water Company is 20 million gallons. Peak loads of over 4 million gallons a month occur in July and August, with about 180,000 gallons per day consumed on peak

weekends. The water district also includes a “stand-by” service agreement with several large water users (hotels, restaurants, Town Beach) who now rely on private wells. This has the potential to substantially add to water demand during the summer season.

Over the years, the Water Company has made many system improvements, including reverse osmosis treatment; water main replacements, upgrades for fire protection and extensions; and a concentrate force main extension for a direct permitted discharge into the ocean.

Future demands on the water system may come from any of a number of sources. Further connections within the present water district and/or requests for extension could be precipitated by state regulatory mandates. Future expansion of the distribution lines may extend to small lots adjacent to the district where groundwater supply may be unsustainable, where there may be an endangerment to the public water, or where public health may be an issue.

State regulations require a backup emergency water supply plan. Unlike mainland towns, in an emergency New Shoreham cannot tap into another public water supply. At present, three smaller wells and surface water from both Sands Pond and Fresh Pond remain the approved backup sources.

*The Block Island Water Company acknowledges that public water supply is critical to the Island and that there are no interconnections with other municipalities that could assist in emergency conditions. As an island, the Water Company is required to control the expansion of the water district based upon the ability of the Water Company to produce an adequate water supply to its existing customers.*

*The difficulty with a community such as Block Island, the water demands are not driven by the population within the service area. It is driven by the influx of daily visitors to the Island. Therefore, projected water demands based on population projections and growth within the water district are not applicable in this scenario. To achieve the necessary control in the increase in water users, the Block Island Water Company meets annually to establish an allocation of water that may be sold to users who wish to tie into the Water Company. The maximum capacity of the water treatment system is 245,000 GPD, which is based on the maximum production for the treatment facility. To establish the future water demands, the Water Company factors in daily production during the summer quarter plus the standby user allocation. This combined total is the basis for water consumption over an annual period of time.*

*The difference between the actual usage plus standby requirements and the 80% of the water treatment capacity is what can be distributed to new users. For example, in 2015, the Water Company produced 128,750 gallons during the summer quarter; the standby customers total 55,870 GPD for a combined average summer flow of 184,620 GPD. The Water Company allocates 80% of the production of the treatment plant (245,000 GPD x 80%) allows 196,000 GPD that can be produced and distributed to the public. Based upon 2015's usage and commitment of 184,620 gallons, the available allocation for the year 2015 was 11,380 gallons. In this manner, the Water Company can control the growth within the water district.*

Adequacy of water supply in the event of severe drought is a matter of public concern that goes beyond service to those connected to the town water system. The Water Company has planned carefully for emergencies, including drought, and has a well-considered system of primary sources with redundant back-up sources in the event of emergency need. Those on private wells are generally protected in that such wells are typically designed at a location and depth to provide adequate supply even in drought conditions. The Town's regulations include the management of on-site wastewater treatment systems and restrictions on

underground storage tanks. Taken together, these efforts represent a robust in reducing the island's vulnerability in periods of low precipitation, and minimizing its effects on public health and safety, economic activity, and environmental resources.

Block Island's groundwater supplies are irreplaceable, and essential to the town's quality of life and economic wellbeing. The Town of New Shoreham has a long record of action to protect this critical resource. Island groundwater quality is currently excellent. A primary goal of this local comprehensive plan is to maintain the current high water quality for water supply and protection of unique habitat. Low density zoning for much of the island limits both development potential and future risk to water resources, particularly when coupled with other groundwater protection regulations. However, nitrogen levels in many of the public wells are slightly elevated, underscoring the need for continued implementation of the town's comprehensive wastewater management program. Leaks from underground fuel tanks and other hazardous material spills are an ongoing concern, especially in the wellhead protection area encompassing the downtown commercial district. Sewers in much of this area reduce risk of contamination from wastewater discharges provided sewer lines are watertight. However, sewers also reduce groundwater recharge, which can lower groundwater levels and promote salt water intrusion.

## On-Site Wastewater Treatment Systems

As of 2015, there are 1,674 on-site wastewater treatment systems (OWTS's) on the island. Since the adoption, in the late 1990's, of the Wastewater Management Ordinance which regulates the installation of new on-site systems, and separate regulations in the Zoning Ordinance which provide for the maintenance and inspection of existing systems, Block Island has been aggressive in protecting its groundwater from failed and inadequate OWTS's.

Under the required inspection program for all OWTS's, conventional systems are inspected on a three year cycle, while alternative systems and systems within critical resource areas are inspected annually. The Town contracts with an environmental services company which provides and manages a database of all systems on the island. Since 2006, there have been 272 failed systems identified through the inspection program which have been replaced.

The Office of Wastewater Management oversees the inspection program with the objective of protecting the island's sole source aquifer, the Great Salt Pond, Fresh Pond and Sands Pond from any pollution from septic system effluent. It also reviews all new system designs prior to their submittal to the RI Department of Environmental Management for approval. This review ensures that proper design and treatment levels are adhered to for specific areas and soil conditions on the island.

One concern is the prevalence of septic system drain fields consisting of deep concrete chambers, referred to as galleys. Such drain fields are considered inadequate for pollution removal, particularly when the bottom of the drain field is located less than three feet from the seasonal high groundwater table. Galley drain fields are specifically prohibited in new or enlarged on-site wastewater systems, however, as of 2014 there are 242 existing systems on the island with galley drain fields. Local regulations requiring the replacement of these systems are being considered.

In addition, following the completion of the first maintenance inspection of all septic systems on the island, some drain fields could not be identified and were classified as “unknown”. This raises concerns that many are not of an approved type, or could be failing. As of 2014, there are 282 systems on the island with unknown drain fields, meaning that their functioning or effectiveness in removing pollutants is not certain.

Among these systems with potentially inadequate or failing drain fields, 117 of them are within critical resource areas including the Great Salt Pond, Fresh Pond and Sands Pond watersheds. Identification and replacement of all failed systems must be done on Block Island, with priority placed on those systems within the critical resource areas.

## Solid Waste Disposal

All of the solid waste generated on Block Island, including recyclables and sludge from the sewage treatment plant, is trucked off-island. With the exception of scrap metals, all waste is disposed of or processed at the state-owned Central Landfill (RIRRC) in Johnston, Rhode Island. Waste is taken to the town-owned transfer station on West Beach Road by residents, individual businesses and private haulers, where it is stored, sorted and compacted in preparation for transport off the island. The cost of processing material on island far exceeds the cost of shipping to RIRRC.

The transfer station is a solid waste facility licensed by the RI Department of Environmental Management with an operating capacity of 25 tons per day. The Town contracts with a private company, currently Block Island Recycling Management, to operate the transfer station and to truck the waste and recyclables to the landfill and elsewhere. The facility itself, is in need of improvements, and specifically identified is the need for a drainage plan. With facility improvements including additional processing capabilities, more recyclables may be able to be removed from the waste stream, specifically construction and demolition debris.

The operation of the transfer station is a “pay as you throw” system. All entities pay a disposal fee for solid waste based on weight. Residential customers do not pay a fee for recyclables (nor for waste oil), although commercial customers do. A description of the management of the transfer station and the volumes of refuse and recyclable materials is contained in the Island Energy Plan. It also includes specific recommendations relating to recycling and the potential use of alternative technologies to dispose of solid waste.

There are separate fee schedules for appliances (white goods) and metals, mattresses and furniture (bulky items), batteries, tires and even automobiles, all of which are disposed of at the Central Landfill or recycled. Construction and demolition waste is disposed of at the same rate as the other solid waste, as is yard waste, the large majority of which consists of brush, which is chipped and stored, and when stockpiles reach a certain volume, shipped to the Central Landfill. In order to reduce transportation costs, it would be advantageous to compost leaf and yard waste on-island.

The Town has a separate services agreement with the Rhode Island Resource Recovery Corporation to dispose of all waste from the island. RIRRC receives a tipping fee of \$32 per ton, the municipal rate, provided Block Island does not exceed its annual municipal cap. As with all communities, the cap is based on

population. Because of the substantial increase in population and activity during the summer tourist and vacation season, RIRRC grants Block Island a seasonal cap adjustment allowing additional tonnage. As of FY 2017, the seasonal cap allotment is 1,079 tons and the Town is also permitted 28 tons of yard debris.

The operator of the transfer station serves as the Town's agent, handling all payments to the RIRRC. As a result, there is no direct cost to the municipality to dispose of the waste generated on the island, with the exception of the waste generated by the Town itself (school, town hall, police and fire stations, town beach, etc).

In order to reduce financial and environmental costs, Town policies and programs should be in place to promote and expand on-island recycling and composting. Reducing the amount of material, such as glass and yard waste, that must be transported to mainland landfills would create a more efficient and environmentally sustainable solid waste management program. The Town should implement public education efforts and programs which encourage and incentivize recycling and composting by residents and businesses. Per State requirements, profit-sharing funds received from RIRRC must be directed towards programs that promote recycling and composting.

Currently, in cooperation with RIRRC, the transfer station holds a hazardous waste collection event every other year. Beyond that, island residents must transport their hazardous waste to RIRRC. Increased opportunities to dispose of hazardous waste properly and safety on island should be explored.

## Solid Waste Recycling and Diversion Rates

The official recycling rate on Block Island, as reported by RIRRC annually, is approximately 20% of total waste (by tonnage). Many communities in Rhode Island have a higher recycling rate, but these rates are a measure of the residential waste only. On Block Island, the recycling rate is measured against all solid waste, including commercial, which makes up approximately 90% of the total.

***New Shoreham Mandatory Recycling Rate (2015): 19.7%***

***State Average Mandatory Recycling Rate (2015): 36.0%***

***New Shoreham Rate of Overall Material Diversion from Landfill (2015): 20.4%***

***State Average Rate of Overall Material Diversion from Landfill (2015): 35.6%***

As the rates above indicate, New Shoreham is below the State average recycling and diversion rates and the state mandated 35% recycling rate and 50% diversion rate. A goal of this plan is to identify steps the Town can take to achieve and exceed those rates.

## Electric Power

Block Island's interest in alternative energy is related not only to the high cost of electricity on the island but

a concern with dependence on fossil fuels and its environmental impact, particularly in this era of rising awareness of climate change. As stated in the Island Energy Plan: “life on the island is infused with a sense of self-reliance, a strong conservation ethic and sensitivity to the environment.” A goal identified in the Island Energy Plan is to establish renewable energy systems at all feasible municipal locations, with specific emphasis on additional solar PV (photovoltaic) systems.

Block Island Power Company (BIPCO) provides virtually all of the electric power needs of the island. However, beginning in the late 1980’s, there was a movement toward use of individual solar panels, both domestic hot water and photovoltaic, as well as individual wind energy conversion systems (WECS). A few households are not connected to the BIPCO distribution system, demonstrating that it is feasible to use a combination of alternative energy sources to live off the grid.

According to BIPCO, as of 2016, there are an estimated 22 residential properties, five non-residential properties and two wind turbines on the island that generate renewable energy and are registered/interconnected with BIPCO. There may also be some additional residences which are off the grid supported by solar and unregistered.

There has been considerable discussion over the years on the need for and viability of additional turbines on the island, including larger capacity turbines. In September 2014, the offshore wind farm proposed by Deepwater Wind, LLC received its federal permits through the U.S Army Corps of Engineers. The first was for five wind turbine generators with a cable connection to Crescent Beach on Block Island, while the second was for the 21 mile cable to the mainland from Crescent Beach to Scarborough State Beach in Narragansett. A cable connection to a National Grid substation in Narragansett will bring the wind farm power to the mainland grid and fiber (high speed internet) to the island. Construction of the offshore wind farm and cable to the mainland was completed in Summer of 2016. It is the first offshore wind farm in the Eastern United States.

In September 2016, New Shoreham voters approved the debt necessary to purchase BIPCO shares. The Town has agreed to purchase a 2/3 majority interest in BIPCO and convert it to a nonprofit organization with professional management and a Board of Directors elected by the ratepayers. An advisory transition team has been appointed by the Town Council to oversee the purchase and transition of the Power Company.

The Island Energy Plan should be updated to reflect the recent and fundamental changes related to electric power (community control of BIPCO and the development of an offshore wind farm).

## Island Free Library

The mission of the Island Free Library is to fulfill the informational, cultural and recreational needs of its patrons by providing a full spectrum of library services. These include:

1. ACCESS TO PRINT, AUDIO, VIDEO AND ELECTRONIC FORMATS;
2. FOSTERING A LIFELONG LOVE OF READING WITH PROGRAMS FOR CHILDREN AND ADULTS; AND
3. PROMOTING COMPUTER LITERACY THROUGH APPROPRIATE FORMS OF INSTRUCTION.

The library has a full-time director and a staff of four. It offers a number of programs and activities for both children and adults that include arts and crafts, reading programs and book clubs, movie nights, computer instruction and musical events. The library is a strong community resource, encouraging use of its space by other groups and organizations for discussions, meetings and tutoring.

In 2002, the Island Free Library underwent extensive renovations and expansion, doubling its floor area, providing greatly expanded children's and juvenile areas, separate computer rooms for adults and children, and enlarged office space. The structure is currently adequate, however, technology will require continual upgrading, and children's services will also need to be gradually expanded in order to maintain compliance with State mandates.

## Block Island Medical Center and Public Health Services

The Block Island Medical Center is a fully equipped medical facility which offers both daily care and urgent care services. Opened in 1989, it is the sole provider of medical care on the island. It is staffed year-round by a physician, a nurse practitioner and a registered nurse. It also provides facilities for telemedicine and regular visits by several specialists providing dental care, orthodontics, acupuncture, chiropractic care, podiatry, and massage therapy. During the summer the medical staff supervises students and residents from Brown University Alpert Medical School who assist with patient care.

As expected, the Medical Center is busiest in the summer, a reflection of both the high number of daytrippers who may suffer a range of seasonal afflictions, from the minor (sunburns) to the more serious (broken bones or concussions from bicycle and moped accidents) and the medical needs and medical emergencies related to the substantial increase in the resident population during the summer months.

In addition to daily care, the Medical Center offers free blood pressure clinics, flu shot clinics and Lyme testing and referrals, and study groups. When critical care is needed, the medical center and the Block Island Rescue Squad, in conjunction with the ferry and airline companies and a regional helicopter ambulance service, arrange for and provide emergency transport to mainland hospitals.

The Medical Center is maintained and operated by Block Island Health Services, Inc. a private non-profit governed by an elected board which consists of seven from among its paid membership, two from the general public (New Shoreham registered voters or property owners) and an appointee from both Block Island Rescue and the Town Council. In addition to the physician, nurse practitioner and nurse, the staff includes an executive director, an office support specialist / receptionist and financial specialist. While it receives operating funds from the Town, the Medical Center also relies on patient fees, donations, grants and special event revenues.

The medical center property and an adjoining parcel which contains two staff residences, including the Doctor's House and the Davidson House for the Nurse Practitioner, are owned by the Town of New

Shoreham. A major renovation was completed to the Doctor's House in 2016. **There still remains a long term need to provide additional housing for medical center staff, particularly for the summer residents and medical students.**

On Block Island the high per capita incidence of Lyme disease and the less common but often more serious (and harder to diagnose) babesiosis, both tick borne viral diseases, are of special concern. The high incidence is most likely related to the large population of deer, who host part of the life cycle of the deer tick which carries and transmits the diseases to humans. The Town Council appointed an advisory Deer Task Force in 2011 to recommend policies to achieve a reduction in the deer herd.

The Medical Center tracks the number of Lyme disease bacterium and babesiosis cases, and provides this information to the Town and the Deer Task Force on a regular basis. The center diagnosed 73 cases of Lyme in 2013 and 53 cases in 2014. However, the actual number of cases are likely underreported as many vacationers contract the disease on the island but are diagnosed at home, and others may be unaware of their infection.

#### *Mental Health*

A mental health task force referred to as NAMI (National Alliance on Mental Illness) Block Island has been a major advocate for increased mental illness support and services on Block Island. The group's goals are to bring more on-island services, to educate the community about mental illness and to support families with mental illness. A member of the Medical Center staff serves on the task force.

Currently services related to mental health on Block Island include: free telemedicine conferences with psychiatrists at Butler Hospital in Providence and Brown University Medical School; public educational programs on various mental conditions and illnesses; response training; and a family support group. As of 2015, the Medical Center provides the space for a part-time case worker who handles referrals for the telemedicine program. This position is hired by NAMI (national) and Butler Hospital and is paid through fundraising efforts by NAMI Block Island. NAMI Block Island is advocating for a full-time staff person with broader functions and a long-term funding source for the position.

The Block Island Medical Center, NAMI Block Island, the school department, the police department, the churches and various island organizations must work together to address public health concerns on Block Island, particularly mental health and substance abuse. It is recommended that the NAMI BI Mental Health Task Force continue to expand its task force to include representation from various organizations that will assist the group in better advocating for the identification of at risk individuals, provision of counseling, and identification of available resources both on and off island. Currently serving on the NAMI BI Task Force are individuals who also represent the School, Library, Medical Center, Wellness Coalition, and Planning Board.

#### *Telemedicine*

The difficulty of travel to places where such specialized health services are available poses an inherent challenge for Block Island residents. In an effort to combat this challenge, there is a strong desire to increase telemedicine opportunities on Block Island. Of particular need, are telemedicine conferences for children.

## Community Center and Services

The Old Harbor Meadow Community Center was built in 2002, and is run by the Block Island Economic Development group (BIED). BIED is a private non-profit whose mission is to improve the economic and social conditions for residents of Block Island, including development of affordable housing. The community center is located in the center of Old Harbor and is part of a development, Old Harbor Meadows, which includes eight ownership and one rental low and moderate income housing units. The community center also houses a private pre-school. The space is available to rent for community activities such as senior activities, art gallery space, or meeting space for town boards and island organizations.

### Early Learning Center

The Early Learning Center is housed in half of the community center. Its location off the street provides easy access to the Island Free Library and other community activities and natural resources. The original center was founded in 1977 and operated as a private nursery school by the Town of New Shoreham. When it moved to the Old Harbor Meadow Community Center building, its services were expanded to include a preschool and child care program. The Early Learning Center is a state licensed teaching facility. It is funded by tuition, support from the Town, and private donations.

### Senior Services

Census figures indicate a large increase in the number of Block Island residents over the age of 55. A breakdown by age of island residents as counted in both the 2000 and the 2010 Census is shown in Table SF-3 New Shoreham Census by Age.

Age	2000	2010
Under 5	63	36
5-19	137	133
20-34	163	126
35-54	353	330
55-74	230	329
75+	64	97
TOTAL	1,010	1,051

The small community and the isolation of living on an island, particularly during the winter, present special challenges for seniors, but efforts are made to meet these challenges. Resources on Block Island available to seniors include:

- \* THE PRIVATELY-OWNED COMMUNITY CENTER, DISCUSSED ABOVE, WHICH PROVIDES A COMFORTABLE SPACE FOR SENIORS AND THEIR ACTIVITIES.
- \* THE MEDICAL CENTER, OPERATED BY BLOCK ISLAND HEALTH SERVICES, INC., WHICH PROVIDES PRIMARY CARE, WITH SUPPORT FROM A WELL-EQUIPPED RESCUE SQUAD. LONG TERM CARE IS AVAILABLE AT NEARBY MAINLAND FACILITIES.
- \* VOLUNTEER AGENCIES AND LOCAL CHURCHES WHICH PROVIDE HOME CARE AND ASSISTED LIVING, AND THE “MARY D. FUND” WHICH PROVIDES FINANCIAL SUPPORT.
- \* THE SENIOR ADVISORY COMMITTEE WHOSE CHARGE IS TO:
  1. ORGANIZE PROGRAMS FOR SENIOR CITIZENS (IN ADDITION TO ALREADY ESTABLISHED PROGRAMS SUCH AS LUNCH, MEDICAL, AND RECREATION PROGRAMS);
  2. IDENTIFY AND PROMOTE SENIOR CITIZEN PROGRAMS AND SERVICES; AND
  3. CONSULT WITH THE ISLAND’S SENIORS AND ADVISE TOWN COUNCIL ABOUT THEIR NEEDS, ISLAND-UNIQUE PROBLEMS, AND SUGGEST SOLUTIONS AND ACTIONS THAT WILL BENEFIT BLOCK ISLAND SENIOR CITIZENS.

A variety of recreation and social programs are currently available, including lunches, and inexpensive off-island trips for shopping and shows. Seniors on the island are typically actively involved in community and civic affairs.

The Senior Advisory Committee has conducted surveys of the senior population on Block Island. Results of a survey from 2014 of over 300 senior residents indicate that 91 live alone and 75 need assistance with travel off-island. Ten percent of the 300 seniors surveyed said they currently receive personal care assistance and 180 seniors indicated that they may require the services of a personal care assistant in the near future.

Providing an option for seniors to age in place is an important policy and will require that the town proactively prepare for and consider the needs of its aging population including assisted living needs.

## Public Safety

Block Island's public safety buildings include the police station, built in 1970, the attached fire barn, built in 1972, and the newer rescue barn, built in 2007. These structures are located on the same parcel on Beach Avenue in the village between the two harbors, but closer to New Harbor. There is a need for a new Fire Station, which was identified as an action in the Town's Hazard Mitigation Plan.

Block Island's police, volunteer fire and rescue squad, and the harbor master all provide critical public safety services in an efficient, sensitive and highly skilled manner. Relations with the community at large are strong, not only because of the quality of the services but also because almost all of the staff are year-round island residents. There are no issues of inadequate funding or staffing during the off-season. It is important for the island to maintain this high level of public safety, especially during the tourist season. It is anticipated that at some point in the future the island will need the state police presence to expand beyond just weekends to every day during the peak summer period. Paid Fire and Rescue staff may also be necessary at some time in the future.

### Police

As of 2015, the Block Island Police Department has five full-time officers, including the chief, as well as four full-time and two part-time dispatchers. Eight additional officers, as well as three community service officers (bicycle patrol) and one police dog (K-9) work seasonally to handle the extra demand during the busy tourist season. During the months of July and August there is also a Rhode Island State Trooper presence on the island Friday through Sunday.

The department embraces a community oriented policing style typical of a small geographically isolated community where the officers and residents are well known to each other. The police on Block Island rarely deal with serious crime and even in the summer with the large influx of visitors and vacationers, the major challenge in recent years has been managing crowds of day trippers. Incidences of public intoxication occur particular around the 4<sup>th</sup> of July holiday. The New Shoreham Police Department maintains a Facebook page and is helped out by the Block Island Times which publishes a page every year in the *Summer Times* to guide visitors: "When You're On The Block". This page summarizes the relevant town ordinances, restrictions and policies, and provides phone numbers and other helpful information.

## Fire and Rescue

The Block Island Volunteer Fire and Rescue protects life and property on the island and provides assistance in medical emergencies. Fire and Rescue is staffed by about 75 volunteers. The rescue squad maintains its status as a volunteer organization with the exception of a twelve-week period in the summer when people are paid to be on call in order to avoid any serious lapse in caring for the community and its visitors. Charges are limited to costs for transport to the mainland. The department also conducts fire safety awareness and training in CPR, First Aid and other courses.

## Harbors

The Harbors Department, staffed by a harbor master and administrative assistant, manages Block Island's two harbor areas, Old Harbor and New Harbor (The Great Salt Pond). Responsibilities include issuing mooring permits, managing the town rental moorings and monitoring dockages and overnight anchorages in the Great Salt Pond. The department also issues shell fishing licenses. During the summer the Harbors Department hires over 20 seasonal employees who work between Old Harbor and New Harbor (mostly New Harbor) running the pump-out boats, collecting mooring fees, working in the department office in New Harbor (Boat Basin) and as shellfish wardens.

The Harbors Department prepares an annual "Harbors Guide" to guide visitors arriving by boat. It addresses pump-outs, the mandated landing fee (fifty cents) and the location of showers and other amenities; and it summarizes the harbor ordinances, describes the allowable anchorage areas, and provides phone numbers and other helpful information. A description of the town harbors and infrastructure is also included in a 2013 report "Block Island Harbors Sea Level Rise and Adaptation Study." Improved harbor facilities, including a Welcome Center, have been identified as a need in order to maintain and attract visitors to the island arriving and staying overnight on personal watercraft in New Harbor.

## Municipal Governance

### Town Hall

The Town Hall was rebuilt and expanded in 2007. It houses all municipal departments, with the exception of public safety and public works, and provides the official meeting space for the Town Council and all other boards, commissions and committees. A listing of all Town of New Shoreham departments and services is contained in Appendix SF-2.

### Boards and Commissions

A listing of all town of New Shoreham sponsored or affiliated boards, commission and committees is contained in Appendix SF-3.

### Capital Improvement Program

As required by charter, The Town has a capital improvement program for long term facility needs. In 2014, the Planning Board formed a subcommittee, the Large Capital Asset Subcommittee (LCAS), to work on a ten to fifteen year strategy for all town properties and buildings. The committee was tasked with:

- \* COMPILE A LIST OF ASSETS AND FIELD EVALUATE;
- \* IDENTIFY THE CURRENT AND POTENTIAL LONG TERM USE OF EACH PROPERTY;
- \* IDENTIFY MAINTENANCE AND REPAIR/REHABILITATION NEEDS;
- \* IDENTIFY SOLUTIONS AND CONSIDER FUNDING SOURCES; AND
- \* MAKE RECOMMENDATIONS TO THE TOWN COUNCIL AND TOWN MANAGER

These tasks should include public outreach and meetings, and culminate in the preparation of a summary report with both short and long term recommendations and solutions. As a result of the LCAS work, New Shoreham created a new town position effective July 2015, a Facilities Manager, to oversee, maintain and plan for the use of and improvements to town buildings. The establishment of the Facilities Manager is the first step towards the long term goal of proactively managing town facility maintenance needs.

There has been increasing interest in having a range of community facilities and gathering spaces. Specifically, the following facility needs have been identified:

1. A COMMUNITY MEETING SPACE WHICH WOULD BE AVAILABLE FOR LARGER ASSEMBLIES AND ACTIVITIES.
2. A DEDICATED SPACE FOR SENIOR CITIZENS TO SOCIALIZE.
3. A "TEEN CENTER" FOR YOUNG PEOPLE TO GATHER AFTER SCHOOL AND ON EVENINGS AND WEEKENDS.
4. A FITNESS CENTER
5. AN INDOOR POOL FOR INSTRUCTION, RECREATION AND THERAPEUTIC USE DURING OFF-SEASON MONTHS.

In general, the available programming is as important as, or more important than, developing a new physical space. The community has many facilities available for community activities, both public and private.

Expanded programming can often be achieved through creative use of existing facilities, especially during the shoulder and off-tourist seasons.

## HOUSING FOR MUNICIPAL STAFFING

**MULTIPLE TOWN SERVICES AND DEPARTMENTS INCLUDING POLICE, HARBORS, AND THE SCHOOL, HAVE IDENTIFIED ATTAINABLE YEAR-ROUND AND SEASONAL HOUSING AS A SUBSTANTIAL CHALLENGE IN THE HIRING AND RETENTION OF QUALIFIED PERSONNEL.** The Thomas House,

owned by the Town, has been pivotal in providing a limited amount of temporary housing for government functions. The second town-owned facility that currently provides temporary / seasonal housing for municipal employees is the Coast Guard Station. However, the structure is in need of significant repair and a more appropriate long-term use for the waterfront property is being explored. A substantial number of seasonal employees, including but not limited to: State Police; local police; community service officers; clam wardens; harbor personnel; life guards; and medical center staff are required to fulfill a variety of municipal functions during the peak tourism season. The Town also is in need of attainable rental housing for longer term year-round personnel such as teachers. Given the private housing market is not providing for these housing needs, the Town must consider the creation of additional municipally-owned housing units for its staffing needs. Currently, the Town does incur housing costs related to specific municipal positions and government functions, as well as, overnight accommodations for town consultants. An analysis should be conducted to determine costs currently incurred and estimated costs related to providing town-owned and operated housing for municipal staffing needs. See Housing Chapter for additional information and discussion.

## Stormwater Management

Block Island has a limited amount of stormwater infrastructure. Therefore, maintenance needs, including the annual cleaning of catch basins, and associated costs are minimal and are currently covered by the town's budget. The town is currently exploring stormwater management measures to ensure the island's water quality, particularly The Great Salt Pond and drinking water supplies, remain of high quality. It is anticipated the Town will take steps in the short-term to increase public education on the importance of stormwater management and to complete a management plan for the Great Salt Pond watershed.

## Sustainable Development and Fiscal Responsibility

*The needs and desires for high quality public services and facilities must be balanced with the needs and desires for both environmental and fiscal sustainability.*

The provision of community services and facilities must be done in a manner that reflects the capability of both community resources and the island environment to sustain growth and demand. On the one hand, Block Island must prepare for the long term impacts of "build-out" and the resulting demand for services, a

function of both total population and the socioeconomic profile of that population. On the other hand, the provision of services and facilities should be done in a manner that supports land use goals, natural resource protection and the long-term ability of the town to fiscally maintain increased services and facilities. For example, the water and sewer districts should be designed to serve the goal of a compact village center but not to encourage growth beyond it.

Sustainable development is linked with almost every other major goal of this comprehensive plan – compact development in the village and harbor areas and low density residential in the countryside; protection of valuable open space, habitat areas and the sole source aquifer; reduced energy consumption and transportation-related congestion; and a reliance on sustainable and manageable economic development. Block Island must consider the allocation of its services in a way that meets, or does not detract from, these goals.

The potential for providing additional or enhanced services as well as reducing costs through regional approaches deserves exploration. Education, tourism, and utilities all have apparent potential as activities or services that could be done in conjunction with other communities. For example, the Island Energy Plan includes a recommendation that the Town pursue a regional composting facility with other Washington County communities. However, Block Island's geographic isolation make such arrangements challenging, particularly coming up with an equitable way of determining expenses and benefits.

## Goals, Policies & Implementation Actions

### Goal SFI: Meet current needs and plan for anticipated future needs of residents for municipal services and facilities

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
SFI.A. Continue to provide a quality K-12 education which utilizes the latest educational tools and technology	SFI.A.1. Make reliable high-speed internet available to the Block Island School and library in order to maintain and expand its educational programming	School; Information Technology	Short-term
	SFI.A.2. Undertake efforts to maintain and improve the long term viability of the public school system in response to reduced enrollment, including a plan to expand education on the island	School	Ongoing
SFI.B. Proactively plan for the long term use and maintenance of all town owned buildings and properties	SFI.B.1. Include costs of necessary and significant improvements to town facilities in the capital budget	Facilities Manager; Planning Board; Finance; Town Manager; Town Council	Ongoing
	SFI.B.2. Explore reuse and rehabilitation of existing town structures for identified community needs	Facilities Manager; Town Manager; Planning Board	Short-term
SFI.C. Support community health needs including mental health	SFI.C.1. Expand access to mental health treatment and substance abuse counseling	Block Island Medical Center; NAMI Block Island; Town Council	Ongoing
	SFI.C.2. Increase telemedicine opportunities	Block Island Medical Center; Information Technology	Short-term
	SFI.C.3. Assist in identifying a long-term funding source for a mental health case worker	NAMI Block Island; Town Council	Short-term
	SFI.C.4. Ensure town departments are represented and contribute to NAMI BI task force	NAMI Block Island; Town Council	Short-term
SFI.D. Provide opportunities for aging in place and support services for seniors	SFI.D.1. Evaluate current and anticipated future need for additional senior support services and staff including a social worker	Senior Coordinator; Senior Committee; Town Council	Medium-term
	SFI.D.2. Promote and permit the development of appropriately located assisted living housing and	Senior Committee; Town Council	Long-term

	transportation services		
SF1.E. Make health and safety of residents and visitors of the highest priority	SF1.E.1. Communicate public safety needs to the State including a potential need for additional State Police presence during summer months	Police; Town Manager	Short-term; Ongoing
	SF1.E.2. Evaluate need for paid fire or rescue personnel	Town Manager; Town Council; Fire	Medium-term
SF1.F. Ensure municipal staffing needs are not compromised by lack of attainable housing	SF1.F.1. Conduct a cost analysis comparing average annual costs associated with housing town staff and consultants and costs associated with the development and ownership of municipal housing for staff.	Town Manager; Facilities Manager	Short-term

**Goal SF2: Ensure environmental and fiscal sustainability in the provision of municipal services and facilities**

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
SF2.A. Promote natural resource conservation, particularly among island visitors	SF2.A.1. Work with Tourism Council, Chamber of Commerce and other partners to promote water conservation, energy conservation and solid waste reduction among tourism industry and visitors	Conservation Commission	Ongoing
SF2.B. Continually explore ways to reduce the costs of delivering services and operating facilities without compromising quality	SF2.B.1. Utilize on-site renewable sources of energy where feasible	Facilities Manager	Ongoing
	SF2.B.2. Explore regional provision of services opportunities	Town Manager; Town Council	Ongoing
	SF2.B.3. Update Island Energy plan to reflect recent BIPCO purchase and off-shore wind farm.	Planning Board	Short-term
SF2.C. Maintain tourism economy by providing quality facilities and amenities for visitors	SF2.C.1. Implement plans to provide improved facilities including a welcome center at New Harbor for visitors arriving by personal watercraft	Harbors; Town Council; Town Manager	Long-term
SF2.D. Meet or exceed the state's mandated 35% recycling rate and 50% diversion rates for solid waste	SF2.D.1. Conduct a waste audit of municipal facilities	Town Manager	Short-term
	SF2.D.2. Launch composting program and public education campaign	Conservation Commission; Town Council	Short-term
	SF2.D.3. Provide incentives to residents to compost and increase recycling efforts	Conservation Commission; Town Council	Ongoing
	SF2.D.4. Make necessary upgrades to the transfer station including drainage improvements and improved processing capabilities	Town Council; Town Manager; Facilities Manager	Long-term
SF2.E. Increase water quality protection efforts including stormwater management	SF2.E.1. Educate the public on the problems associated with impaired stormwater quality, the conditions which contribute to impaired water quality, and the actions which can be taken by the community both individually and as a whole to improve the quality of stormwater runoff	Planning Board; Building, Zoning, Land Use, & Planning; Public Works; Town Council	Short-term; Ongoing

	SF2.E.2. Complete a watershed management plan	Building, Zoning, Land Use & Planning; Planning Board; Public Works; Town Council	Medium-term
	SF2.E.3. Review and strengthen current regulations regarding LID (low impact development) (NR2.A.3.)	Building, Zoning, Land Use & Planning; Planning Board; Town Council	Medium-term
	SF2.E.4. Continue to identify inadequately functioning or failed systems through an inspection and monitoring program, first targeting critical resource areas	OWTS Inspector	Ongoing
	SF2.E.5. Draft regulations which will require phase out of septic systems which do not meet current standards for on-site treatment and explore funding opportunities to assist homeowners	OWTS Inspector; Planning Board; Town Council	Short-term

**Timeframes:** Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

## APPENDIX SF-1

**NEW SHOREHAM SEWAGE COLLECTION AND PUMPING SYSTEM**

The New Shoreham Water Pollution Control Facility's collection system consists of 3.5 miles of lateral and intercepting sewer pipelines and five (5) pump stations. The general layout of the collection system is presented in Figure 6-1.

The lateral system consists of 14,500 feet of 8-inch diameter sewer pipes, while the intercepting lines consist of 3,700 feet of 10-inch through 15-inch diameter sewer pipes. The pressure system consists of 910 feet of 4-inch diameter sewer pipes.

**Interceptors**Ocean Avenue Interceptor West

The Ocean Avenue Interceptor West begins at Ocean Avenue Pump Station No. 2 and terminates at the intersection of West Side Road and Ocean Avenue. The line consists of 750 feet of 10-inch sewer pipes. It serves BIED Housing ("West Side Twenty"), Champlin's Marina, the Block Island Boat Basin, Payne's Dock and two hotels; the service area is principally composed of business properties.

Ocean Avenue Interceptor East

The Ocean Avenue Interceptor East starts at Ocean Avenue Pump Station No. 1 and terminates at the intersection of Ocean Avenue and Beach Avenue. The line consists of 2,600 feet of 12-inch diameter and 500 feet of 10-inch diameter sewer pipes. The upstream contributor is the Ocean Avenue Pump Station No. 2, and the incremental contributors are both commercial and residential.

High Street Connector

The High Street Connector is located 200 feet west of Water Street. It originates on High Street 200 feet west of Water Street and follows a right-of-way in a northerly direction to Chapel Street, paralleling Water Street. The line is 560 feet long. The service area encompasses High Street and Spring Street and consists of both commercial establishments and residential properties.

Chapel Street Interceptor

The Chapel Street Interceptor serves the majority of the sewer area. The interceptor starts at the intersection of Chapel Street and Water Street and proceeds in a westerly direction along Chapel Street to its point of termination at the intersection of Old Town Road and Chapel Street. The interceptor is 1,100 feet long and consists of 400 feet of 10-inch sewer pipes and 700 feet of 12-inch diameter sewer pipes. The upstream contributors are both commercial and residential.

Water Street Interceptor

The Water Street Interceptor serves the entire collection system. The interceptor consists of 800 feet of 15-inch diameter sewer pipes that commences at the Old Harbor Pump Station and proceeds in a westerly direction in a right-of-way to Water Street, then northerly to its point of termination at the intersection of Water Street and Chapel Street.

**Pump Stations**Champlin's Marina Pump Station

The Champlin's Marina Pump Station is located at Champlin's Marina serving 240 boat slips, a restaurant, theater and apartments. The pump station is a below-ground lift station with a wetwell located in the lower level, and a pump chamber located in the upper level.

Block Island Boat Basin Pump Station

The Block Island Boat Basin Pump Station is located at the Block Island Boat Basin serving 70 boat slips, a restaurant and a grocery store. The pump station is a below-ground lift station with a lower level serving as the wetwell, and an upper level for pump motors and controls.

Ocean Avenue Pump Station No. 1

Ocean Avenue Pump Station No. 1 is located on Ocean Avenue, 600 feet east of Connecticut Avenue. The pump station is a below-ground lift station serving an area from Harbor Pond to Champlin's Marina. The station feeds a force main along Ocean Avenue in an easterly direction to Old Town Road, then southerly along Old Town Road to the Chapel Street Interceptor.

Ocean Avenue Pump Station No. 2

The Ocean Avenue Pump Station No. 2 services Champlin's Marina, the Block Island Boat Basin Pump Station and the commercial and residential establishments along West Side Road and Ocean Avenue. The pump station is a below-ground lift station feeding a force main along Ocean Avenue to the Ocean Avenue East Interceptor at Beach Avenue and Ocean Avenue.

Old Harbor Pump Station

The Old Harbor Pump Station is located on Water Street, adjacent to the New Shoreham Wastewater Treatment Facility. This is the main pump station for the collection system conveying all the wastewater flows via a 6-inch force main to the treatment facility. The pump station is an above-ground cast-in-place pump station consisting of a pump chamber and a wetwell chamber with a common concrete wall.

APPENDIX SF-2

**TOWN OF NEW SHOREHAM**  
**DEPARTMENTS AND SERVICES**

**BUILDING, ZONING, LAND USE AND PLANNING** - Building permits and inspections, land development

---

**FINANCE** - Financial accounting and management, payroll and benefits, water and sewer utility billing, tax assessment and collection

---

**FIRE AND RESCUE** (volunteer)

---

**HARBORS** - Management of the Town's two harbor areas Old Harbor and New Harbor (Great Salt Pond), including shellfish licensing and mooring field management

---

**GIS / IT** - Enterprise-wide development and management of the Town's Geographic Information System and information technology assets

---

**LIBRARY** – Island Free Library

---

**POLICE DEPARTMENT**

---

**PUBLIC WORKS** - Responsible for town facilities and roads

---

**RECREATION** - Year-round recreational programs, facilities and services for all ages in the community

---

**TAX ASSESSMENT** - Assessment of real estate, tangible property and motor vehicles, administration of personal exemptions, and production of the Town's annual tax rolls

---

---

**TAX COLLECTIONS** - Collection of property taxes and related fees

---

**TOWN CLERK** - Town Council actions, ordinances, licenses, land evidence recording, marriage licenses, birth, death and marriage records, voter registration, public records, probate court, elections and town meetings

---

**WASTEWATER MANAGEMENT** - On-site Wastewater Treatment System (OWTS) inspection and maintenance, public awareness

APPENDIX SF-3

**TOWN OF NEW SHOREHAM**

**BOARDS, COMMISSIONS AND COMMITTEES**

**BLOCK ISLAND HOUSING BOARD** - Provide affordable housing opportunities for year round residents

---

**BLOCK ISLAND LAND TRUST** - Preservation of open space for conservation, recreation, aquifer protection and agricultural uses

---

**BOARD OF ASSESSMENT REVIEW** - Review property assessment appeals

---

**BOARD OF ASSESSORS** - Assessment of real property, personal property and motor vehicle taxes

---

**BOARD OF CANVASSERS** - Voter registration and elections

---

**COMMISSION ON MOTOR VEHICLES FOR HIRE** - Set taxi rates and regulations

---

**CONSERVATION COMMISSION** - Advisory board addressing environmental issues and policies

---

**DEER TASK FORCE** - Recommend ways to reduce deer population to lower incidence of Lyme disease and babesiosis

---

**ELECTRIC UTILITY TASK GROUP** - Evaluate and pursue public ownership of the power source on the island

---

**EMERGENCY MANAGEMENT TASK FORCE** - Plan for and respond to emergency situations

---

**HARBORS COMMITTEE** - Oversee the marine operations of Old and New Harbors

---

---

**HISTORIC DISTRICT COMMISSION** - Review and approve developments within the local Historic District

---

**JUVENILE HEARING REVIEW BOARD** - Hear juvenile court cases

---

**LIBRARY BOARD OF TRUSTEES** - Oversee operations of the Island Free Library

---

**LARGE CAPITAL ASSET COMMITTEE** - Develop long-term strategy for use and maintenance of all town buildings and properties (Planning Board subcommittee)

---

**NEW SHOREHAM TOURISM COUNCIL** - Promote tourism and enhance its experience on Block Island

---

**NORTH LIGHT COMMISSION** - Oversee the operations and maintenance of the town owned North Lighthouse

---

**OLD HARBOR TASK FORCE** - Address planning issues in the Old Harbor area, and plan for public improvements

---

**PLANNING BOARD** - Review and approve all subdivisions and land development projects, undertake comprehensive planning

---

**RECREATION BOARD** - Oversee the programs and facilities of the Recreation Department

---

**SCHOOL COMMITTEE** - Oversee the School Department, develop annual budget for the Block Island school system

---

**SENIOR ADVISORY COMMITTEE** - Identify and promote senior activities

---

**SEWER DISTRICT COMMISSION** - Oversee management of the public sewage collection and treatment system, recommend sewer rates

---

**SHELLFISH COMMISSION** - Regulation and enforcement of commercial and private shellfishing in the Great Salt Pond

---

**WATER DISTRICT COMMISSION** - Oversee management of the public water distribution and treatment system, recommend water rates

---

**ZONING BOARD OF REVIEW** - Hear zoning applications, and appeals from decisions of the Building Official, Planning Board and Historic District Commission

---

**BLOCK ISLAND PREVENTION TASK FORCE** - Community based drug and alcohol abuse prevention task force (state funded)

---

**BLOCK ISLAND EARLY LEARNING CENTER BOARD OF DIRECTORS** - Oversee operations of the Block Island Early Learning Center

---

**BLOCK ISLAND HEALTH SERVICES BOARD OF DIRECTORS** - Oversee operations of the Block Island Medical Center

# MAP SF1 Public Facilities

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



- ID - Facility Name**
- 1 - Beach Ave Garage
  - 2 - Beach Pavilion
  - 3 - Block Island School
  - 4 - Coastguard Station
  - 5 - Davidson House
  - 6 - Doctor's House
  - 7 - Fire Station
  - 8 - Harbormaster's Shack
  - 9 - Library
  - 10 - Medical Center
  - 11 - North Light
  - 12 - Police Station
  - 13 - State Highway Garage
  - 14 - Thomas House
  - 15 - Town Hall
  - 16 - Transfer Station
  - 17 - Water Department
  - 18 - Water Pollution Control Facility

## Legend

- Public Facilities
- Town-Owned Properties
- Block Island Land Trust Fee Title
- Airport & Runway
- Major Roads
- Water



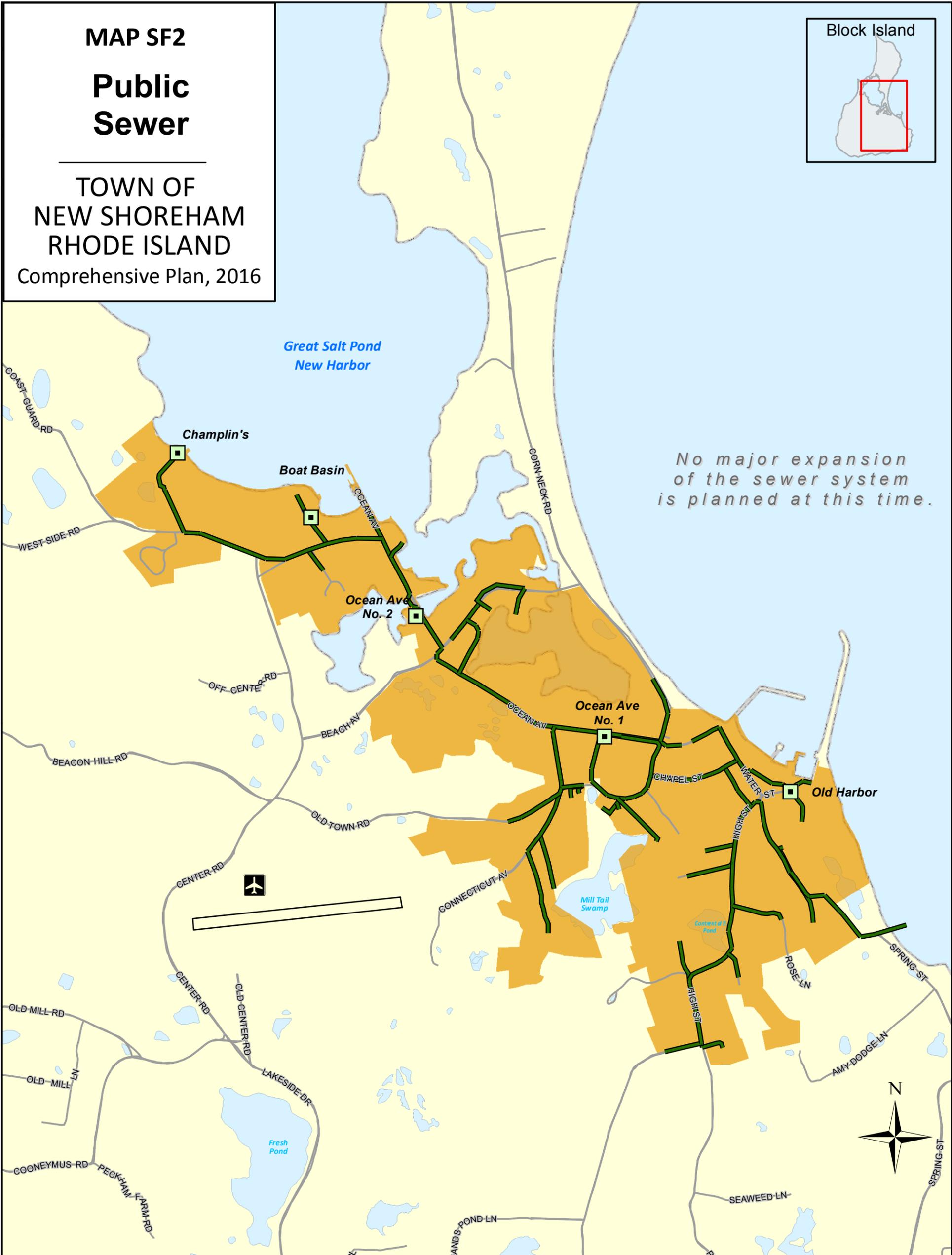
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9/20/2016; AR

# MAP SF2

# Public Sewer

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



*No major expansion of the sewer system is planned at this time.*

## Legend

- Sewer District
- Sewer Lines
- Town Pump Stations
- Airport & Runway
- Major Roads
- Water



**RIGIS**

2/3/2016; AR

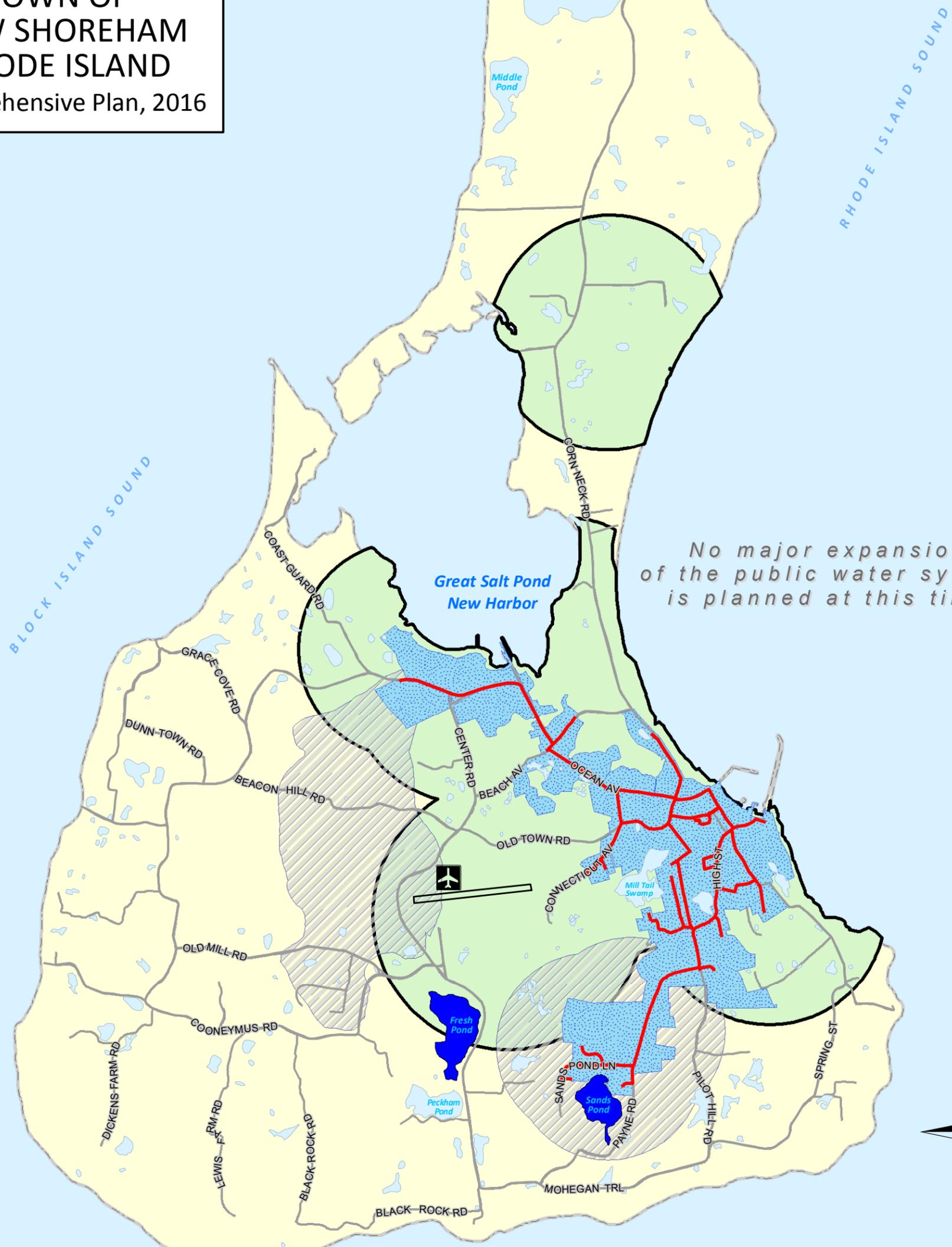
0 0.125 0.25 0.5 Miles

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# MAP SF3

# Water Supply

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



*No major expansion of the public water system is planned at this time.*



## Legend

-  Water Lines
-  Water District
-  Community Wellhead Protection Area
-  Non-community Wellhead Protection Area
-  Backup Surface Water Supply
-  Airport & Runway
-  Major Roads
-  Water

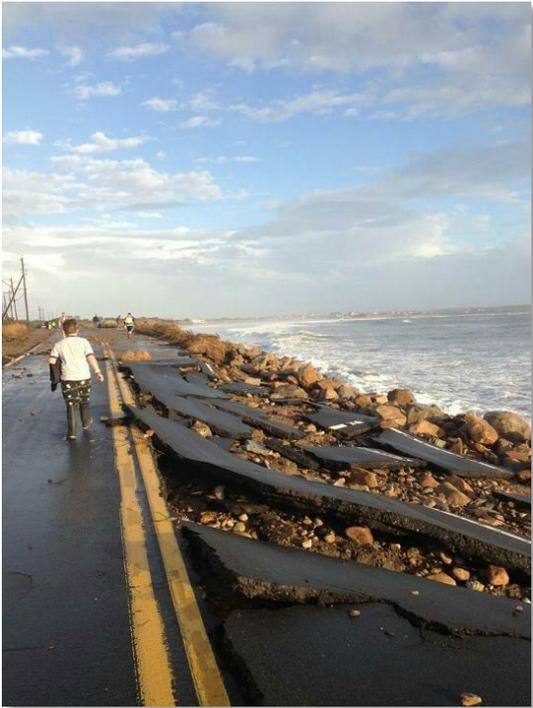


**RIGIS**

3/1/2016; AR



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# 10. NATURAL HAZARDS & CLIMATE CHANGE

New Shoreham 2016 Comprehensive Plan

## VISION

**New Shoreham will reduce the risk to people and property from natural hazards and climate change. Increased awareness of the threats, hazards and vulnerabilities will assist the town and its residents in preparedness efforts, implementing mitigation actions and long-term planning.**

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# NATURAL HAZARDS & CLIMATE CHANGE

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## SUPPORTING DOCUMENTS

Block Island Harbors Sea Level Rise Adaptation Study. TOWN OF NEW SHOREHAM, RI.  
AUGUST 1, 2013.

Town of New Shoreham Hazard Mitigation Plan, 2016 (Under RIEMA Review)

## OVERVIEW

Due to its geographical location, Block Island is vulnerable to hurricanes, coastal storms, storm surge and severe winter weather. Increasing vulnerability is the island's dependence on privately owned ferry and airline companies for transportation access to and from the mainland. Residents and the Town must prepare for future coastal storms on the scale of a Super Storm Sandy or greater, which caused significant damage to roads, structures and marine facilities due to wave action, storm induced erosion and flooding. The Town and residents must also plan for the long term impacts that a projected rising sea level will have on the island's road network, two harbors and the mainland harbor in Galilee.

The Natural Hazards & Climate Change element identifies the most likely and significant natural hazards that could affect Block Island, assesses the island's vulnerabilities to these hazards, and establishes goals, policies and actions designed to mitigate the risks from natural hazards and sea level rise.

This section also includes a number of maps which illustrate the island's vulnerable areas to the impacts of storms and climate change. For example, Map NHC 1 displays the flood hazard areas on Block Island, along with conserved lands. The map identifies significant public structures located within the flood zones including the beach pavilion, harbormaster's shack, North Light and the Coastguard Station.

To minimize future losses, communities need a clear understanding of how they are vulnerable to natural hazards and of strategies for increasing their resilience. The prospect of natural disasters including hurricanes, Nor-easters or severe winter storms impacting Block Island and accelerating natural shoreline erosion must be factored into the Town's planning process.

## Priority Natural Hazards Profiles and Potential Impacts

Block Island is most susceptible to coastal storms, hurricanes, severe winter weather and climate change. Storm surge from seasonal storms including hurricanes, Nor'easters and severe winter storms often results in coastal flooding and erosion. Impacts from high winds, heavy rains, ice, and lightning associated with a variety of seasonal storms also pose significant threats to Block Island.

### *Hurricanes*

A hurricane is a tropical cyclone with rotating winds of at least 74 mph and is usually accompanied by rain, thunder and lightning. These seasonal storms are spawned by low-pressure depressions moving over warm, tropical waters and typically occur over the Atlantic Ocean between June and October. Strong winds and heavy rainfall from hurricanes can pose a threat to life and property. When coupled with normal tides, storm surge can raise the mean water level substantially and also greatly contribute to coastal erosion.

New Shoreham's island location makes it particularly susceptible to hurricane related hazards and the island's small size means that the majority of properties and public infrastructure are vulnerable to hurricane impacts to some degree.

*NHC Map 2 Hurricane Inundation* illustrates that an estimated 117 structures are located within areas inundated by water as a result of a Category 4 hurricane surge and a number of public facilities could be at risk of flooding including the power company and state highway garage.

### *Severe Winter Storms*

Another regular natural hazard likely to occur at least annually on Block Island are severe winter storms. Block Island, similar to other coastal areas and islands, falls in the transitional precipitation zone increasing its vulnerability to ice and heavy snow conditions. Due in part to their large size, slow speed and little advance notice, Nor'easters and severe winter storms can at times be more destructive than hurricanes. Typically occurring between November and March, Nor'easters and severe winter weather can bring high winds, heavy prolonged precipitation and long periods of high surf. Blizzard conditions including sustained winds and ice could result in significant loss of power and damage to property. High winds associated with severe winter weather also have the potential to produce significant storm surge leading to the inundation of roadways and flooding of structures.

### *Storm Surge and Flooding*

Storm surge is the abnormal rise in water level caused by the wind and pressure forces of a hurricane, Nor'easter or severe winter weather. Storm surge can result in coastal erosion and minor flooding of low-lying areas nearby the Harbor areas, as well as causing island roads to be blocked or breached by water.

Storm surge most often occurs in and around Block Island's two harbors and impacts the island's roadway system that connects Old Harbor and New Harbor and commercial establishments with the outlying residential areas. The island's critical public safety facilities are vulnerable to the impacts of flooding. The

police station, fire station and rescue barn are all located on the same site accessed by roads (Ocean and Beach Avenues) subject to flooding.

The narrow northern neck of the island, Corn Neck Road, is especially vulnerable to being cut off from the rest of the island. This road serves as an evacuation route and is the only connection many homes on the northern end of the island have to the rest of the island. Recurring damage has occurred to Corn Neck Road as a result of storm surge impacts. During Super Storm Sandy in 2012, Corn Neck Road was significantly damaged for a length of 1,800 feet, isolating one business, restricting access to a number of residences and requiring travelers along the remainder of Corn Neck Road to use an alternate route (Ocean and Beach Avenues).

### *Climate Change and Sea Level Rise*

Climate change and sea level rise are not issues to be addressed in the distant future but something already present and recordable, requiring Block Island to take action now to mitigate potential impacts. The main issues surrounding climate change are rising global temperatures, and the resulting increase in weather extremes such as more frequent floods, droughts and rising sea levels. Climate change and sea level rise also has the potential for displacement of coastal populations and threatened infrastructure.

According to the Rhode Island Coastal Resources Management Council (CRMC), potential effects of a rise in sea level include:

- INCREASED EXTENT OF FLOOD DAMAGE AND GREATER VULNERABILITY TO STORM SURGES IN LOWER ELEVATIONS;
- GREATER RISK TO INFRASTRUCTURE—ROADS, SEWERS, STORMWATER FACILITIES, UTILITIES—IN AREAS MORE PRONE TO FLOODING;
- SALTWATER INTRUSION INTO AQUIFERS CONTAMINATING WATER SUPPLIES;
- HIGHER WATER TABLES RESULTING IN SUBSURFACE ISSUES SUCH AS WET BASEMENTS;
- HIGHER WATER TABLES POTENTIALLY AFFECTING LOW LYING ONSITE WASTEWATER TREATMENT SYSTEMS IN CLOSE PROXIMITY TO THE SHORELINE, ESPECIALLY WITHIN GREAT SALT POND
- A SIGNIFICANT INCREASE IN INCIDENCE OF EXTREME HIGH TIDE LEVELS;
- MORE COASTAL LANDS BECOMING SUSCEPTIBLE TO EROSION DUE TO INCREASED INTENSITY AND FREQUENCY OF STORMS;
- A NET LOSS OF COASTAL MARSHES THAT BECOME INUNDATED AT A GREATER RATE, RESULTING IN A LOSS OF SALT MARSH VEGETATION AND AN ALTERATION OF HABITAT TYPES.

Block Island is one of the most susceptible communities in the State to impacts from projected rises in sea level. Recent NOAA scenarios, which CRMC adopted in 2016 for planning purposes (CRMP Section 145), project 2 meters (6.6 feet) of sea level rise by 2100. One foot of sea level rise is expected by 2035. In 2013, the Town conducted a sea level rise adaptation study (Appendix D) which identified potential strategies the town can implement to prepare for and mitigate potential impacts of sea level rise. Inundation mapping

conducted as part of the study shows land, docks, and roadways surrounding the Great Salt Pond as being either inundated by sea level rise or more susceptible to flooding during extreme storm conditions as a result of sea level rise.

As a result of sea level rise, both hurricanes and severe winter storms will be more damaging to property on Block Island, and coastal flooding effects will be felt farther inland. For instance, storm surge heights will increase as sea level rises, resulting in many more properties being damaged or destroyed during a storm. Residential and commercial structures, roads, and bridges will be more prone to flooding. See *Map NHC 3 Sea Level Rise* which identifies the segments of roadways that could be inundated in the future as a result of sea level rise. The GIS analysis indicates that portions of Corn Neck Road (5 sections), Ocean Avenue (5 sections) and Beach Avenue (2 sections) are projected to be inundated as a result of 3 to 5 feet of sea level rise.

Sea level rise will also have an impact on saltwater marshes. See Map NHC4 SLAMM (Sea Level Affecting Marshes Model) for a visual of the potential impact on saltwater marshes at the 1-foot, 3-foot, and 5-foot sea level rise scenarios. SLAMM maps are available statewide at [http://www.crmc.ri.gov/maps/maps\\_slamm.html](http://www.crmc.ri.gov/maps/maps_slamm.html). For additional discussion see the Natural Resources Chapter.

## Mitigation Activities

*The Town is currently working on implementing a number of mitigation projects that will protect the island and its environment from the impacts of natural hazards and climate change.*

### **Erosion Mitigation Project at Closed Landfill**

Recent storms have eroded the beach and caused the closed landfill to be uncovered. This erosion has resulted in debris on the beach and entering the ocean. This issue, if not corrected, has the potential to cause significant negative impacts on surrounding natural resources. Design work has been completed to construct a revetment from the shoreline to minimize ongoing erosion. The Town has received a CDBG-DR grant that will cover a portion of the construction costs. Construction is expected to be completed in 2017.

### **Dune Protection**

Dunes provide an important natural barrier to the destructive forces of wind and waves and are our first line of defense against coastal storms and beach erosion. They absorb the impact of storm surge and high waves, preventing or delaying flooding of inland areas and damage to island structures. As such, dune restoration efforts are an important priority to the Town. Grasses are planted by the Town and its partners regularly and signs have been installed to remind people to remain off the dunes. The Town is also exploring the use of snow fencing to capture sand and allow dunes to rebuild in a cost-effective and sustainable manner.

Corn Neck Road is used by many daytrippers to access the Town Beach by foot from Old Harbor. In an effort to protect this important dune system, the Town is investigating options to install walkovers and stairs for the public to access the island's most heavily visited beach without compromising the dune grasses and other vegetation which stabilize the dunes.

## Goals, Policies & Implementation Actions

### GOAL NHCI: Reduce current and future risk of natural hazards and sea level rise to the built and natural environment

POLICY	ACTION	RESPONSIBLE PARTY	TIMEFRAME
NHCI.A. Plan for effects of projected sea level rise and flooding in the site selection and planning of parks, buildings and other public investments and direct improvements / town investments away from at risk areas	NHCI.A.1. Complete an assessment of the potential impacts to public structures and infrastructure resulting from projected sea-level rise	GIS; Engineering	Medium-term
	NHCI.A.2. Include in the capital improvement program projects required to mitigate threats to infrastructure and properties	Planning Board; Town Manager; Town Council; Facilities Manager	Ongoing
	NHCI.A.3. Evaluate current zoning and land use regulations related to future impacts from climate change and sea level rise	Planning Board	Medium-term
	NHCI.A.4. Conduct a planning study of Corn Neck Road to identify alternatives to mitigate future impacts from storms and climate change (T1.H.2.)	Building, Zoning, Land use & Planning; Planning Board; Town Manager; Town Council	Short-term
NHCI.B. Reduce the impact of flooding in vulnerable areas	NHCI.B.1. Work with the land trust and other stakeholder to identify and protect from development low-lying land vulnerable to impacts from flooding and sea level rise and areas adjacent to coastal wetlands susceptible to increased inundation due to sea level rise	Town Council; Town Manager; Land Trust; Planning Board; GIS; Conservation Commission	Ongoing
	NHCI.B.2. Install public walkover structures at the Town Beach to discourage traversing the fragile dunes (NR3.B.3.)	Facilities Manager; Town Manager; Building, Zoning, Land Use & Planning	Short-term
	NHCI.B.3. Implement green infrastructure stormwater management strategies to enhance infiltration and increase retention on town properties and road right-of-ways	Engineering, Building, Zoning, Land Use & Planning; Planning Board	Long-term

	NHC.I.B.4. Evaluate the potential impacts of sea-level rise on public sewer infrastructure and potential inundation of onsite wastewater treatment systems	Engineering; Planning; Sewer Department	Medium-term
	NHC.I.B.5. Investigate options to mitigate flooding along Beach and Ocean Avenues and its impacts on public safety buildings and services	Engineering; Building, Zoning, Land Use & Planning; Planning Board	Medium-term
NHCI.C. Maintain and implement a FEMA-approved Hazard Mitigation Plan	NHCI.C.1. Apply for funding to assist in implementing projects identified in the town's Hazard Mitigation Plan	Town Manager; Engineering; Building, Zoning, Land Use & Planning	Ongoing
	NHCI.C.2. Establish a committee responsible for reviewing progress on implementation of the Hazard Mitigation Plan and activities resulting in CRS credit and other mitigation projects related to potential impacts of sea level rise	Town Council	Medium-term
NHCI.D. Reduce the risk and/or length of power outages on the island	NHCI.D.1. Assess the feasibility of burying power lines particularly in scenic and high risk areas and when road construction is planned	Town Manager	Medium-term; Ongoing

**GOAL NHC2: Minimize risk to the public due to natural hazards through municipal preparedness and response**

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
NHC2.A. Improve the community’s awareness of threats through education and communication	NHC2.A.1. Establish a process to directly contact special populations such as those who are particularly vulnerable due to location, age or infirmity, to ensure their understanding of procedures prior to and following a storm event	Emergency Management; Public Safety; Medical Center; Information Technology; GIS	Short-term
	NHC2.A.2. Collaborate with agencies monitoring the impacts of climate change with efforts such as documenting high tide events, storm flooding impacts, bluff erosion and impacts on species	Emergency Management, Public Safety; Conservation Commission	Ongoing
NHC2.B. Participate in the Community Rating System and achieve reduced flood insurance costs to local property owners	NHC2.B.1. Undertake actions that qualify the town for advanced FEMA CRS scoring	Building, Zoning, Land Use & Planning; Town Manager	Short-term; Medium-term; Long-term; Ongoing

**Timeframes:** Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

# MAP NHC 1 Flood Hazard Areas

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



## Legend

### Digital Flood Insurance Rate Map (DFIRM)

-  1% Annual Chance Flood / 100 Year Flood (AE & VE)
-  .2% storm / 500 Year Flood
-  Conserved Open Space within Flood Hazard Areas
-  Town Facilities within Flood Hazard Areas



**RIGIS**

DFIRM Source: FEMA  
6/9/2016; AR

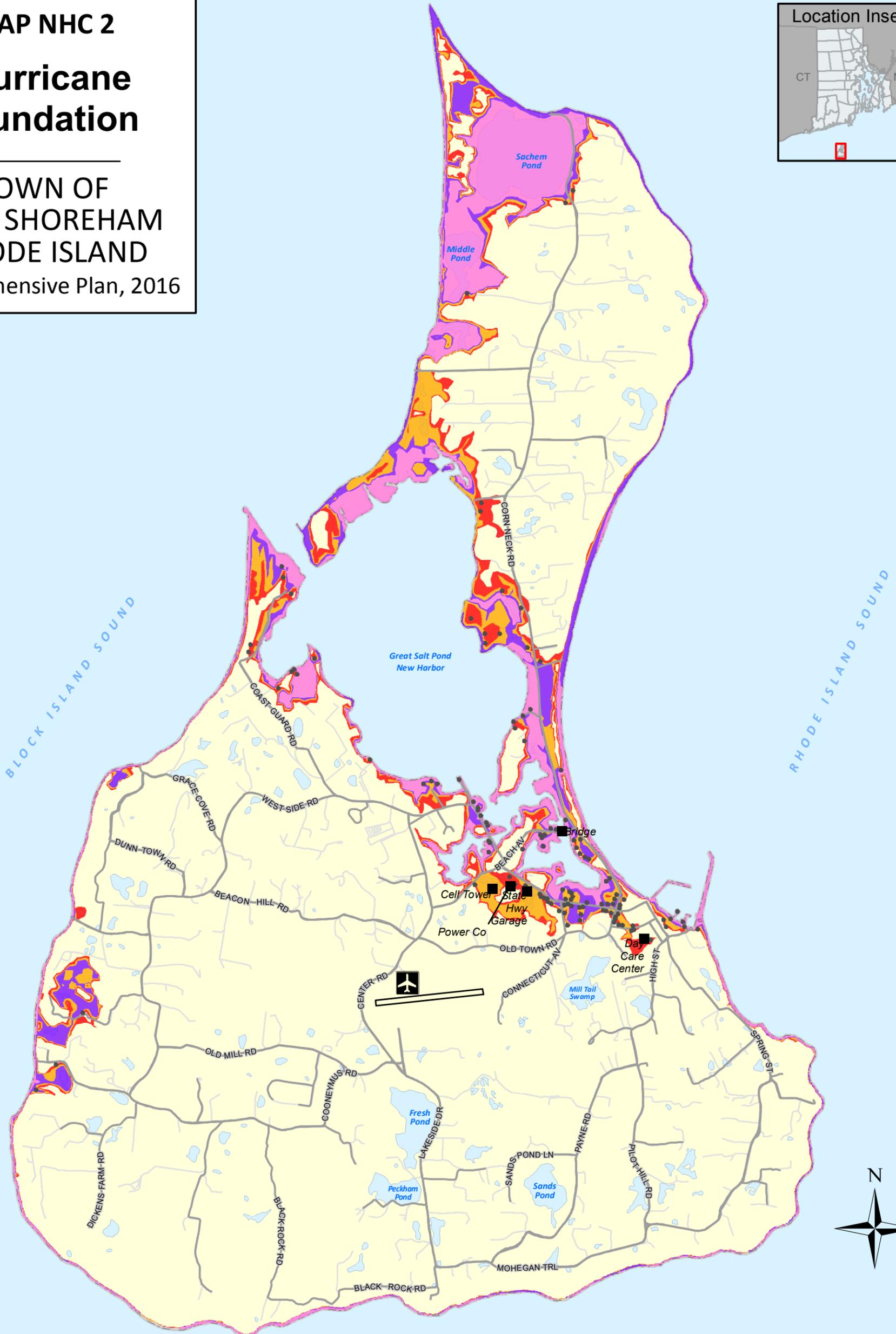
0 0.25 0.5 1 Miles

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# MAP NHC 2

# Hurricane Inundation

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



## Legend

### Area Inundated in the Event of a:

- Category 1 Hurricane
- Category 2 Hurricane
- Category 3 Hurricane
- Category 4 Hurricane

- Public Structure within Inundation Zones
- Structure within Inundation Zones

*There are an estimated 117 structures within the hurricane inundation zones.*



**RIGIS**

1/5/2016; AR

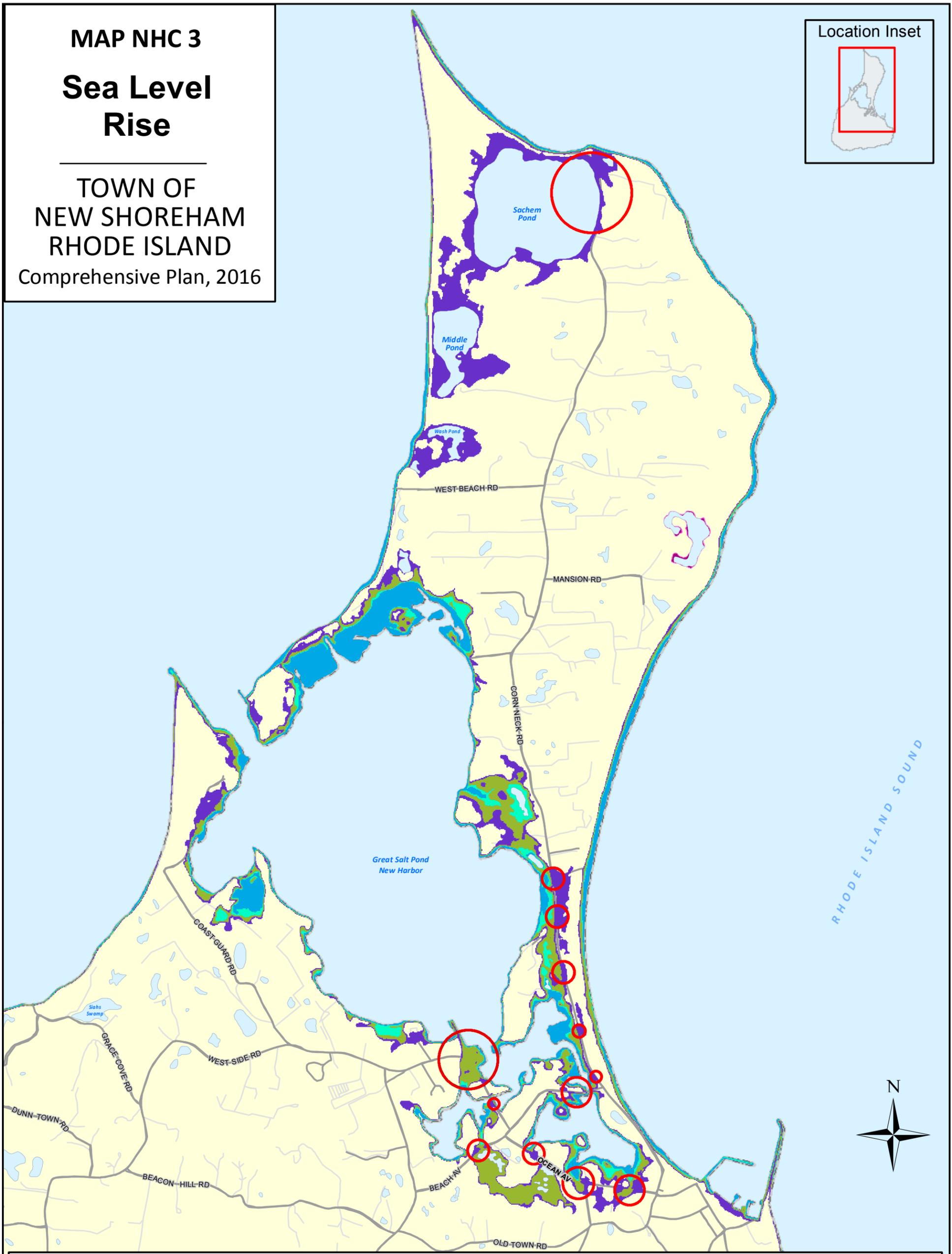


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# MAP NHC 3

## Sea Level Rise

TOWN OF  
NEW SHOREHAM  
RHODE ISLAND  
Comprehensive Plan, 2016



### Legend

- Sea Level Rise - Areas of Inundation**
- Mean Higher High Water
  - 1 Foot Sea Level Rise (Year 2035)
  - 3 Feet Sea Level Rise (Year 2065)
  - 5 Feet Sea Level Rise (Year 2085)

- Sea Level Rise - Areas of Inundation (with uncertain hydrologic connection)**
- Mean Higher High Water
  - 1 Foot
  - 3 Feet
  - 5 Feet
- Portion of Major Road Inundated**
- 

**RIGIS**

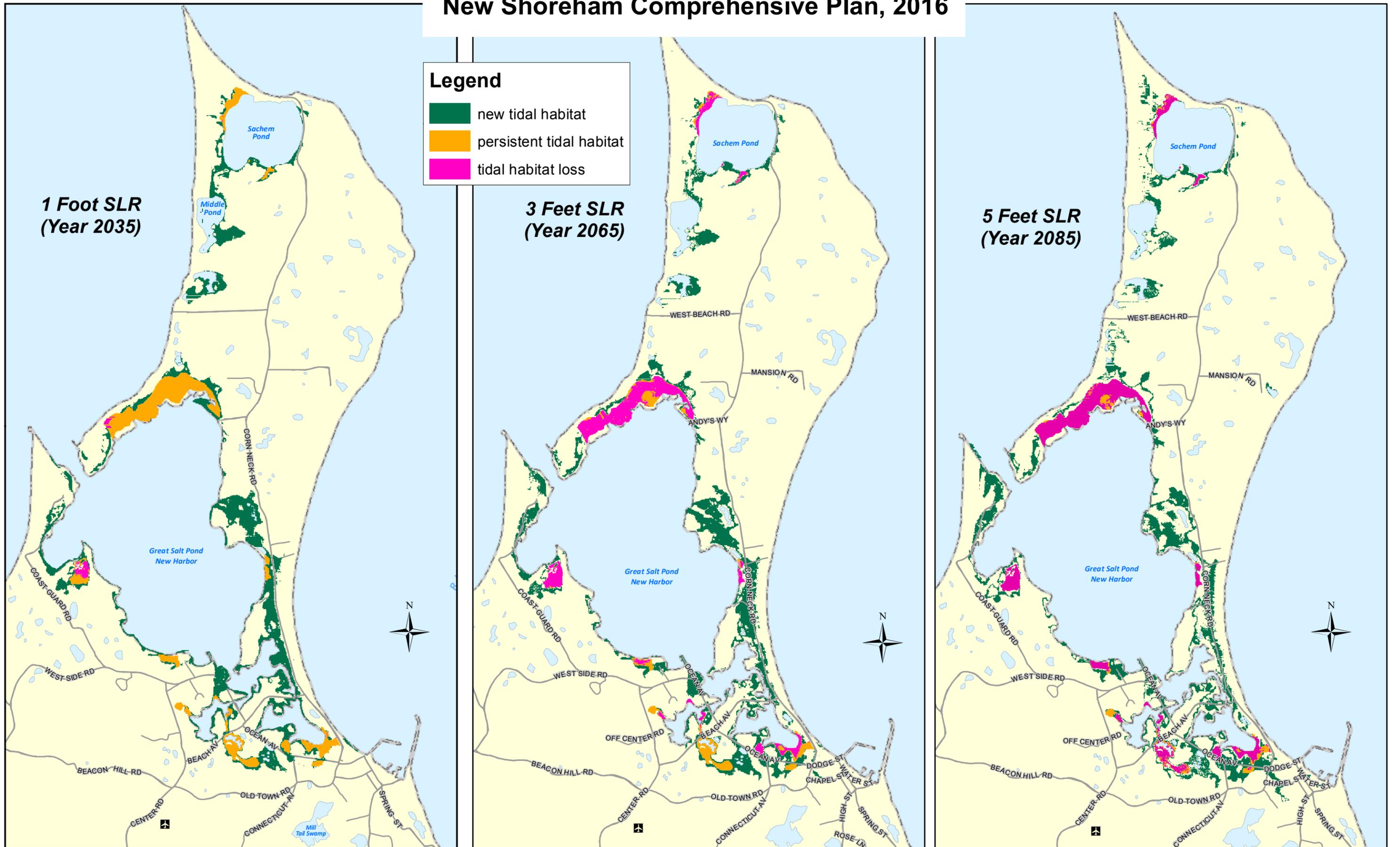
SLR Scenarios  
Data Source: RIDOP  
6/15/2016; AR



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# MAP NHC4 SLAMM - Saltwater Marsh - Potential Loss and Migration Due to Sea Level Rise

## New Shoreham Comprehensive Plan, 2016





## II. LAND USE

New Shoreham 2016 Comprehensive Plan

### VISION

The Town of New Shoreham will ensure that Block Island remains a desirable place to live by promoting sound growth and quality development which preserves and protects the natural environment, rural landscapes, cultural sites, and scenic beaches. Block Island's balance of land uses will support local sustainability and the economic needs of its residents.

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# LAND USE

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## SUPPORTING DOCUMENTS

Land Use 2025: Rhode Island State Land Use Policies and Plan, State Guide Plan Element 121, Rhode Island Department of Administration, Division of Planning, 2006.

### OVERVIEW

Land use planning is necessary to provide for the protection, appropriate development, use and management of our land and natural resources. Land is a precious and limited resource, particularly on Block Island, and thoughtful consideration must be given to its use. This element presents a description of Block Island's current land use regulations, demographic trends, and includes a build out analysis.

The Land Use Element and Future Land Use Map is a culmination of the goals and policies discussed in previous chapters of this Comprehensive Plan. Recommended future land uses, as illustrated through the Future Land Use Plan, were determined based upon the island's historic development pattern, the natural characteristics of the land, the transportation network, the availability of services and facilities, and the need to protect water quality, environmental quality, and the scenic quality of the Block Island.

## Demographics

Block Island's historical population trends are aligned with its economic activities. From its beginnings as a (non-native) settlement in the late 1700's and early 1800's when the year round residents numbered between 600 and 700 people, who subsisted mainly on farming, it grew to a bustling island supporting anywhere from 1,000 to 1,300 throughout the mid to late 1800's and well into the twentieth century, when the economy shifted to resort activity and fishing. During and following the Great Depression and the Hurricane of 1938, which forced the fishing fleet back to the mainland, the population began dropping significantly, a trend that continued after World War II. By 1960, only 486 people were counted, the lowest recorded Census for the island. After remaining stable for a few decades, the population began climbing, reaching over a thousand people again by 2000. This recent growth is a function of the island's desirability as a retirement and second home community, an offshoot of its tremendous popularity as a vacation location. The US Census counts for the island from 1910 to 2010 are contained in Table LU-1.

Year	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010
Population	1,314	1,038	1,029	848	732	486	489	620	836	1,010	1,051

The RI Statewide Planning Program generates population projections for all cities and towns based on historic trends. These figures are then adjusted to fit the results of a model for the entire state. Shown in Table LU-2 are two sets of figures for Block Island, both the “official” adjusted population for inclusion in the statewide totals of population projections, and the slightly higher “unadjusted” projections. In both cases, the assumption is that Block Island will continue to grow in population due to its desirability as a year-round community, or in many cases, as the primary (voting) location for people who have more than one residence.

<b>Year</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
<i>Official population estimate</i>	1,093	1,135	1,189	1,239	1,283	1,319
<i>Projected rate of population change</i>	4.00%	3.90%	4.70%	4.20%	3.60%	2.80%
<i>Unadjusted population estimate*</i>	1,116	1,169	1,223	1,279	1,336	1,394

*\*Unlike the official, adjusted projections, these projections do not total to the statewide projection and do not take individual components of demographic change or age/sex cohorts into account.*

A break-down by age of island residents as counted in both the 2000 and the 2010 Census is shown in Table LU-3. These figures indicate that there is a shift underway of older and retired persons replacing the very young, as well as the possible out-migration of young and young-middle aged workers.

<b>Age</b>	<b>2000</b>	<b>2010</b>
Under 5	63	36
5-19	137	133
20-34	163	126
35-54	353	330
55-74	230	329
75+	64	97
<b>TOTAL</b>	<b>1,010</b>	<b>1,051</b>

### **Seasonal Changes**

The population of Block Island cannot be accurately evaluated without an accounting of its dramatic seasonal variation, when part-time residents, visitors and vacationers descend on the island for the summer months. It is estimated that the number of people staying on the island, including seasonal residents, renters, guests in hotels, inns and guest houses, and those staying on boats, is over 10,000 on a summer overnight. This figure does not include the day trippers who arrive and leave on the ferries, which is estimated at 15,000 on a typical Saturday or Sunday.

Temporary residents are not counted in the Census, and the seasonal nature of most of the housing stock contributes to the lack of available and affordable year-round housing on the island (see Housing chapter). Aside from skewing the housing market, this influx represents the island’s major economic activities (see Economic Development chapter), while influencing the demand for services (see Community Services and Facilities chapter).

## LAND USE

### Existing Land Use and Pattern

Block Island has 6,076 acres within its land boundaries, excluding the Great Salt Pond and connecting coastal ponds. See Map LU I *Existing Land Use* for an illustration of existing land use as categorized by RIGIS, the State's Geographic Information System.

The existing land use pattern of Block Island can be categorized as having three distinct areas:

- **Village:** A compact mixed-use area, serviced by both public water and sewer, it includes the “downtown” associated with Old Harbor and the area between and around Old and New Harbors. Uses include retail and other businesses, tourism facilities, restaurants, accommodations including major hotels and inns, utilities and government, as well as residential. Year-round apartments and rooms for seasonal staff over stores are desirable future uses to provide a viable mixed-use area.
- **Transition:** A “buffer” zone which consists primarily of single family homes, but also includes some low-impact service establishments and smaller inns and B&B's. This area is partially serviced with town water. It has a lower density than the village, but is still compactly arranged.
- **Countryside:** The remainder of the island, dominated by openness, interspersed with low-density residential uses, and with compatible economic activities including agriculture, home occupations and B&B's. Of necessity, certain public facilities, including the airport, transfer station and the water treatment plant, are located in this area. However, the outstanding characteristic of this portion of the island is the extensive preserved open space and scenic values, which are critically important to the tourism-based economy, and the overall quality of life.

### Current Zoning

The Town zoning designations reinforce this general land use pattern described above, with commercial and mixed use districts confined to the village and harbor areas, a medium density residential district surrounding the village, and a uniform requirement for 120,000 square foot lots outside of that area (low density residential). As described, the village is made up of the areas zoned Old Harbor Commercial, New Harbor Commercial, Service Commercial, and Mixed Use. The transition comprises areas zoned Residential C, Mixed Use and Residential B. The countryside comprises the land zoned RA. See below for descriptions of zoning districts. Zoning districts and the historic district overlay are shown in *Map LU2 Zoning*.

### Residential

The large majority of the island's land area is within the *Residential A (RA) Zone*. The RA Zone comprises primarily rural land mostly remote from the village center and much of which is served by narrow lanes. It is intended that new development be integrated into the existing pattern of fields, walls, ponds and wetlands. A minimum of 120,000 square feet developable land area is required for newly created lots. *Permitted uses include: single family dwellings, accessory residential structures or apartments, accessory uses / home occupations, community residences, family day care homes, farming, rental rooms, and WECS. Additionally, a number of uses are allowed with a special use permit including but not limited to: governmental facilities, recreational facilities, affordable housing, waterfront uses, and stables.*

The *Residential B (RB) Zone* comprises land less remote from the village center than land zoned RA. It is intended to serve as a transition between the higher density of the village area and the low density of the countryside. A minimum of 60,000 square feet of developable lot area is required to create new lots within the RB zoning district. Uses permitted in the Residential B zone are the same as the Residential A zoning district.

The *Residential C (RC) Zone* comprises predominantly residential areas which include a significant component of hotels and inns. The minimum required lot area with sewer is 20,000 square feet and 40,000 square feet without sewer. In addition to the uses permitted in RA and RB zones, RC allows inns and hotels by special use permit.

The *Residential C / Mixed Use Zone (RC/M)* is predominately residential with a significant component of hotels and inns. It is intended that the zone provide for variety of residential uses and retail/residential mixed uses. The same lot size requirements as RC the two mixed use districts RCM , is intended primarily for residential uses, while the RC Mixed and the Mixed Zones emphasize commercial uses as part of the commercial and residential mix. In addition to the uses permitted in the RA, RB, and RC zones, RC/M allowed by special use permit commercial/residential mixed use and light assembly.

The *Mixed Use Zone (M)*, generally located between the two harbors, serves as a transition between the year-round and seasonal residential areas and the mixed residential area. It is intended that the area include a mix of residential dwellings with specially approved retail and service uses. The minimum required lot area with sewer is 20,000 square feet and 40,000 square feet without sewer. Some additional uses allowed in this zoning district include commercial fishing, waterfront uses, and bike rental.

### **Commercial**

The three commercial zones, Old Harbor Commercial (OHC), New Harbor Commercial (NHC) and Service Commercial (SC) are based on their village locations. Uses permitted by right in all three commercial districts include, but are not limited to: retail, restaurants, single family residential, and accessory apartments.

### **Other**

The Planned Development is a district allowing mixed uses, but focusing on affordable housing. It is allowed as a map amendment in specific zoning districts, approved by the Town Council following review of a site development plan.

The Public Education, Public Utility and Medical Center Zones are applied to the school property, the town owned transfer station site, and the medical center property, respectively.

### **Overlay Districts**

The Coastal Zone, not specifically mapped, is based on the location of coastal features such as bluffs, dunes or wetlands and includes the land area within 100 feet of that coastal feature or mean high water. It is subject to change following erosion or movement of coastal bluffs and dunes. It is a highly restrictive zone.

Also indicated on the map is the Historic District, an overlay district which governs development activities within Block Island's historic district. It generally corresponds to the zoning districts between and including the two harbors, including the RC and RC/Mixed Zones.

## Future Build-Out Analysis

*The following section is an assessment of the future residential development capacity of Block Island under current zoning regulations. This build-out analysis includes an assessment by zoning district of both undeveloped and underdeveloped parcels and estimates maximum subdivision potential. The analysis includes a summary table, chart, and map.*

### General Methodology

A spatial analysis was conducted on all 2,200+ parcels within the Town of New Shoreham.

#### GIS Data Layers Utilized

PARCEL BOUNDARIES  
 ADDRESSES - FIRE NUMBER POINT LAYER / E-911 POINT LAYER  
 ZONING DISTRICTS  
 CONSERVED LANDS  
 WETLANDS  
 OPEN WATER  
 ROADS & RIGHT OF WAYS  
 PUBLIC PROPERTIES - TOWN-OWNED LANDS / AIRPORT PARCELS

#### **The first goal of the analysis was to identify all undeveloped parcels with development potential.**

Utilizing the island wide parcel dataset, parcels with assigned fire numbers and those in the State's E-911 system were removed from this part of the analysis (making the assumption that properties with assigned addresses are developed). The following categories of parcels were also removed from the analysis since they have restricted or limited development potential:

- *Public properties*
- *Conserved properties*
- *Private roads, driveways, ROWs*
- *Encumbered by natural constraints (ie open water or wetlands)*

This resulted in a total parcel subset of 285 undeveloped and unrestricted lots.

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*Total Estimated Number of Undeveloped and Unrestricted Lots Island Wide: 285*

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An estimated total number of undeveloped and unrestricted lots was then determined for each zoning district (see below). A subdivision yield analysis was conducted on those parcels with large enough lot

size for potential future subdivisions. Combining the two figures provided a total estimated number of undeveloped and unrestricted lots factoring in maximum subdivision potential based upon current zoning regulations.

The second part of the analysis involved underdeveloped parcels with future subdivision potential. This analysis followed a very similar methodology as described above, however, already developed parcels (those with fire numbers/ addresses) were not eliminated and those parcels (285) that were included in the first part of the analysis (described above) were removed. This analysis provided an estimated number of developed properties with the potential for additional residential development based upon large lot size.

## Undeveloped and Unrestricted Parcels by Zoning District

### **Residential A Zone (RA)**

Within the RA zone there are **197** undeveloped and unrestricted lots. For all newly created lots, 120,000 square feet of developable area is required. 17 of the 197 lots are greater than 240,000 square feet in area. 5 of these lots are a majority protected open space with what appears to be the potential for one building lot. The 14 remaining parcels larger than 240,000 square feet have a potential total yield of 36 lots. Therefore, there is an estimated **219** (197-14+36) total potential undeveloped and unrestricted lots within the RA zone when factoring in subdivision potential.

### **Residential B Zone (RB)**

There are a total of **54** undeveloped and unrestricted lots within the RB Zone. For all newly created lots, 60,000 square feet of developable area is required. 8 lots of the 54 are larger than 120,000 square feet and therefore have the potential to be subdivided in the future. A subdivision yield analysis estimated those 8 lots have the potential to be subdivided into 19 lots. Therefore, there is an estimated **65** (54-8+19) total potential undeveloped and unrestricted lots within the RB zone when factoring in subdivision potential.

### **Residential C Zone (RC)**

There are 5 undeveloped and unrestricted lots within the RC zone. 1 of the 5 lots is greater than 40,000 square feet and therefore has the potential for a two-lot subdivision if connected to sewer. Therefore, there is an estimated **6** (5-1+2) total potential undeveloped and unrestricted lots within the RC zone when factoring in subdivision potential.

### **Residential C / Mixed-Use Zone (RCM)**

There are 5 undeveloped and unrestricted lots within the RCM zoning district. 1 lot is greater than 80,000 square feet and has to potential to be subdivided into a maximum of 4 lots if connected to sewer. Therefore, there is an estimated **8** (5-1+4) total potential undeveloped and unrestricted lots within the RCM zone when factoring in subdivision potential.

**Mixed Use Zone**

There are 15 undeveloped and unrestricted lots within the mixed use zone. 3 of these 15 lots are greater than 40,000 square feet in area and have the potential to become up to 10 individual lots if subdivided. Therefore, there is an estimated 22 (15-3+10) total potential undeveloped and unrestricted lots within the Mixed Use zone when factoring in subdivision potential. Note: this assumes all lots are on sewer in order to be permitted 20,000 square feet in lot area.

*COMMERCIAL DISTRICTS*

*Although not part of this residential build out analysis, it was determined that there are an estimated 9 undeveloped and potentially developable lots located within the Town's commercial zoning districts.*

**Underdeveloped and Unrestricted Parcels by Zoning District**

**The following analysis involves currently developed parcels with future subdivision potential due to lot sizes beyond current zoning regulations.**

**Residential A Zone (RA)**

All parcels greater than 240,000 square feet were selected within the RA zone. Undeveloped and unrestricted parcels (covered in analysis above) were removed from the analysis. Parcels with more than 2 assigned fire numbers if under 360,000 square feet in area and parcels with a substantial amount of protected open space and an assigned fire number were also removed from the subset. Those parcels with natural barriers to development as well as town-owned and airport parcels were also removed from the analysis.

The results indicate that there are an estimated 54 lots larger than 240,000 square feet with an estimated subdivision yield of 153 total parcels within the RA zone. Subtracting out the already developed house lots from the yield (54) provides an estimated 99 potential additional buildable lots from the existing 54 underdeveloped and unrestricted lots within the RA district.

**Residential B Zone (RB)**

Following a similar methodology as described above, it was determined that there are an estimated 24 underdeveloped and unrestricted lots greater than 120,000 square feet in area within the RB zoning district. 15 of these lots have between 120,000 and 179,999 square feet in lot area. However, 2 of these 15 lots have 2 assigned fire numbers and therefore, less potential for future subdivision. Therefore, 13 lots within the RA district could be subdivided in two-lots each, adding **13** additional building lots. There are 4 developed lots between 180,000 and 239,999 square feet in area with the potential for future subdivision. However, two of those lots have significant wetlands present. Therefore, it is estimated that these 4 lots may have a subdivision yield potential of **6** additional lots. Two developed lots have the maximum potential of 4 building lots each, and therefore, **6** additional buildable lots. Two developed lots have the maximum potential of 5-lot subdivisions and therefore, adding **8** potentially developable lots. The final underdeveloped lot of the 24 within the RB zone has the maximum potential of 7 total lots and therefore could add **6** additional developable lots. In summary, underdeveloped and unrestricted lots within the RB zoning district could add an estimated 39 buildable lots if subdivided under current zoning regulations.

**Residential C Zone (RC)**

There are a total of 8 underdeveloped and unrestricted lots within the RC Zone. Three of those lots have the maximum potential of adding one additional lot each. Three other lots have the maximum potential of adding 2 buildable lots each. One lot has a maximum potential of adding 3 additional buildable lots and the final lot has the maximum potential of adding 6 additional buildable lots. In summary, within the RC Zone, underdeveloped and unrestricted lots have the potential to add an estimated 18 additional buildable lots if subdivided under current zoning regulations.

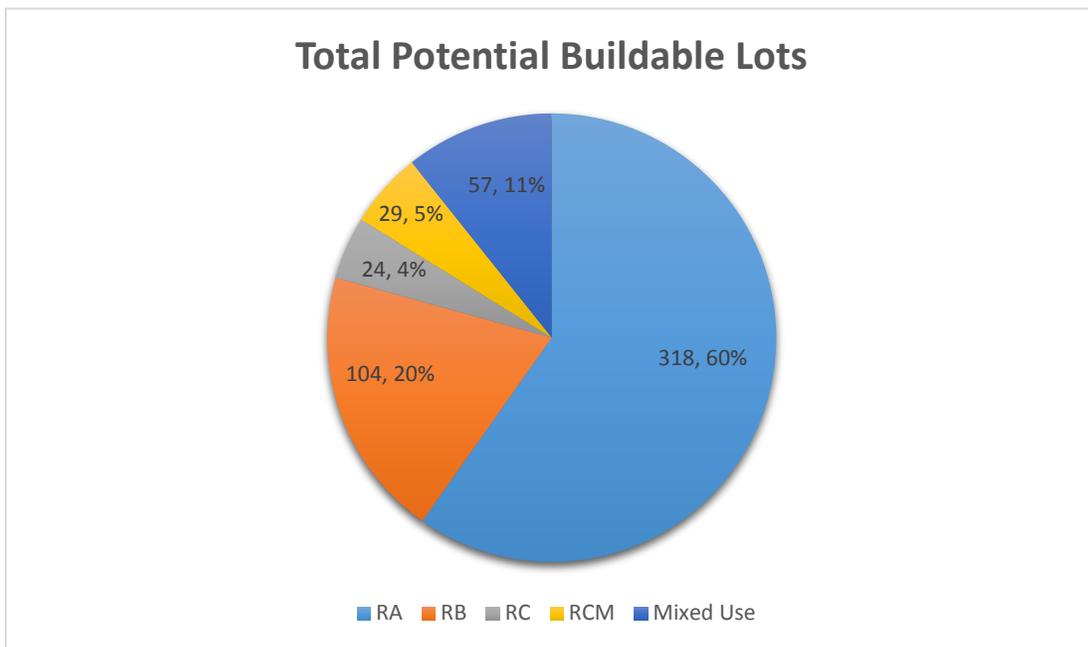
**Residential C / Mixed Use Zone (RCM)**

There are six potentially underdeveloped and unrestricted lots within the RCM zone. 2 of the 6 lots have the potential to add one additional buildable lot each. The 4 other underdeveloped and unrestricted lots have a maximum potential to add 19 additional buildable lots. Therefore, in total, an estimated 21 additional buildable lots could be created from the underdeveloped and unrestricted lots within the RCM zone. Note: this assumes all lots are on sewer in order to be permitted the 20,000 square foot lot area.

**Mixed Use Zone**

Utilizing aerial photography, substantially developed lots within the Mixed Use Zone were eliminated from the underdeveloped and unrestricted built out analysis. Developed lots with approximately 40,000 square feet without access to sewer were also eliminated. Results of the analysis indicate that there is an estimated 8 potentially underdeveloped lots within the Mixed Use Zone with future subdivision potential. 4 of the 8 lots have the maximum potential to add one buildable lot each. 2 lots has the potential to add two additional buildable lots each and the remaining two largest lots have a combined maximum subdivision potential of 27. In summary, an estimated 35 buildable lots could be created from the underdeveloped and unrestricted lots within the Mixed Use Zone under current zoning regulations. Note: this assumes all lots are on sewer in order to be permitted the 20,000 square foot lot area.

Block Island Buildout Analysis Summary Table				
Zoning District	Undeveloped / Unrestricted Parcels (A)	Undeveloped / Unrestricted Parcels plus subdivision yield (B)	Subdivision yield from Underdeveloped / Unrestricted (C)	Total Potential Buildable Lots (B+C)
RA	197	219	99	318
RB	54	65	39	104
RC	5	6	18	24
RCM	5	8	21	29
Mixed Use	15	22	35	57
<b>Total</b>	<b>276</b>	<b>320</b>	<b>212</b>	<b>532</b>



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*Total Future Population Estimated at Build-Out: 1,389*

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Average household size on Block Island is 2.07 according to American Community Survey, 2013. Therefore, if 532 single family homes are constructed on Block Island, the Town could expect an additional population of 1,101. However, if the current ratio of seasonal housing units continues in the future (69.3%), this figure would equate to an estimated additional 338 year-round residents.

New Shoreham Seasonal Housing Units		
Total # 2010 Housing Units	Total # 2010 Seasonal Housing Units	2010 Seasonal Housing Units, as % of Total Housing Units
1,808	1253	69.3%
<i>2010 US Census</i>		

Current year-round population for New Shoreham, according to US Census 2010, is 1,051. Therefore, the **total future year-round population estimated at build-out is 1,389.**

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*Year by which Residential Build-Out is Anticipated: 2069*

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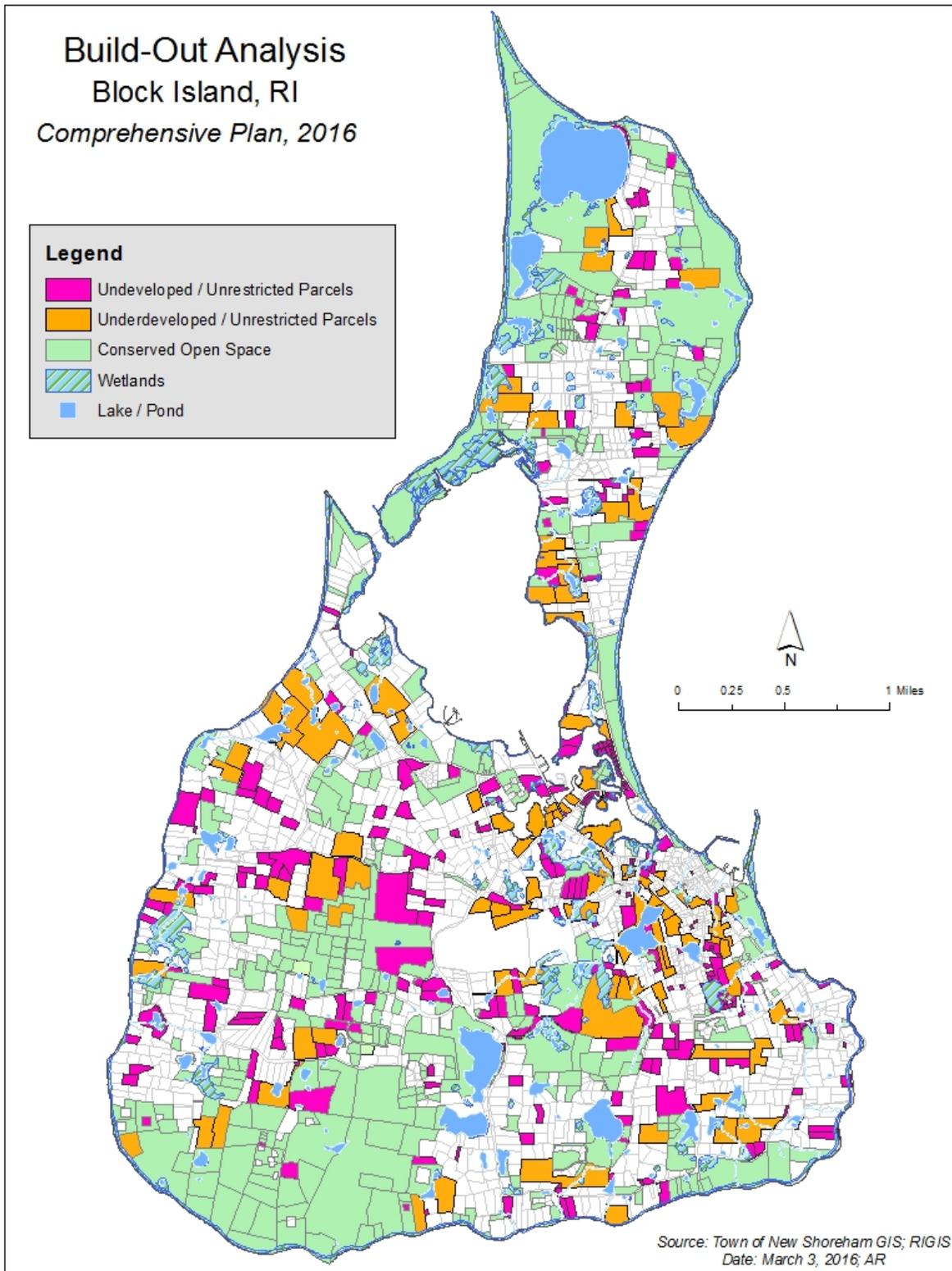
Based on building permit data, the average annual number of new single family dwellings on Block Island between the years 2006 and 2015 was ten (note: this figure does not include replacement dwellings which are tear down and rebuilds on same lot). Therefore, **it is estimated that build-out could occur in 53 years, which would be the year 2069.**

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*Maintaining Affordable Housing Ratio*

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In order to meet affordable housing needs on the island and maintain the town's 10% low-and-moderate income housing percentage, mechanisms and must be in place to ensure that as new development / build-out occurs, affordable housing units are also being developed.



## THE FUTURE LAND USE MAP

*Map LU3 Future Land Use* is the visual depiction of the community's desires for types, patterns, and intensities of development. It is a policy statement directing municipal decision-makers as to what types of land uses are desired in each area and setting a vision for the municipality's future growth over the next 20-years. The Future Land Use Map serves as the underpinning for local zoning regulations that legally regulate development in the community.

This Comprehensive Plan update includes a comprehensive update to New Shoreham's Future Land Use Map. The current Future Land Use Map included only three broad categories: village, transition, and countryside. The updated Future Land Use Map includes the categories described below, meets current State requirements and is consistent with CRMC Water Type Classifications. **There are no identified inconsistencies between the Future Land Use Map and the Zoning Map.**

### *A Description of Future Land Use Designations*

The following sections describe the future land use designations as illustrated on Map LU3 Future Land Use including general uses that are desired within each designation and the average density or range of residential densities that are to be permitted.

#### *Low Density Residential*

The majority of the lands on Block Island are categorized as *low density residential*. Scenic landscapes of rural fields, narrow lanes, stonewalls, ponds, and coastal views provide the setting for shingled cottages and farmhouses. New residential development in the low density residential designation should blend into this scenic landscape and be accommodated on lots of a minimum of 120,000 square feet.

#### *Medium Low Density Residential*

The *medium low density residential* designation comprises rural land less remote from the village center than land designated as low density residential. Residential development within this designation should also be accessed from narrow lanes and be integrated into the rural landscape of fields, stonewalls, ponds and wetlands. Density within the median low density residential designation should be a minimum of 60,000 square foot lots.

#### *Medium Density Residential*

The *medium density residential* designation should comprise mostly residential land uses ranging in density from 20,000 square feet to 40,000 square feet depending upon the availability of public water and sewer.

State Comprehensive Plan requirements recommend those areas identified as “Sewered Urban Development” on Figure 121-02(1) of the State’s Land Use 2025 Plan must have a minimum of 5 dwelling units per acre. However, New Shoreham does not feel that density is appropriate for Block Island given the location and importance of drinking water resources, concern to maintain high water quality of the Great Salt Pond, and the desire to preserve the rural character of the island. Current regulations permit a minimum lot size of 20,000 square feet if connected to sewer in the higher density zones, double the density (40,000 square feet minimum lot size) if not connected to the public sewer system. The Town does not have a desire to change the current zoning to permit higher densities by right in those zones.

### *Mixed Use*

The *mixed use* designation should include a combination of residential dwellings and appropriate retail and service uses. New residential development within the mixed use designation should range from 20,000 to 40,000 square feet minimum lot size depending upon services available and natural resources present.

### *Commercial*

The *commercial* designation is located adjacent to Old Harbor and New Harbor and therefore land uses should support marine-related activities. Within the village and lands connecting the two harbors permitted land uses must accommodate the service and utility needs of the island. New residential development within the commercial designation should occur on 20,000 square foot lots.

### *Public*

The *public* land use category includes land holdings of local, state, and federal governments or their agencies. The purpose of this category is to recognize the extent and locations of public land holdings and how they interact with adjacent land uses.

### *Recreation*

Publicly held land for recreation purposes including parks, ballfields (Heinz Field) and beaches have been designated as *recreation* on the Future Land Use Map.

### *Conserved Open Space*

Publicly and privately held lands for *conservation* are depicted in dark green on the Future Land Use Map.

### *Airport*

New Shoreham is host to the Block Island State Airport which is owned and operated by the Rhode Island Airport Corporation (RIAC). The airport property covers an area of approximately 136 acres in the center of the island. All parcels owned by the airport have been designated as *Airport* on the Future Land Use Map.

In Rhode Island, municipalities are legally obligated to establish and enforce appropriate airport land use compatibility planning. In 2013, RIAC prepared the “Rhode Island Airport Land Use Compatibility Guidebook,” to assist local officials with the tools to plan for and enforce land uses that are compatible with their local airports. In conjunction with the recommendations of RIAC’s Aviation Systems Plan, the Town should designate an Airport Hazard Area Overlay District. The purpose of the district is to regulate the types of land uses and the height of buildings and trees in the district to avoid creating airport hazards.

## Special Areas & Policies

### *Harbors*

#### **THE FUTURE WELLBEING OF THE ISLAND DEPENDS ON THE WISE AND SUSTAINABLE USE OF ITS TWO HARBORS.**

The marine and transportation activities associated with each harbor are somewhat different. Old Harbor is best suited to serve as the island’s principal transportation center with docks, parking and storage areas capable of supporting large capacity stern-loading ferries carrying passengers, vehicles and freight. Another area of the Old Harbor, the Inner Basin, is suited for a limited number of commercial fishing and sport fishing craft.

New Harbor in the Great Salt Pond is the third most popular yacht harbor in the northeast (after Newport and Marblehead, Massachusetts). New Harbor is a major economic asset not only for Block Island but for Rhode Island tourism generally. Uses can put stress on the pond’s water quality and ecosystem with its potential for pollution from boats. Protecting the water quality of the Great Salt Pond, a critical natural and economic resource (see Great Salt Pond chapter), is a major priority of the Town.

The intention of the Town has been and continues to be that New Harbor be committed to recreational boating and limited ferry use (passenger only), as well as to commercial fishing, shell-fishing and aquaculture uses, but not to other commercial activities such as ferries carrying vehicles and freight, or boat manufacture and major repair. It is also the intention of the Town to control the level of recreational boating capacity in the pond by limiting mooring and significant dock expansion.

### *Village*

The town would like to encourage mixed-use development similar to traditional New England villages by grouping complementary land use activities. An objective of the Town is to combine uses in the village and surrounding areas in ways that create a built environment with better character, more social interaction and diversity in housing options. Mixed-use development in and around the village can also promote a reduction in auto dependence and infrastructure costs, and help to preserve remaining undeveloped land on the island.

As described in the Transportation element, there is considerable congestion in the downtown area in the summer. Over the years there have been various ideas for better managing this congestion of motor vehicles, mopeds, bicycles and pedestrians. Still needed are more detailed design plans for the village including an underground utility plan, a village parking plan and an overall circulation plan that includes safe

pedestrian access. This work could be spearheaded by the Old Harbor Task Force, a town committee that works on the physical issues of Old Harbor.

### **Land Conservation and Stewardship**

The use of the island's limited land resources should be balanced so that a substantial share of the island's land, at least half of it, will remain permanently in conservation, open space or agricultural use. As of 2015, with 2,210 acres of deeded protected land and 597 acres of water bodies and wetlands, over 46% of the land on the island is permanently protected from development. Reaching a goal of protecting 50% of the land area on the island is consistent with land needs for housing and infrastructure, while ensuring that critical resources, including the island's drinking water supply and the areas of major habitat importance, are protected.

The principal land use goal of this plan, however, is that the actual amount of protected land on the island be not just a given percentage, but that it reflect the need to preserve its cultural heritage as well as protect all of its critical natural resources. A more complete description of the protected lands and the agencies and organizations involved is contained in the Recreation and Conserved Areas chapter.

As the island closes in on, or even exceeds, the 50% protected land goal, maintaining all of the open space and conservation land to the highest standards is the longer term land use goal. The following activities undertaken by a number of island groups, including the Block Island Conservancy, the Block Island Land Trust and the island office of The Nature Conservancy, are critical in the coming years, and for the foreseeable future:

1. MONITORING EASEMENT AREAS SO THAT RESTRICTIONS ARE UPHELD
2. ENSURING THAT MANAGEMENT PLANS ARE FOLLOWED
3. PROTECTING AREAS FROM ENCROACHMENT OR ILLICIT ACTIVITIES (DUMPING, VEGETATION AND SOIL REMOVAL)
4. MANAGING SPECIES AND HABITAT AREAS INCLUDING INVASIVES
5. KEEPING TRAILS CLEARED AND MARKED
6. MAINTAINING FIELDS AND STONE WALLS

### *New Development and the Protection of Community Character*

It is the town's goal to maintain and strengthen the unique character, long-term livability and appeal of Block Island. In order to achieve this goal, the town should protect and promote high quality and appropriate design and construction of all land development projects and subdivisions.

Block Island is sure to see more residential development in the future. The island has done much to lessen the impact on the landscape of new very large and out of scale houses by enacting limits on overall footprint, height and massing. However, it does not regulate design outside of the Historic Overlay District. A design

booklet for new residential development to complement the zoning ordinance amendments enacted in 2008 that control size and massing of new residential structures would guide new homeowners and builders in the design and construction of houses that fit the island's traditional style.

The regulations in place for Conservation-style subdivisions (Flexible Design) also advances the goal of protection of community character. Conservation Development is a site planning technique which bases the layout of building lots and structures on the natural characteristics of the land and reduces lot sizes so that the remaining land can be used for recreation, open space and/or the preservation of environmentally, historically, and culturally sensitive features and/or structures. Conservation-style subdivisions, if designed properly, can achieve the goal of buffering new development from intrusion upon Block Island's scenic vistas. There is a desire to review the current flexible design regulations, however, this subdivision option should conceptually remain and be encouraged for all new subdivisions proposed on Block Island.

### **Sea Level Rise**

The impact of sea level rise and storm surges (see Natural Hazards & Climate Change chapter) must also be accounted for in future land use decisions. As stated in the Block Island Harbors Sea Level Rise Adaptation Study, completed in August 2013:

*As a result of the dramatic impacts depicted by the sea level rise maps, the Town should evaluate its land use and building regulations to consider future development and redevelopment in the most critically impacted inundation areas.*

## Goals, Policies & Implementation Actions

**GOAL LUI: Achieve a balanced and harmonious development pattern that preserves Block Island’s environmental and aesthetic quality and promotes economic vitality and overall livability**

<u>POLICY</u>	<u>ACTION</u>	<u>RESPONSIBLE PARTY</u>	<u>TIMEFRAME</u>
LUI.A. Maintain existing land use pattern consisting of village, transition and countryside	<p>LUI.A.1. Review and amend the zoning ordinance and the subdivision regulations as needed to ensure compatibility with the desired land use pattern</p> <ol style="list-style-type: none"> <li>1. Higher density development should be restricted to the compact village and transition areas that have access to public water and sewer</li> <li>2. Require residential development in the countryside to occur in a density and manner that is sensitive to, and complimentary of, the island’s traditional landscape</li> </ol>	Planning Board; Town Council	Short-term
LUI.B. Direct growth to appropriate areas	LUI.B.1. Evaluate results of build out analysis and make adjustments in policy and regulations as desired to meet the goals identified in this Comp Plan	Planning Board	Short-term
LUI.C. Ensure that municipal land use regulations are consistent with the goals and policies set forth within this comprehensive plan	LUI.C.1. Identify amendments necessary to local subdivision regulations to ensure development occurs in a manner consistent with the goals of this Comp Plan	Planning Board	Short-term
	LUI.C.2. Review Flexible Subdivision Design (conservation-style) to ensure regulations will result in desired development and open space set aside outcomes	Planning Board; Town Council	Short-term

	LUI.C.3. Undertake a review of the Planned Development Regulations, with amendments to extend its application to all of the commercial and mixed use districts and to focus on creative mixed-use development as well as affordable housing	Planning Board; Town Council	Medium-term
LUI.D. Ensure that a significant amount of land is designated and zoned for commercial activity to support residents' needs for services and economic opportunity	LUI.D.1. Undertake a review of all mixed use and commercial zones with possible amendments to their definitions, allowed uses, dimensional requirements and district boundaries	Planning Board; Town Council	Short-term
LUI.E. Ensure harbors and their related infrastructure and land-side support areas are reserved for uses that rely on such coastal access, such as fishing, aquaculture, marine industry and transportation			
LU1.F. Support Block Island State Airport as a critical transportation facility by protecting navigable airspace around it	Amend zoning ordinance to be consistent with applicable state and federal requirements pertaining to airport hazards	Planning Board; Town Council	Short-term
LU1.G. Promote a walkable and thriving mixed-use village district	LUI.G.1. Prepare and implement a Village Design Plan that promotes the historic and walkable qualities of this dense mixed-use center	Planning; Planning Board; Historic District Commission; Old Harbor Task Force	Medium-term
	LUI.G.2. Review regulations for parking and pedestrian access in both the zoning and subdivision regulations, and consider amendments to allow flexibility in parking requirements and to strengthen provisions for sidewalks and pathways as part of new development in the village and transitional areas	Planning; Planning Board; Historic District Commission; Old Harbor Task Force	Medium-term

**GOAL LU2: Protect and enhance the natural scenic beauty and heritage of our coastal community**

POLICY	ACTION	RESPONSIBLE PARTY	TIMEFRAME
LU2.A. Promote design excellence and historic preservation	LU2.A.1. Codify strong historic district design regulations	Historic District Commission; Town Council	Medium-term
	LU2.A.2. Develop a photo design booklet to guide in the construction and siting of new development island-wide and encourage architecture consistent with the island's traditional style	Planning; Planning Board; Historic District Commission	Medium-term
LU2.B. Protect culturally important resources either through land acquisition, easement or appropriate design when development occurs nearby			
LU2.C. Maintain an active public open space acquisition program and support partner organizations in their open space acquisition efforts	LU2.C.1. Identify scenic and/or ecologically significant lands that have yet to be protected	BILT	Medium-term
	LU2.C.2. Establish a criteria for prioritizing the acquisition of conservation land	BILT; Town Council; Planning Board	Medium-term

**Timeframes:** Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

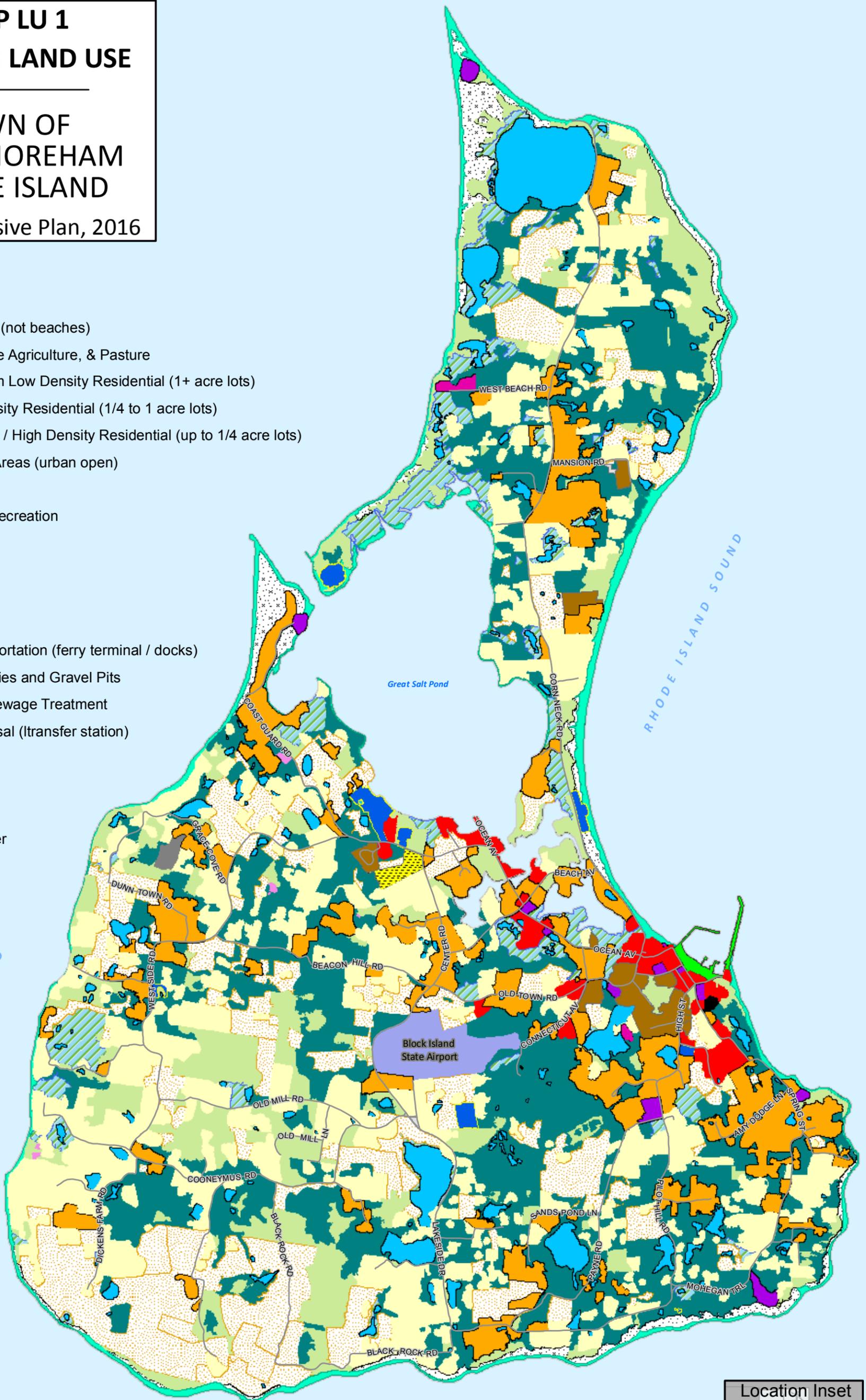
# MAP LU 1 EXISTING LAND USE

## TOWN OF NEW SHOREHAM RHODE ISLAND

Comprehensive Plan, 2016

### Legend

-  Beaches
-  Sandy Areas (not beaches)
-  Cropland, Idle Agriculture, & Pasture
-  Low / Medium Low Density Residential (1+ acre lots)
-  Medium Density Residential (1/4 to 1 acre lots)
-  Medium High / High Density Residential (up to 1/4 acre lots)
-  Transitional Areas (urban open)
-  Vacant Land
-  Developed Recreation
-  Institutional
-  Cemeteries
-  Commercial
-  Airports
-  Other Transportation (ferry terminal / docks)
-  Mines, Quarries and Gravel Pits
-  Water and Sewage Treatment
-  Waste Disposal (ltransfer station)
-  Brushland
-  Forest
-  Wetland
-  Surface Water



7/13/2016, AR

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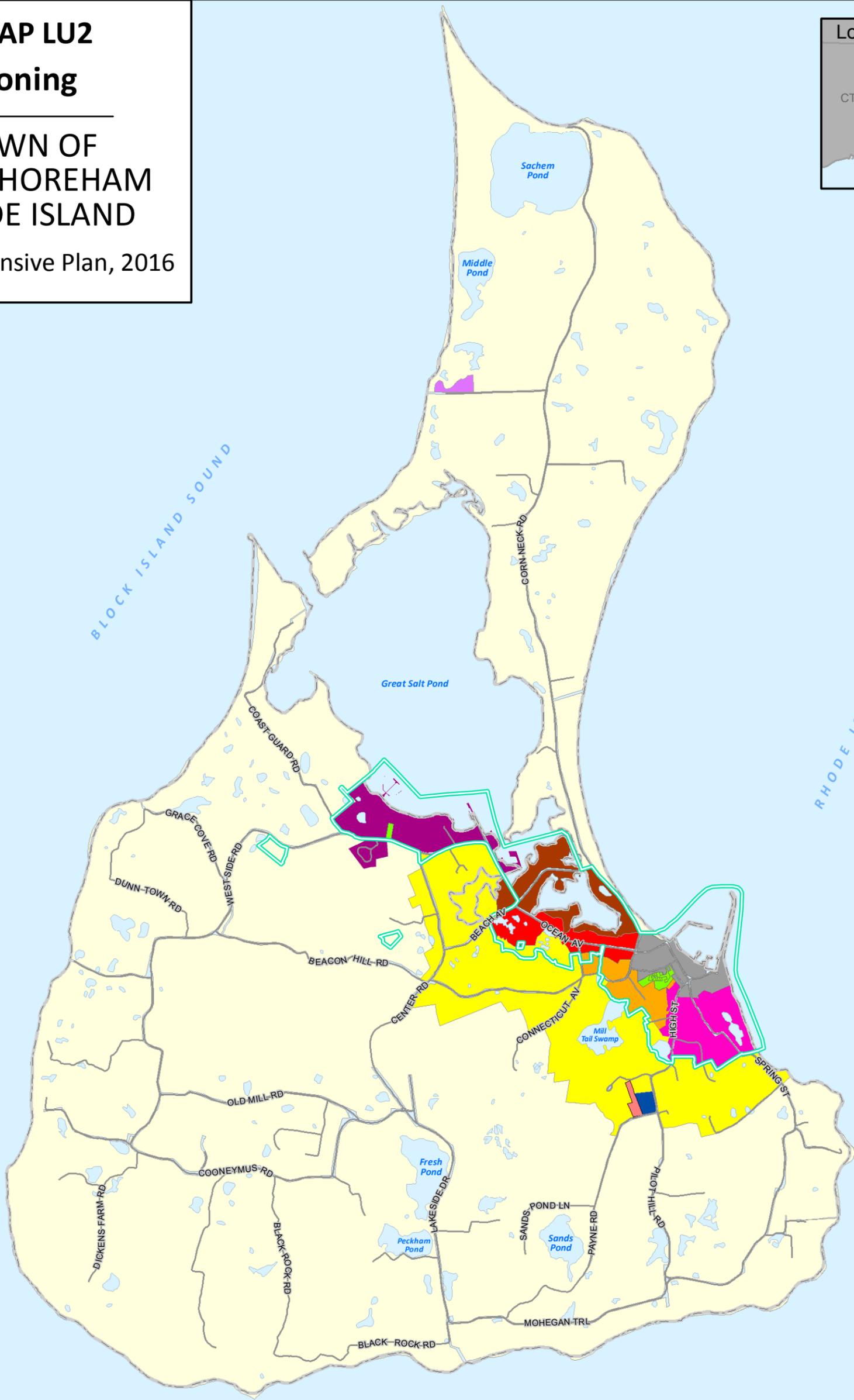


# MAP LU2

## Zoning

### TOWN OF NEW SHOREHAM RHODE ISLAND

Comprehensive Plan, 2016



#### Map Legend

##### Zoning Districts

	Residential A		Service Commercial
	Residential B		Medical Center
	Residential C		Planned Development
	Residential C / Mixed		Public Utility
	Mixed Use		Public Education
	New Harbor Commercial		Historic District Overlay
	Old Harbor Commercial		



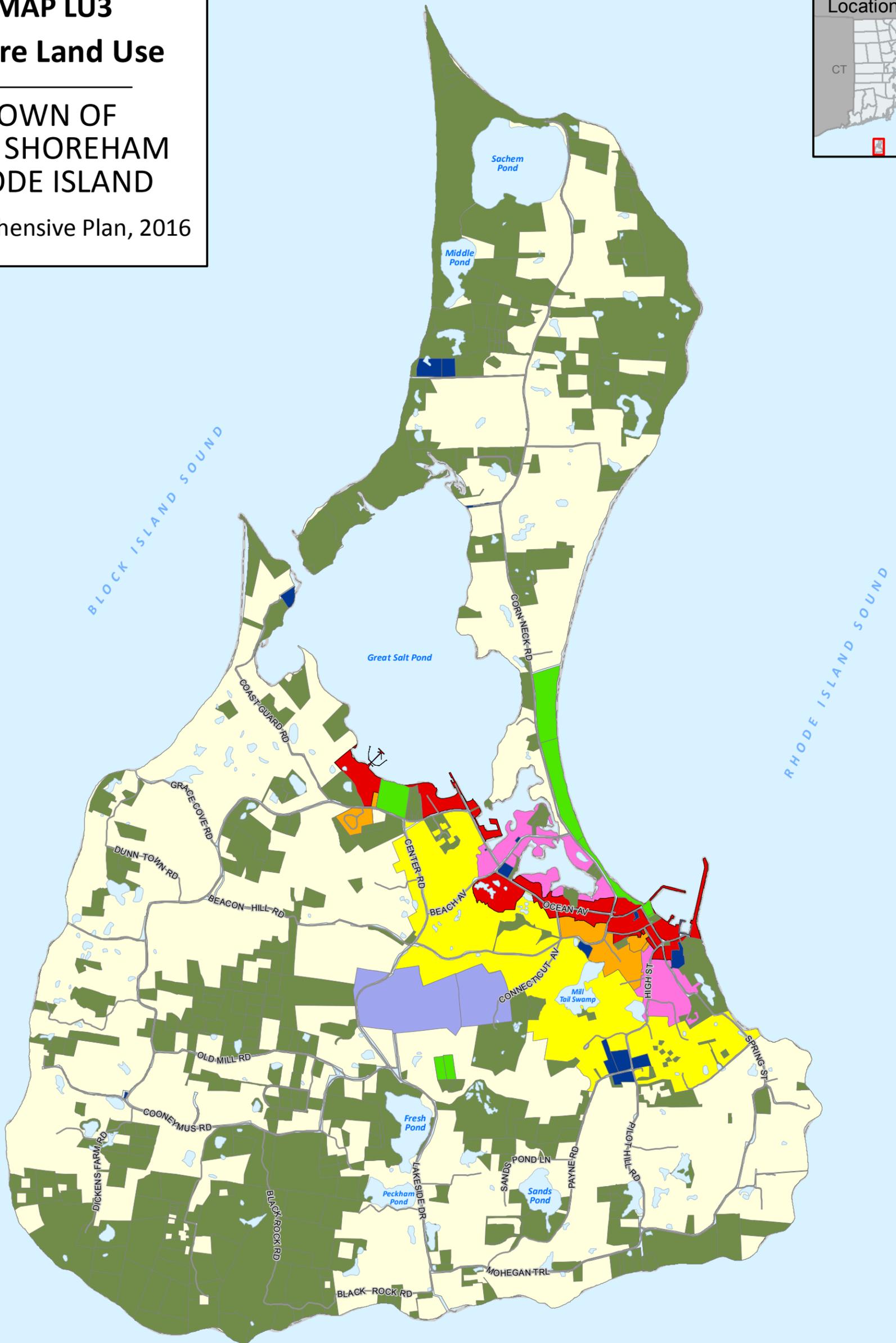
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# MAP LU3 Future Land Use

## TOWN OF NEW SHOREHAM RHODE ISLAND

Comprehensive Plan, 2016



### Map Legend

- |   |  |
|---|--|
|  Low Density Residential        |  Airport              |
|  Medium Low Density Residential |  Recreation           |
|  Medium Density Residential     |  Conserved Open Space |
|  Mixed Use                      |  |
|  Commercial                     |  |
|  Public                         |  |



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# 12. IMPLEMENTATION PROGRAM

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The following table lists all the implementation actions within each of the individual elements identified to achieve the stated goals of this Comprehensive Plan. The standalone implementation program will be used to assist the Town in implementing the plan and for progress updates.

Timeframes: Short-term (1-3 years); Medium-term (4-6 years); Long-term (7-10 years)

*Note: Highlighted actions are related to items included in the Town's Capital Improvement Program*

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
HC1.A.1. Seek National Register and National Historic Landmark designation of significant properties and explore designation of the island as a whole	Historic District Commission Historic Society	Ongoing
HC1.A.2. Seek National Register Landmark District designation for the North Light	North Light Commission	Short-term
HC1.A.3. Complete survey of historic structures and sites beyond the boundaries of the Historic District.	Historic Society	Long-term
HC1.A.4. Conduct an island-wide inventory of scenic roads and landscape	Historic Society	Long-term
HC1.B.1. Document and photograph high tides and storm flooding impacts, bluff erosion, etc. in the vicinity of historically significant structures	Planning Board Building, Zoning, Land Use & Planning Town Manager	Ongoing
HC1.C.1. Encourage property owners to voluntarily add their property to the Historic District	Historic District Commission Town Council	Ongoing
HC1.C.2. Evaluate the current boundaries of the Historic District	Historic District Commission Town Council	Short-term
HC1.C.3. Increase monitoring and enforcement efforts of neglected historic properties	Building, Zoning, Land Use & Planning	Ongoing
HC2.A.1. Work with partners to identify and implement solutions to control vegetation growth and invasive species	Building, Zoning, Land Use & Planning Land Trust Town Council	Medium-term
HC2.B.1. Review local regulations to ensure that the scenic and rural character of roads are protected and that development is concealed to the extent possible from public travelways and vantage points	Building, Zoning, Land Use & Planning Planning Board	Short-term
HC2.C.1 Adopt a stonewall ordinance that ensures protection of stonewalls at public vantage points	Planning Board Town Council	Long-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
NR1.A.1. Review new State wetlands setback regulations and determine if additional protection measures are required to protect the quality and habitat of the wetlands systems on Block Island	Building, Zoning, Land Use & Planning Planning Board Conservation Commission Town Manager Town Council	Short-term
NR1.A.2. Develop zoning overlay district with special use permit for high hazard areas that include storm surge inundation, sea level rise and SLAMM projected potential salt marsh areas	Building, Zoning, Land Use & Planning Planning Board Town Council	Medium-term
NR1.B.1. Identify undeveloped land containing habitats of endangered species and/or having a high potential for coastal wetland migration	Land Trust Town Council	Medium-term
NR1.B.2. Explore issues related to reforestation and identify potential lands where reforestation may be a good option	Land Trust Conservation Commission Planning Board Town Council	Long-term
NR1.C.1. Develop informational guides for property owners on how to manage open fields for wildlife and the best cutting practices to achieve various desired results	Land Trust Planning Board Conservation Commission	Long-term
NR1.D.1. Develop an invasive species management plan for Town-owned open space properties	Conservation Commission Planning Board Recreation	Long-term
NR.D.2. Investigate ordinances relating to the control of invasive flora and fauna	Conservation Commission Planning Board	Medium-term
NR1.E.1. Develop an education program aimed at visitors and renters to promote good environmental behavior and responsible stewardship	Tourism Council Conservation Commission Recreation	Medium-term
NR1.E.2. Institute programs at the Block Island School with partners that encourage outdoor learning, natural resources preservation and stewardship among the next generation	School Department	Ongoing

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
NR2.A.1. Investigate strategies to reduce and limit impervious surface on the island and establish a policy identifying an upper limit on the total percentage of impervious cover on the island to be incorporated in the next update of the Comprehensive Plan	Building, Zoning, Land Use & Planning Planning Board Town Council	Long-term
NR2.A.2. Enact guidelines and institute an education campaign on the appropriate use of fertilizers, pesticides and herbicides; Town should serve as a model of best practices	Conservation Commission Recreation Building, Zoning, Land Use & Planning Planning Board Town Manager Town Council	Medium-term
NR2.A.3. Review and strengthen current regulations regarding LID (low impact development)	Building, Zoning, Land Use & Planning Planning Board Town Council	Medium-term
NR2.A.4. Review and strengthen landscaping requirements to ensure low maintenance native vegetation that minimizes the need for watering and use of lawns, fertilizers, and pesticides are used for all new development projects	Building, Zoning, Land Use & Planning Planning Board	Medium-term
NR2.B.1. Draft and adopt regulations to require the preservation or restoration of naturally buffered areas along the Great Salt Pond and significant freshwater ponds	Building, Zoning, Land Use & Planning Planning Board Town Council	Short-term
NR2.B.2. Determine appropriate minimum buffer width and establish incentives for property owners who maintain a vegetated buffer in excess of the minimum	Building, Zoning, Land Use & Planning Planning Board	Short-term
NR2.B.3. With partners, conduct an inventory of vernal ponds; enforce buffers and control use of fertilizers in these area	Land Trust Conservation Commission Building, Zoning, Land Use & Planning Planning Board	Long-term
NR3.A.1. Enact a twelve-month moratorium on individual beach access stair structures	Town Council	Short-term
NR3.A.2. Craft and enact regulations to ensure private beach access structures are located and designed in a manner that minimizes any adverse impacts	Building, Zoning, Land Use & Planning Planning Board Town Council	Short-term
NR3.B.1. Install beach access signage to encourage pedestrians to remain off dunes	Recreation Town Manager	Short-term
NR3.B.2. Implement an effective public education campaign which explains the importance of people remaining off dunes	Recreation Town Manager Town Council	Short-term
NR3.B.3. Install public walkover structures at the Town Beach to discourage traversing the fragile dunes (NHCI.B.2.)	Facilities Manager Building, Zoning, Land Use & Planning Town Manager	Short-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
RCI.A.1. Partner with non-profits to identify and prioritize open space lands that should be conserved	Land Trust Conservation Commission GIS Town Manager Town Council	Ongoing
RCI.A.2. Collaborate with non-profits when acquiring, developing, and maintaining recreation and conservation areas	Land Trust Conservation Commission Town Manager Town Council	Ongoing
RCI.A.3. Prioritize the conservation of lands abutting conserved lands to create large protected greenways, habitat areas and opportunities for trail extensions	Land Trust Town Council	Ongoing
RCI.B.4. Determine if conservation-style subdivisions should be mandatory for all major subdivisions	Planning Board	Short-term
RCI.C.1. Maintain pedestrian trails including the greenway and right-of-ways to the shore so that they remain passable and have appropriate signage	Conservation Commission Land Trust Town Manager	Ongoing
RCI.C.2. Inventory, document and map all public access points to the shoreline and freshwater bodies; publish and distribute a public waterfront access guide	SAWG GIS Harbors Department Recreation Department	Short-term
RCI.C.3. Create and disseminate a blueways map and guide to promote paddling (GSP2.B.1.)	GIS Harbors Department Tourism Council Recreation Department	Short-term
RCI.D.1. Develop a maintenance plan for town recreational facilities that establishes roles and responsibilities of the various town departments and groups	Recreation Department School Department Land Trust Town Manager	Short-term
RCI.D.2. Add amenities and make upgrades to existing town-owned parks when possible	Town Manager Recreation Department Town Council	Ongoing
RCI.D.3. Construct a staircase to provide access from Water Street to the Harbor and breakwater	Town Manager; Facilities Director; Building Official, Old Harbor Task Force	Short-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
RC2.A.1. Develop and implement a fiscally feasible Recreation Master Plan that serves the long-term needs of residents	Building, Zoning, Land Use & Planning Planning Board Recreation Department Town Manager Town Council	Medium-term
RC2.A.2. Explore location options and financial ability of town to develop and operate an indoor recreational facility	Planning Board Town Manager Town Council	Short-term
RC2.A.3. Identify potential locations for the future development of playing fields to relieve issues related to over-use and scheduling conflicts	Planning Board Town Manager	Medium-term
RC2.A.4. Add additional year-round recreational program opportunities targeted to older adults and seniors	Recreation Department	Short-term
RC2.C.1. Incorporate safe and convenient pedestrian and bicycle access to town recreational facilities	Building, Zoning, Land Use & Planning Planning Board Town Manager	Ongoing
RC2.C.2. Retrofit existing facilities when possible to provide increased access to recreational facilities by disabled and seniors	Building, Zoning, Land Use & Planning Planning Board Town Manager	Ongoing
RC2.C.3. Explore opportunities for increased access to the Block Island School gymnasium for adult recreation programs	Recreation Department School Department	Short-term
RC2.D.1. Require that significant land development projects, including major subdivisions, incorporate open space and recreational amenities	Building, Zoning, Land Use & Planning Planning Board	Short-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
GSPI.A.1. Working with partners, such as the CGSP, continue to monitor water quality through coordinated and expanded water sampling efforts at various locations throughout the pond	Harbors Department Harbors Commission Shellfish Commission	Ongoing
GSPI.A.2. With partners, conduct complete physical and chemical analyses of the pond's bottom soil	Harbors Commission Shellfish Commission	Short-term
GSPI.A.3. Identify point sources of pollution and initiate immediate action to cease the activity	Harbors Department	Ongoing
GSPI.B.1. Work with partners to conduct a study to identify potential non-point sources of pollution upstream of the Great Salt Pond	Town Manager Building, Zoning, Land Use & Planning	Short-term
GSPI.B.2. Encourage local land conservation groups such as the Block Island Land Trust, the Nature Conservancy, and the Block Island Conservancy to prioritize land conservation investments which will have a positive impact on water quality of the GSP	Town Manager Town Council Conservation Commission	Ongoing
GSPI.B.3. Educate property owners on best management practices such as minimizing use of herbicides and pesticides	Harbors Department Building, Zoning, Land Use & Planning Conservation Commission	Ongoing
GSPI.C.1. Seek grant funding to implement strategies identified in the Block Island Sea Level Rise Adaptation Study	Building, Zoning, Land Use & Planning Land Use & Planning Grant Writer	Medium-term
GSPI.C.2. Identify lands that will provide marsh migration areas for coastal wetlands of the Great Salt Pond in response to sea level rise	Building, Zoning, Land Use & Planning Land Trust Conservation Commission	Medium-term
GSPI.C.3. With the help of partners, pursue dune restoration projects to mitigate erosion and provide habitat along the Great Salt Pond	Town Manager Building, Zoning, Land Use & Planning Land Use & Planning Grant Writer	Long-term
GSPI.C.4. Consider sea level rise and storm flooding when designing upgrades to or locating public facilities including roads, bridges, structures, utilities, and pump stations	Planning Board Sewer Commission Water Commission Town Manager	Ongoing

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
GSP2.A.1 Survey visiting boaters' experience at New Harbor and their opinions of the island while also collecting valuable data in regards to economic contributions to the local economy during their stay	Harbors Department	Ongoing
GSP2.A.2. Consider offering public restroom and shower facilities, dingy dockage, and storage lockers for New Harbor	Town Manager Town Council Harbors Commission Planning Board	Medium-term
GSP2.A.3. Determine new location for Harbormaster's Office in the vicinity of New Harbor	Town Manager Town Council	Short-term
GSP2.A.4. Establish and maintain a reserve fund dedicated to public improvements for New Harbor	Town Council Finance Department	Short-term
GSP2.A.5. Seek grant opportunities to help fund potential upgrade and expansion of public harbor facilities	Harbors Department Grant Writer Town Manager	Medium-term
GSP2.A.6. Install kiosk that provides information to boaters including the annual Harbor's Guide and a map of the attractions and services surrounding the Great Salt Pond	Harbors Department GIS Department Town Manager	Medium-term
GSP2.B.1. Create and disseminate a blueways map and guide to promote paddling (RCI.C.3.)	Recreation Department GIS Harbors Department Tourism Council	Short-term
GSP2.C.1. Take actions to meet the goals and objectives identified in the locally adopted Harbor Management Plan	Town Manager Harbors Department Harbors Commission	Short-term
GSP2.C.2. Develop a plan with the US Coast Guard and US Army Corp of Engineers which clearly delineates areas for rental moorings, private moorings, anchorages, channels, fairways and turning basins	Town Manager Harbors Department Town Council	Medium-term
GSP2.C.3. Determine scientifically-based maximum number of moorings to prevent negative impacts	Harbors Department	Short-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
GSP3.A.1. Review current local regulations (subdivision, zoning etc.) to ensure they provide the necessary protections for the Great Salt Pond	Building, Zoning, Land Use & Planning Conservation Commission	Short-term
GSP3.B.1. Update the Great Salt Pond Management Plan	Building, Zoning, Land Use & Planning Harbors Department	Medium-term
GSP3.B.2. Seek CRMC approval of locally adopted Harbor Management Plan; keep Harbor Management Plan current through future updates	Harbors Department Town Manager Town Council	Short-term
GSP3.C.1. Maintain an inventory of public right-of-ways to the shore and disseminate a map to residents and visitors	Town Clerk GIS	Ongoing
GSP3.D.1. Explore options for the repurposing of the former Coast Guard Station	Town Manager Town Council Large Capital Asset Committee	Short-term
GSP3.E.1. Support the Shellfish Commission and other organizations in their efforts to develop aquaculture projects and expand shellfish and finfish resources	Town Council Harbors Commission Shellfish Commission	Ongoing

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
HI.A.1. Consider adopting an inclusionary zoning ordinance with a municipal subsidy system and option to pay-in-lieu	Planning Board	Medium-term
HI.A.2. Identify additional sources of funding for Housing Trust Fund	Town Council Finance Town Manager Housing Board	Ongoing
HI.B.1. Explore providing tax incentives to owners who offer year-round rental of their home to income eligible residents	Town Council Finance Town Manager Housing Board	Medium-term
HI.C.1. Identify both town and privately owned properties which could be suitable sites for the development of affordable residential units	Planning Board Town Manager Housing Board	Short-term
HI.D.1. Monitor deed restrictions of affordable housing units and act proactively to ensure units do not expire and transition to market-rate housing	Housing Board Planning Board Town Council	Ongoing
HI.E.1. Establish a stronger monitoring program and/or a tax abatement program for accessory apartments	Town Manager Town Council Building, Zoning, Land Use & Planning Finance	Medium-term
HI.F.1. Evaluate demand for senior and special needs housing	Housing Board Building, Zoning, Land Use & Planning Planning Board	Short-term
HI.F.2. Acquire and hold land for future affordable housing needs	Town Council Housing Board	Ongoing
HI.G.1. Evaluate current tax assessment policies and explore instituting a homestead tax exemption	Town Council Finance Tax Assessor Town Manager	Medium-term
HI.G.2. Investigate housing subsidy program option for workers (current and retired) fulfilling necessary government functions	Town Council Finance Town Manager	Medium-term
HI.G.3. Explore options for town provision of seasonal and/or temporary housing / overnight accommodations for temporary town employees or contractors	Town Manager Facilities Manager Town Council	Medium-term
HI.I.1. In partnership with other municipalities, participate in review and update of current affordable housing legislation	Town Council Housing Board Town Manager	Ongoing

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
H2.A.1. Foster public private partnerships to address seasonal workforce housing needs	Town Manager Town Council	Short-term
H2.A.2. Advance zoning measures to facilitate the provision of seasonal workforce housing by the private sector	Building, Zoning, Land Use & Planning Planning Board	Short-term
H2.A.3. Conduct an education and outreach campaign to raise awareness about seasonal workforce housing needs; encourage owners to rent rooms to seasonal workers	Housing Board Town Council	Ongoing
H2.B.1. Inform homeowners about resources to assist with home repair, maintenance and winterization	Building, Zoning, Land Use & Planning Minimum Housing Inspector	Ongoing
H2.C.1. Promote low housing densities where public services are unavailable and are not planned	Planning Board	Ongoing
H2.C.2. Promote conservation-style development requiring open space set asides in all new major subdivision	Planning Board	Ongoing

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
ED1.A.1. Create incentives to attract or develop island-grown businesses which provide locally needed products and services while also offering year-round job opportunities	Finance Tax Assessor Town Council	Medium-term
ED1.A.2. Establish an incubator space for business start-ups; explore partnerships and grant opportunities to assist with funding construction and operations	Grant Writer Town Manager Town Council	Medium-term
ED1.A.3. Work with partners to establish an outreach program for unemployed residents	Town Council	Long-term
ED1.A.4. Work with partners to undertake surveys, market the island's businesses not directly related to tourism, and solicit specific recommendations for any necessary changes in town policies, regulations and taxation	Town Council	Ongoing
ED1.A.5. Conduct a review of the current zoning ordinance and map to identify potentially suitable additional areas where commercial uses would be appropriate	Planning Board	Short-term
ED1.B.1. Identify and offer quality real-world training opportunities and programs to students	School Department	Ongoing
ED1.C.1. Establish a working group consisting of residents, local business owners and municipal representatives to develop strategies to better support local businesses	Town Council	Medium-term
ED1.C.2. Take measures to control the costs of freight and electricity	Town Manager Town Council	Ongoing
ED1.D.1. Foster the establishment of a downtown merchants association and other local business associations	Old Harbor Task Force Town Council	Short-term
ED1.D.2. Establish a program to ensure the installation of consistent amenities including but not limited to benches and bicycle racks	Planning Board Historic District Commission Old Harbor Task Force	Short-term
ED1.E.1. Determine appropriate opportunities for low-impact, home-based businesses and amend zoning ordinance to allow with a special use permit	Planning Board Building, Zoning, Land Use & Planning	Short-term
ED1.F.1. Amend zoning to encourage agritourism activities and the production of value-added agricultural products	Planning Board Building, Zoning, Land Use & Planning	Short-term
ED1.F.2. Continue to acquire or purchase development rights to farmlands with partners	Land Trust Town Council	Ongoing
ED1.F.3. Investigate options to offer no-cost or low-cost leasing options of conserved lands to farmers	Land Trust	Medium-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
ED1.G.1. Never permit uses such as heavy manufacturing or commercial gambling that would destroy the character of the island	Town Council Planning Board Zoning Board	Ongoing
ED1.H.1. Permit in reasonable quantity ecologically sound aquaculture activities (See Chapter 2. The Great Salt Pond)	Harbors Commission Harbors Department Town Council	Ongoing
ED1.I.1. Permit affordable year-round rental housing and homeownership opportunities throughout the island	Planning Board Zoning Board Block Island Housing Trust	Ongoing
ED1.I.2. Identify potential locations for seasonal workforce housing	Block Island Housing Trust	Short-term
ED1.J.1. Target economic development activities in areas where development and infrastructure exist	Planning Board	Ongoing
ED1.K.1. Establish island-wide reliable high-speed internet connection	Information Technology Broadband Working Group Town Manager Town Council	Short-term
ED2.A.1. Control access to the beaches in a way that protects dunes and bluffs from damage	Conservation Commission Town Manager	Ongoing
ED2.A.2. Identify and promote tourist activities for the “shoulder” and off seasons, specifically those which emphasize individual and quality experiences rather than those designed to attract large numbers of visitors	Block Island Tourism Council	Ongoing
ED2.A.3. Consider establishing a sustainable tourism certificate program for island businesses	Block Island Tourism Council	Long-term
ED2.B.1. Provide improved access to beaches and trails, and increase availability of amenities such as bicycle racks, restrooms, benches, informational materials and signage	Conservation Commission Planning Board Town Council	Long-term
ED2.B.1. Implement a consistent and distinctly Block Island wayfinding signage program to help visitors find local services, facilities, landmarks and attractions (T1.E.3.)	Tourism Council Old Harbor Task Force Historic District Commission Planning Board	Medium-term
ED2.C.1. Identify and map significant viewsheds and enact land use regulations to provide protection	Building, Zoning, Land Use & Planning  GIS Department Planning Board Town Council	Medium-term
ED2.D.1. Schedule regular meetings with organizations and agencies involved in tourism to increase communication	Block Island Tourism Council Town Council	Ongoing
ED2.D.2. Work collaboratively with partners including the Block Island Tourism Council, the Block Island Chamber of Commerce, and Small Business Administration to leverage efforts	Block Island Tourism Council  Town Council	Ongoing

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
TI.A.1. Adopt an airport hazard overlay zoning district to ensure land use compatibility in the vicinity of the state airport (per the requirements of RIGL 1-35 Airport Zoning Act)	Planning Board Town Council	Short-term
TI.A.2. Continue to undertake maintenance activities necessary to preserve safe and adequate docks	Town Manager Harbormaster Town Council	Ongoing
TI.A.3. Establish a local Transportation Commission or other similar body that can advocate the town's interests in access management decisions and the provision of mainland parking	Town Council	Short-term
TI.A.4. Discuss with state leaders the need for island representation on governing bodies making access management decisions relating to Block Island	Town Council Town Manager	Short-term
TI.A.5. Advocate for the establishment of a Port Authority with island representatives having an official seat at the table	Town Council Town Manager	Short-term
TI.B.1. Work with the Public Utilities Commission to establish daily ferry passenger and vehicle capacities	Town Manager Town Council	Medium-term
TI.B.2. Work with the Army Corps of Engineers and CRMC to maintain mooring limit capacity in the Great Salt Pond	Town Manager Harbormaster Town Council	Short-term
TI.C.1. Review and revise zoning as needed to reduce amount of required on-site parking and allow for off-site parking, shared parking, and contribution to public parking or a combination of these measures	Building, Zoning, Land Use & Planning Planning Board Zoning Board Town Council	Medium-term
TI.C.2. Establish and maintain limits on rental vehicles including mopeds	Town Council Police Department	Medium-term
TI.C.3. Develop a parking plan for the downtown and surrounding area	Planning Board Building, Zoning, Land Use & Planning	Medium-term
TI.C.4. Establish a Parking Task Force to address on island parking needs	Town Council	Short-term
TI.D.1. Provide a public system of satellite parking areas within walking distance to Downtown and the harbors	Planning Board Building, Zoning, Land Use & Planning Town Manager Town Council	Long-term
TI.D.2. Explore establishing a fee-in-lieu system to support the development and maintenance of satellite parking areas as an alternative to requiring on-site parking Downtown	Planning Board Building, Zoning, Land Use & Planning Town Manager Town Council	Long-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
T1.E.1. Work with RIDOT to implement bicycle and pedestrian safety projects on the island	Police Department Building, Zoning, Land Use & Planning Town Manager Public Works	Ongoing
T1.E.2. Conduct regular road and sidewalk condition surveys as a means to better prioritize infrastructure investments	Public Works GIS Department Town Manager	Medium-term
T1.E.3. Implement a consistent and distinctly Block Island wayfinding signage program to help visitors find local services, facilities, landmarks and attractions (ED2.B.2.)	Tourism Council Old Harbor Task Force Historic District Committee Planning Board	Medium-term
T1.E.4. Conduct a public awareness and safety campaigns in regards to sharing the roads with cyclists and pedestrians and encouraging helmet use	Police Department	Short-term
T1.H.1. Evaluate each road currently or potentially impacted by sea-level rise or flooding to determine appropriate actions to limit impacts to the community	Building, Zoning, Land Use & Planning Emergency Management Task Force Planning Board Town Manager Town Council	Long-term
T1.H.2. Conduct a planning study of Corn Neck Road to identify alternatives to mitigate future impacts from storms and climate change (NHCI.A.4.)	Planning Board Building, Zoning, Land Use & Planning Town Manager Town Council	Short-term
T2.A.1. Review local subdivision and zoning regulations, and amend as necessary, to ensure roadways and amenities are designed for all users	Building, Zoning, Land Use & Planning Planning Board	Short-term
T2.A.2. Work with partners to install additional sidewalks and bicycle racks in and around Downtown	Old Harbor Task Force Tourism Council Planning Board Town Council	Ongoing
T2.A.3. Require installation of benches and bicycle racks when reviewing substantial development projects	Planning Board	Ongoing
T2.A.4. Undertake a comprehensive bicycle and pedestrian plan to address user safety and overall mobility	Building, Zoning, Land Use & Planning Planning Board Town Manager	Medium-term
T2.A.5. Submit bicycle and sidewalk projects for inclusion in the State's Transportation Improvement Program and local Capital Improvement Program	Building, Zoning, Land Use & Planning Planning Board Town Manager Town Council	Ongoing

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
T2.B.1. Work with RIDOT to design bicycle and pedestrian paths that are congruent with the island's rural character	Building, Zoning, Land Use & Planning Planning Board Town Council	Ongoing
T2.B.2. Ensure walking trails including the Greenway and public right-of-ways to the shore remain passable and have appropriate signage	Conservation Commission Land Trust Town Manager	Ongoing
T2.C.1. Explore ways to provide transit options for the disabled and seniors	Town Council Town Manager	Long-term
T2.D.1. Advocate for ferry pricing and management decisions that reduce incentives to travel to the island with a personal vehicle	Town Council Town Manager	Ongoing
T2.D.2. Advocate for improved mainland parking facilities with affordable rates	Town Council Town Manager Tourism Council	Ongoing
T2.D.3. Work with the Rhode Island Department of Environmental Management and the Town of Narragansett to develop a long-term parking plan in Point Judith	Town Council Town Manager Building, Zoning, Land Use & Planning	Long-term
T2.E.1. Provide access to public storage lockers and other amenities which improve the convenience and experience for daytrippers travelling to the island without a vehicle	Tourism Council Old Harbor Task Force Town Manager Town Council	Medium-term
T2.E.2. Explore viability of a limited fixed route seasonal jitney bus service to provide access to main attractions for visitors addressing first a connection between Old and New Harbor	Tourism Council Town Manager Town Council	Medium-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
SF1.A.1. Make reliable high-speed internet available to the Block Island School and library in order to maintain and expand its educational programming	School Department Information Technology	Short-term
SF1.A.2. Undertake efforts to maintain and improve the long term viability of the public school system in response to reduced enrollment, including a plan to expand education on the island	School Department	Ongoing
SF1.B.1. Include costs of necessary and significant improvements to town facilities in the capital budget	Facilities Manager Planning Board Finance Town Manager Town Council	Ongoing
SF1.B.2. Explore reuse and rehabilitation of existing town structures for identified community needs	Facilities Manager Town Manager Planning Board	Short-term
SF1.C.1. Expand access to mental health treatment and substance abuse counseling	Block Island Medical Center NAMI Block Island Town Council	Ongoing
SF1.C.2. Increase telemedicine opportunities	Block Island Medical Center Information Technology	Short-term
SF1.C.3. Assist in identifying a long-term funding source for a mental health case worker	NAMI Block Island Town Council	Short-term
SF1.C.4. Ensure town departments are represented and contribute to NAMI BI task force	NAMI Block Island Town Council	Short-term
SF1.D.1. Evaluate current and anticipated future need for additional senior support services and staff including a social worker	Senior Coordinator Senior Committee Town Council	Medium-term
SF1.D.2. Promote and permit the development of appropriately located assisted living housing and transportation services	Senior Committee Town Council	Long-term
SF1.E.1. Communicate public safety needs to the State including a potential need for additional State Police presence during summer months	Police Town Manager	Short-term
SF1.E.2. Evaluate need for paid fire or rescue personnel	Town Manager Town Council Fire	Medium-term
SF1.F.1. Conduct a cost analysis comparing average annual costs associated with housing town staff and consultants and costs associated with the development and ownership of municipal housing for staff.	Town Manager Facilities Manager	Short-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
SF2.A.1. Work with Tourism Council, Chamber of Commerce and other partners to promote water conservation, energy conservation and solid waste reduction among tourism industry and visitors	Conservation Commission	Ongoing
SF2.B.1. Utilize on-site renewable sources of energy where feasible	Facilities Manager	Ongoing
SF2.B.2. Explore regional provision of services opportunities	Town Manager Town Council	Ongoing
SF2.B.3. Update Island Energy plan to reflect recent BIPCO purchase and off-shore wind farm.	Planning Board	Short-term
SF2.C.1. Implement plans to provide improved facilities including a welcome center at New Harbor for visitors arriving by personal watercraft	Harbors Department Town Council Town Manager	Long-term
SF2.D.1. Conduct a waste audit of municipal facilities	Town Manager	Short-term
SF2.D.2. Launch composting program and public education campaign	Conservation Commission Town Council	Short-term
SF2.D.3. Provide incentives to residents to compost and increase recycling efforts	Conservation Commission Town Council	Ongoing
SF2.D.4. Make necessary upgrades to the transfer station including drainage improvements and improved processing capabilities	Town Council Town Manager Facilities Manager	Long-term
SF2.E.1. Educate the public on the problems associated with impaired stormwater quality, the conditions which contribute to impaired water quality, and the actions which can be taken by the community both individually and as a whole to improve the quality of stormwater runoff	Planning Board Building, Zoning, Land Use & Planning Public Works Town Council	Short-term
SF2.E.2. Complete a watershed management plan	Building, Zoning, Land Use & Planning Planning Board Public Works Town Council	Medium-term
SF2.E.3. Review and strengthen current regulations regarding LID (low impact development) (NR2.A.3.)	Building, Zoning, Land Use & Planning Planning Board Town Council	Medium-term
SF2.E.4. Continue to identify inadequately functioning or failed systems through an inspection and monitoring program, first targeting critical resource areas	OWTS Inspector	Ongoing
SF2.E.5. Draft regulations which will require phase out of septic systems which do not meet current standards for on-site treatment and explore funding opportunities to assist homeowners	OWTS Inspector Planning Board Town Council	Short-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
NHCI.A.1. Complete an assessment of the potential impacts to public structures and infrastructure resulting from projected sea-level rise	GIS Engineering	Medium-term
NHCI.A.2. Include in the capital improvement program projects required to mitigate threats to infrastructure and properties	Planning Board Town Manager Town Council Facilities Manager	Ongoing
NHCI.A.3. Evaluate current zoning and land use regulations related to future impacts from climate change and sea level rise	Planning Board	Medium-term
NHCI.A.4. Conduct a planning study of Corn Neck Road to identify alternatives to mitigate future impacts from storms and climate change (TI.H.2.)	Building, Zoning, Land Use & Planning  Planning Board Town Manager Town Council	Short-term
NHCI.B.1. Work with the land trust and other stakeholder to identify and protect from development low-lying land vulnerable to impacts from flooding and sea level rise and areas adjacent to coastal wetlands susceptible to increased inundation due to sea level rise	Town Council Town Manager Land Trust Planning Board GIS Conservation Commission	Ongoing
NHCI.B.2. Install public walkover structures at the Town Beach to discourage traversing the fragile dunes (NR3.B.3.)	Town Manager Facilities Manager  Building, Zoning, Land Use & Planning	Short-term
NHC.I.B.3. Implement green infrastructure stormwater management strategies to enhance infiltration and increase retention on town properties and road right-of-ways	Engineering  Building, Zoning, Land Use & Planning  Planning Board	Long-term
NHC.I.B.4. Evaluate the potential impacts of sea-level rise on public sewer infrastructure and potential inundation of onsite wastewater treatment systems	Engineering Planning Sewer Department	Medium-term
NHC.I.B.5. Investigate options to mitigate flooding along Beach and Ocean Avenues and its impacts on public safety buildings and services	Engineering  Building, Zoning, Land Use & Planning  Planning Board	Medium-term
NHCI.C.1. Apply for funding to assist in implementing projects identified in the town's Hazard Mitigation Plan	Town Manager Engineering  Building, Zoning, Land Use & Planning	Ongoing
NHCI.C.2. Establish a committee responsible for reviewing progress on implementation of the Hazard Mitigation Plan and activities resulting in CRS credit and other mitigation projects related to potential impacts of sea level rise	Town Council	Medium-term
NHCI.D.1. Assess the feasibility of burying power lines particularly in scenic and high risk areas and when road construction is planned	Town Manager	Medium-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
NHC2.A.1. Establish a process to directly contact special populations such as those who are particularly vulnerable due to location, age or infirmity, to ensure their understanding of procedures prior to and following a storm event	Emergency Management Public Safety Medical Center Information Technology GIS	Short-term
NHC2.A.2. Collaborate with agencies monitoring the impacts of climate change with efforts such as documenting high tide events, storm flooding impacts, bluff erosion and impacts on species	Emergency Management Public Safety Conservation Commission	Ongoing
NHC2.B.1. Undertake actions that qualify the town for advanced FEMA CRS scoring	Building, Zoning, Land Use & Planning Town Manager	Short-term

# IMPLEMENTATION PROGRAM

Actions	Responsible Party	Timeframe
<p>LUI.A.1. Review and amend the zoning ordinance and the subdivision regulations as needed to ensure compatibility with the desired land use pattern</p> <p>1. Higher density development should be restricted to the compact village and transition areas that have access to public water and sewer</p> <p>2. Require residential development in the countryside to occur in a density and manner that is sensitive to, and complimentary of, the island's traditional landscape</p>	<p>Planning Board</p> <p>Town Council</p>	<p>Short-term</p>
<p>LUI.B.1. Evaluate results of build out analysis and make adjustments in policy and regulations as desired to meet the goals identified in this Comp Plan</p>	<p>Planning Board</p>	<p>Short-term</p>
<p>LUI.C.1. Identify amendments necessary to local subdivision regulations to ensure development occurs in a manner consistent with the goals of this Comp Plan</p>	<p>Planning Board</p>	<p>Short-term</p>
<p>LUI.C.2. Review Flexible Subdivision Design (conservation-style) to ensure regulations will result in desired development and open space set aside outcomes</p>	<p>Planning Board</p> <p>Town Council</p>	<p>Short-term</p>
<p>LUI.C.3. Undertake a review of the Planned Development Regulations, with amendments to extend its application to all of the commercial and mixed use districts and to focus on creative mixed-use development as well as affordable housing</p>	<p>Planning Board</p> <p>Town Council</p>	<p>Medium-term</p>
<p>LUI.D.1. Undertake a review of all mixed use and commercial zones with possible amendments to their definitions, allowed uses, dimensional requirements and district boundaries</p>	<p>Planning Board</p> <p>Town Council</p>	<p>Short-term</p>
<p>LUI.F.1. Amend zoning ordinance to be consistent with applicable state and federal requirements pertaining to airport hazards</p>	<p>Planning Board</p> <p>Town Council</p>	<p>Short-term</p>
<p>LUI.G.1. Prepare and implement a Village Design Plan that promotes the historic and walkable qualities of this dense mixed-use center</p>	<p>Planning</p> <p>Planning Board</p> <p>Historic District Commission</p> <p>Old Harbor Task Force</p>	<p>Medium-term</p>
<p>LUI.G.2. Review regulations for parking and pedestrian access in both the zoning and subdivision regulations, and consider amendments to allow flexibility in parking requirements and to strengthen provisions for sidewalks and pathways as part of new development in the village and transitional areas</p>	<p>Planning</p> <p>Planning Board</p> <p>Historic District Commission</p> <p>Old Harbor Task Force</p>	<p>Medium-term</p>

*Note: Highlighted actions are related to items included in the Town's Capital Improvement Program.*

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# 13. ACRONYMS & DEFINITIONS

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## Acronyms

CGSP – Committee for the Great Salt Pond  
CRMC – Rhode Island Coastal Resources Management Council  
EPA – United States Environmental Protection Agency  
FIRM – Flood Insurance Rate Map  
GSP – Great Salt Pond  
HDC – Historic District Commission  
LCAS – Large Capital Asset Subcommittee  
NOAA – National Oceanic and Atmospheric Administration  
OWTS – On-site Wastewater Treatment System  
RIDOT – Rhode Island Department of Transportation  
RIGL – Rhode Island General Law  
RIRRC – Rhode Island Resource Recovery Corporation  
SAWG – Shoreline Access Working Group  
SLAMM – Sea Level Affecting Marshes Model  
TIP – Transportation Improvement Program

## Definitions

**Affordable housing** is used to describe housing that is generally affordable, meaning that households would pay no more than 30% of their income on housing.

**Attainable housing** has a sales price or rental amount that is within the means of a household that is moderate income or less.

**Agritourism** refers to any agriculturally based operation or activity conducted for the enjoyment or education of visitors and that generates supplemental income for the farmer. Agritourism can include farm stands, pick-your-own, tours, classes, festivals and fairs, Christmas tree farms, pumpkin patches, winery weddings, guest ranches, and more.

**American Community Survey** is an ongoing statistical survey by the U.S. Census Bureau, sent to approximately 250,000 addresses monthly (or 3 million per year). It regularly gathers information previously contained only in the long form of the decennial census.

**Area median income** divides the income distribution into two equal parts: one-half of the cases falling below the median income and one-half above the median. HUD uses the median income to calculate income limits for eligibility in a variety of housing programs.

**Best Management Practices** is often used to refer to both structural systems used to treat or store polluted stormwater, as well as, non-structural procedural practices such as educating a community about water quality measures.

**Blueways** are routes along a river or across other bodies of water, such as a lake or saltwater, for people using small beachable boats like kayaks, canoes, day sailors or rowboats.

**Broadband** refers to the amount of data that a consumer can download or upload from the internet in a given second; a wide band of frequencies is available to transmit information resulting in users being able to access the internet and internet related services at significantly higher speeds than those available through “dial-up” services.

**Comprehensive permit** is a state-law regulated, single application for special exception to build low and moderate income housing in lieu of separate application to applicable boards (developer goes only to the Planning Board for review and relief instead of also going to the Zoning Board). “Comp permits,” as they are called, require a minimum 25 percent affordable housing.

**Conservation easement** refers to a binding contractual agreement between typically a land trust or government entity and a landowner under which the landowner, permanently or during a time period specified in the agreement, agrees to conserve or restore habitat, open space, scenic, or other ecological resource values on the land covered by the easement.

**Conservation-style subdivision** is a site planning technique which bases the layout of building lots on the natural characteristics of the land and reduces lot sizes so that the remaining land can be used for recreation, common open space, and/or preservation of environmentally, historically and culturally sensitive features and structures.

**Dredging** is an excavation activity or operation usually carried out at least partly underwater, in shallow seas or fresh water areas with the purpose of gathering up bottom sediments and disposing of them at a different location. This technique is often used to keep waterways navigable.

**Eutrophication** is an excessive richness of nutrients in a waterbody (phosphates) frequently due to contaminants from upland runoff, which causes a dense growth of plant life and death of animal life from lack of oxygen.

**Farm, Forest, and Open Space Program** allows property to be assessed at its current use, not its value for development. The purpose of the law is not to reduce property taxes, but to conserve Rhode Island’s productive agricultural and forest land by reducing the chance it will have to be sold for development (RIGL 44-27).

**Farm-to-table** refers to a movement which promotes serving local food at restaurants.

**FIRM (Flood Insurance Rate Map)** is the official map of a community on which the Federal Emergency Management Agency (FEMA) has delineated the Special Flood Hazard Areas (SFHAs), the Base Flood Elevations (BFEs) and the risk premium zones applicable to the community.

**Fresnel lens** is a type of compact lens originally developed by French physicist Augustin-Jean Fresnel for lighthouses. A Fresnel lens can capture more oblique light from a light source, thus allowing the light from a lighthouse equipped with one to be visible over greater distances.

**Geographic Information System** is a computer system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.

**Greenways** are a track of land that is reserved for conservation or recreational use.

**Highway Functional Classification System** is used to define the role a road plays in the nation’s highway network. A roadway’s functional classification is based upon its level of travel mobility and access to

property according to a hierarchy of travel service it provides. A roadway's functional classification now has increased importance when the State determines project priority in developing the state's Transportation Improvement Program.

**HousingWorks** is a coalition of public, non-profit and private organizations in Rhode Island, affiliated with Roger Williams University, which researches and advocates for affordable housing across the state.

**Inclusionary zoning ordinance** is a local regulation which requires a given share of new construction to be affordable by people with low to moderate incomes.

**Invasive species** is an organism (plant, animal, fungus, or bacterium) that is not native and has negative effects on the economy, environment, or health. Not all introduced species are invasive.

**Low-and-Moderate Income Housing** or "LMI housing" is used to describe housing that has been subsidized and deed- or otherwise-restricted for a term not less than 30 years to ensure long-term accessibility to those of low- and moderate-incomes, as defined by the Low and Moderate Income Housing Act, RIGL § 45-53-3.

**Low -and - Moderate Income Housing Act** is the State law requiring that 10% of each municipality's housing stock be "affordable". "Affordable" units are required to have a government subsidy and deed restriction to assure they will remain affordable for a minimum of 30 years. The Act requires that communities that are not exempt, produce an "affordable housing plan" and file an annual progress report with the Housing Resources Commission.

**Mixed use zoning** sets standards for the blending of residential, commercial, cultural, or institutional uses. Mixed use zoning is generally closely linked to increased density, which allows for more compact efficient development while reducing energy consumption and transportation costs. The mixed use buildings that result can help strengthen or establish neighborhood character and encourage walking and bicycling.

**Nonpoint source pollution** comes from many diffuse sources associated with land use activities over a wide land area. When rainfall or snowmelt occurs, sediment, nutrients, organic and toxic substances are carried across the ground and into surface waters and groundwater.

**Point source pollution** means any discernible, confined and discrete conveyance, including but not limited to any pipe, conduit, container, concentrated animal feeding operation, vessel or other floating craft, from which pollutants are or may be discharged.

**Payment in lieu** is an alternative to the actual physical integration of affordable units into a given development. The developer makes a payment of a predetermined sum of money to the community to be used for future development of affordable housing units.

**State Transportation Improvement Program (TIP)** is the multi-year program for scheduling and funding the planning, design, and construction phases of the entire range of transportation projects in the state.

**Mandatory Recycling Rate** includes common recyclables sent to RIRRC's Materials Recycling Facility plus other materials on the RIDEM's Mandatory Recyclables List including leaf and yard debris composted at RIRRC or elsewhere, as well as clothing and other metals reused or recycled elsewhere. RIRRC divides these tons by their total plus the total tons of trash delivered to RIRRC for landfilling.

**Rate of Overall Material Diversion from Landfill** is a measure which expands on the Mandatory Recycling Rate by adding in all other materials that are diverted from the landfill for reuse or recycling. It includes special wastes such as tires, mattresses, clean wood, clothing and shoes, books, motor oil and filters, cooking oil, etc, not on the RIDEM'S Mandatory Recyclables list. RIRRC divides these tons by their total plus the total tons of trash delivered to RIRRC for landfilling.

**Sea level rise** refers to the current and projected rise in sea level associated with climate change and global warming.

**Stewardship** refers to the responsible use and protection of the natural environment through conservation and sustainable practices in a way that takes full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society.

**Storm surge** is a coastal flood of rising water as a result of atmospheric pressure changes and wind associated with a storm.

**Type I Waters** is identified as “Conservation” in the R.I. Coastal Resources Management Council’s Water Type Classification. Type I waters include water areas that are within the boundaries of designated wildlife refuge areas, water areas that have retained undisturbed natural habitat or maintain scenic values of unique or unusual significance, and water areas that are particularly unsuitable for structures due to their exposure to severe wave action, flooding and erosion.

**U.S. Census** is a decennial population census mandated by the United States Constitution and carried out by the U.S. Census Bureau. It is the number one source of current population data and the latest Economic Indicators.

**Value-added products** most generally refers to manufacturing processes that increase the value of primary agricultural commodities (i.e. strawberries into jam). Value-added agriculture may also refer to increasing the economic value of a commodity through particular production processes, e.g., organic produce, or through regionally branded products that increase consumer appeal and willingness to pay a premium over similar but undifferentiated products.

**Vernal ponds** are temporary wetlands that fill after the snowfall each spring. They become the seasonal breeding and feeding grounds for many intriguing amphibians and insects, as well as the reptiles, birds, and mammals that depend on them for food.

**Watershed** is an area of land that feeds all the water running under it and draining off of it into a body of water.

**Wayfinding** typically refers to an attractive and consistent signage program used to orient and guide unfamiliar motorists, bicyclists and pedestrians, for the purposes of enhancing visitors' experience and promoting local economic development.

**Wellhead protection area** is a surface and subsurface land area regulated to prevent contamination of a well or well-field supplying a public water system. This program, established under the Safe Drinking Water Act, is implemented through state governments.

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# APPENDIX A

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Shoreline Access Working Group (SAWG) Report, 2015

# Shoreline Access Working Group

Town of New Shoreham

Chair: Michael Shea

Members: Christopher Blane, Doug Michel, Sven Risom,  
Gary Ryan and Marc Tillson,.

December 2015

# INTRODUCTION

The Shoreline Access Working Group (SAWG) is pleased to submit this report on public shoreline access points to the Town Council. It is our hope that the report will be helpful to the Town Council and our community in not only identifying our shoreline access points but to assist in planning for the maintenance and improvements for access to the Island's shoreline.

The SAWG toured over twenty of the 43 public access points during the winter of 2015 and reviewed each site for its current state of public access and discussed what steps the Town should take to identify the sites, maintain safe access to shoreline, and provide access for emergency equipment and responders.

The SAWG balanced the right of public access to the shoreline with the need to protect environmentally sensitive sites in our report. We considered the construction of manmade structures, walkways, stairways, and dune "walk-overs" while realizing the shoreline is dynamic, always changing and the effect storm events and sea level rise will have on the construction and maintenance of structures on the shoreline.

The SAWG welcomed and listened to the concerns of private property owners abutting the access points and considered their right to the quiet enjoyment of their properties with the public's right to have access to the shoreline.

We considered the installation of appropriate signage to identify the access points, how to improve accessibility to persons with disabilities and the need for additional parking spaces at some locations. We have incorporated those considerations into our report.

We also incorporate by reference "The Shoreline Access on Block Island" a report prepared for the Block Island Conservancy and the New Shoreham Planning Board by Michele Crowley in June of 1990.

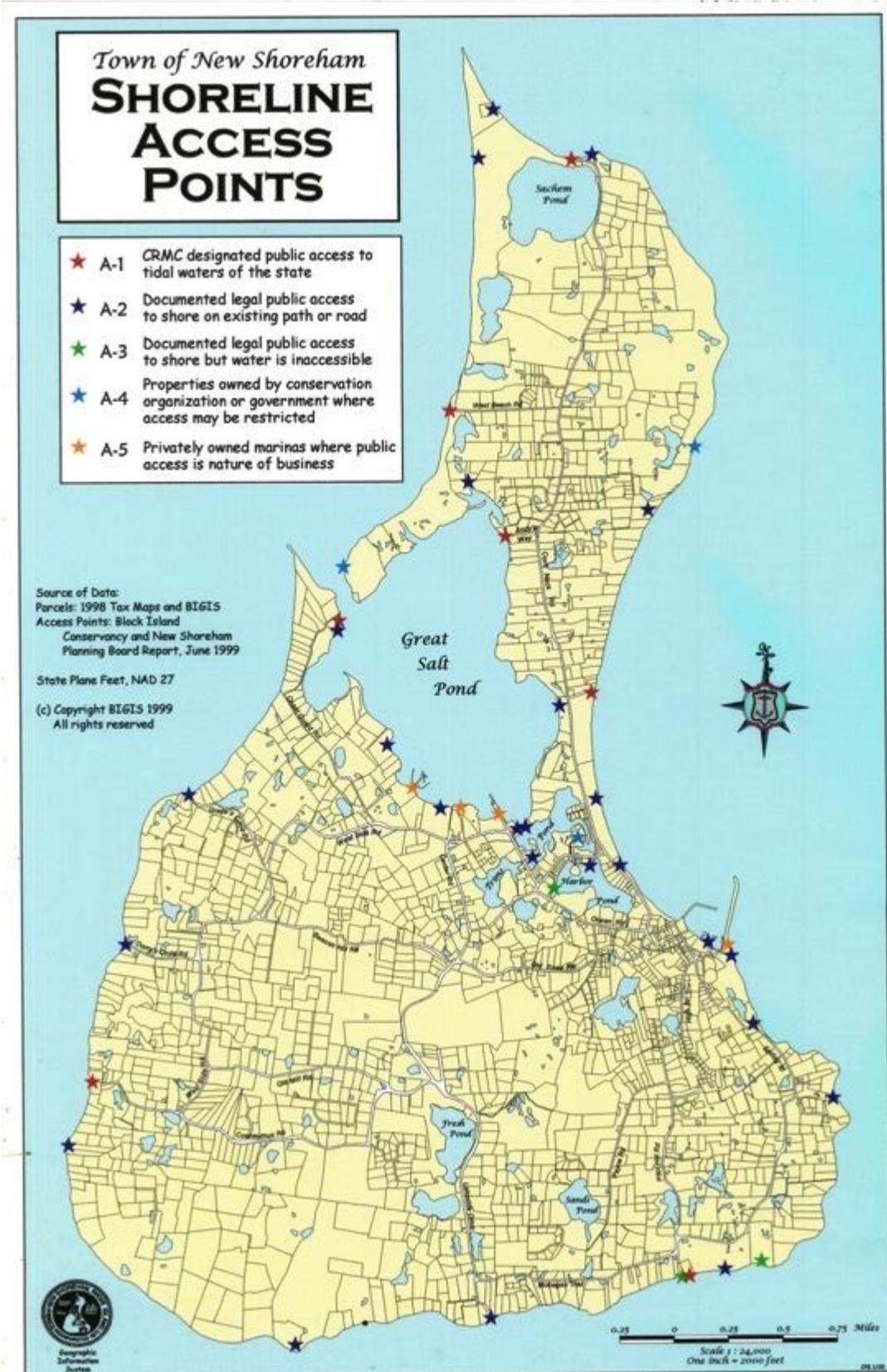
We want to acknowledge and thank Deputy Town Clerk Millie McGinnes for her professionalism, hard work, and guidance in assisting the SAWG in preparing this report. A special thank you the Town's GIS Specialist Alison Ring for her assistance in mapping the location of the shoreline access points and to Karen LeRoy for her editing assistance.

# High Priority Access Points

The Shoreline Access Working Group has prioritized 6 points of the 43 that need attention and support from the town, in part to ensure safe and easy access to the shoreline, or to confirm and re-establish the access as deemed. These locations are:

- Breed Property
- Andy's Way
- Southwest Point
- Charleston Beach
- Grace's Cove
- Champlin Road (end)/Coast Guard Beach

# There are 43 Unique Shoreline Access Points



# Shoreline Access Point: North Light

**Description/location:** The northern tip of the island has full shoreline access on the east and west shoreline.



## Recommended Actions:

- Maintain an easy transition from the parking lot to the sand road headed to the north light

**See Appendix A, pages 20-21**

(1999 Shoreline Access on Block Island)

# Shoreline Access Point: Block Island National Wildlife Refuge

**Description/location:** This land is to the north north west of Sachem pond is a large seagull nesting area.



## Recommended Actions:

- Maintain an easy transition from the parking lot to the sand road headed to the north light.
- Monitor dune erosion and be prepared to repair access to the area after storm events.

**See Appendix A, pages 23-24**

# Shoreline Access Point: Settler's Rock

**Description/location:** Identified as CRMC # E-1 (CRMC identified, not owned).



## Recommended Actions:

- Monitor dune erosion and be prepared to repair the area around Settler's Rock after storm events.

**See Appendix A, page 19**

# Shoreline Access Point: Grove Point

**Description/location:** End of Corn Neck Road. Pathway east of Settler's Rock through Plat 1, Lot 2 and Plat 1, Lot 18.



## Recommended Actions:

- Monitor dune erosion and be prepared to repair access to the area after storm events.

See Appendix A, page 22

# Shoreline Access Point: Breed Property

**Description/location:** Western access to the beach from Corn Neck Road just south of Sachem Pond from Corn Neck Road.

**Background/issues:** Property deeded to the Town as a nature sanctuary. There is no parking area for the access although cars can park on Corn Neck Road and visitors can walk in.



## Recommended Actions:

- No improvements on the property except maintaining clear path access to the beach.
- Determine appropriate signage – currently it is misleading as to whether a car can or cannot access the beach or south shore of Sachem pond.
- Ensure that Town legal counsel defend public and deeded access to the beach when it has been clearly encroached. This location/situation could be very important to reinforce that the town will protect public access.

**See Appendix A, page 28**

# Shoreline Access Point: West Beach Road

**Description/location:** Beach access at the end of West Beach Road. Parking exists on the sides of the road. The path to the beach is heavily eroded.

**Background/Issues:** Runoff is causing heavy erosion along the path to the beach. Historic landfill is leaching out/eroding onto the beach north of the access area. The Town is working with DEM to establish a mitigation plan.



## Recommended Actions:

- No immediate action recommended for this area.
- Wait for the final mitigation plan.
- Ensure easy access to the beach is provided, north and south. Consider a marked pathway to the south.

**See Appendix A, pages 25 & 91**

# Shoreline Access Point: Clayhead/Bluestone

**Description/location:** To the east of The Maze and Lapham land. This access point goes down some bluffs. Rarely traveled, it is an access point between settlers rock and Mansion Beach.



## Recommended Actions:

- Support Nature Conservancy maintenance.
- Monitor dune erosion and be prepared to repair access to the area after storm events.

**See Appendix A, pages 26-27**

# Shoreline Access Point: Skipper's Island

**Description/location:** Off Corn Neck Road to the west, north of Andy's Way. The access point is through Plat 3, Lot 66-1 continuing through a path to the marsh.



## **Recommended Actions:**

- Support the Block Island Conservancy's maintenance efforts of this access point.

**See Appendix A, pages 31-32**

# Shoreline Access Point: Beane Point

**Description/location:** Beane Point is owned by the U.S. Fish and Wildlife and is a beautiful spot for boaters to visit from the Great Salt pond, or walkers to visit from West Beach and Andy's Way.

## **Background/Comments:**

The access way to Beane Point goes over town land and the Sand Trail is a very sensitive area of the pond. Many organizations, including the Town of New Shoreham, are watching this area for wash-overs, erosion and breaching.

If significant breaches occur, it is believed that significant change to the shell fishing and the marshes will occur and the town should plan accordingly.



## **Recommended Actions:**

- Continue to minimize all vehicular traffic over the town land and continue to support pedestrian access and dune protection.

**See Appendix A, pages 89-90**

# Shoreline Access Point: Mansion Beach

**Description/location:** Popular beach parking and access area at the end of Mansion Road.

**Background/Issues:** The Parking was reconfigured and increased three years ago improving the area. Bathroom facilities may be a consideration of the Town in future.



## Recommended Actions:

- No immediate action recommended for this area.
- Continue to keep the paths and foundation clear and free to pass.
- Monitor traffic and parking to determine if there is a need for additional parking.

**See Appendix A, pages 33-34**

# Shoreline Access Point: Minister's Lot

**Description/location:** Small unloading, bike parking area at the end of Minister's Lot Road, offering an access path to Crescent Beach.

**Background/issues:** New bike racks installed this year. The path to the beach is a well maintained walking path.



## Recommended Actions:

- No immediate action recommended for this area.
- Ensure the bike racks are maintained and remain in place.
- Continue to ensure mowing and brush work keeps the access way open.

# Shoreline Access Point: Andy's Way

**Description/location:** Popular Great Salt Pond beach access at the end of Andy's Way.

**Background/Issues:** Heavily trafficked area with eroding gullied path . Needs improvement for public safety and rescue access .



High Priority Access Location

## Recommended Actions:

- Investigate installing a 6 ft. wide, wooden, curved walking ramp (wide enough for small boats and emergency ATV access) ending at a small platform.
- Level out the parking area, and consider delineating the parking spaces.

**See Appendix A, pages 29-30**

# Shoreline Access Point: Scotch Beach

**Description/location:** Beach parking and access at the end of Scotch Beach Road. This property continues to the Town Beach property.

**Background/Comments:** The parking area has shrunk with sand intrusion.



## Recommended Actions:

- Clean up and define the parking lot – consider space and angled parking to increase capacity
- Consider new parking spaces and handicapped access parking particularly along the northern boundary
- Consider ways to minimize storm surge impact of Corn Neck Road by looking at parking, vehicular and pedestrian traffic routes.

See Appendix A, pages 36-36

# Shoreline Access Point: Mosquito Beach

**Description/location:** Small parking area on the West side of Corn Neck Road providing access to Great Salt Pond.

**Background/Issues:** The beach along the Great Salt Pond is reached by a boardwalk over the marsh. The site is in fantastic condition.



## Recommended Actions:

- The Town should apply to the CRMC for an assent to remove and/or mitigation of the phragmites and non-native vegetation to re-open the viewshed.

See Appendix A, pages 37-38

# Shoreline Access Point: Indian Head Neck

**Description/location:** Access off Corn Neck Road to the west, south of Mosquito Beach. The site extends from the end of the point across the Great Salt Pond to the boat ramp on Ocean Avenue. A location of a historic road.



## Recommended Actions:

- No immediate action is recommended for this area.

See Appendix A, pages 46-48

# Shoreline Access Point: Fred Benson Town Beach

**Description/location:** Beach pavilion and public beach on the east side of Corn Neck Road.

**Background/Issue:** The beach pavilion will be renovated and the parking area reconfigured in an upcoming rehab project scheduled for Spring 2016.



## Recommended Actions:

- Parking should be expanded, currently planned within the Beach Pavilion renovation project.

See Appendix A, pages 42-43

# Shoreline Access Point: Beach Avenue Bridge

**Description/location:** Access to Harbor Pond can be obtained around the bridge.

**Background/Comments:** Technically one can access Harbor Pond around the bridge, but it is dangerous and not supported.



## Recommended Actions:

- Maintain legal access point.

See Appendix A, page 40

# Shoreline Access Point: Crescent Beach

**Description/location:** Crescent Beach lies to the South of Town Beach and just south of Beach Avenue.

## Background/Comments:

- Significant damage to the dunes and Corn Neck Road occurred during Storm Sandy.
- People are walking over the revetment and are damaging the island's protective buffers and dunes.



## Recommended Actions:

- Build stairs/access bridges over the revetment.
- Ensure 3-5 access points are maintained, in order to keep people from walking over the dunes.
- Rope off and post signs about erosion and dune protection between the stairs.

**See Appendix A, page 44**

# Shoreline Access Point: Across from Beachead

**Description/location:** Area at the base of Corn Neck Road, east side, across from the Beachead Restaurant.

**Background/ Issue :** Dune area opened and closed by the highways department to provide a wide open access way to the beach.



## Recommended Actions:

- Evaluate 5 stairways over the dunes.
- Maintain vehicle access to the beach via the roadway and beach house.

# Shoreline Access Point: Mary D. Park

**Description/location:** In Old Harbor, area on the east side of Water Street bordering the jetty and harbor.

**Background/Issue:** A path is maintained through the park to access the beach, although a more direct and dangerous route is continually used near the corner at the Surf Hotel. The Old Harbor Task Force is working on a plan for the area.



## Recommended Actions:

- Support Old Harbor Task Force stair construction project.

See Appendix A, pages 51-53

# Shoreline Access Point: Old Harbor Dock

**Description/location:** Old Harbor Dock is maintained by the Harbors Department and the Town.

**Background/Comments:** A new Harbor Master's building and facilities have been constructed and currently supports the needs.



## Recommended Actions:

- No immediate action is recommended for this area.

See Appendix A, pages 54-56

# Shoreline Access Point: Ballard's Inn

**Description/location:** Area to the south of Ballard's Inn building, alleyway between building and Block Island Land Trust property to the south.

**Background/Issue:** Litigation has ensued regarding whether this is a legal public access. The litigation has been dropped at this time. Currently Ballard's Inn concedes to allowing emergency access.



## Recommended Actions:

- Include the Rescue Squad in the annual pre-season meetings that take place between Ballard's Inn and the Police Department.
- Ensure the rescue squad has permission to access the beach for emergency purposes just south of the building.

**See Appendix A, page 57**

# Shoreline Access Point: Block Island Land Trust access at Ocean View Pavilion

**Description/location:** Path leading to the beach on the property just south of Ballard's Inn leading from the Ocean View pavilion.

## Background/Issue:

- Property is owned by the Block Island Land Trust. Public access is allowed, but may be restricted by the BILT. Newly cleared path has been constructed and must be maintained.



## Recommended Actions:

- No immediate action recommended for this area.

# Shoreline Access Point: Spring House Pond

**Description/location:** On the east side of Spring Street, the Spring House ponds add to the beautiful scenic vista across from the Spring House Hotel.

**Background/Comments:** Continued bluff erosion in the area has triggered significant concerns about the pond barriers breaching. This could be dangerous around the pond, as well as on the beach below.



## Recommended Actions:

- No immediate action is recommended for this area.

See Appendix A, page 64

# Shoreline Access Point: Green Hill Cove

**Description/location:** Located off the east side of Spring Street, near the intersection of Spring Street and Southeast Road.

**Background/Comments:** The property is owned by the Block Island Land Trust.



## Recommended Actions:

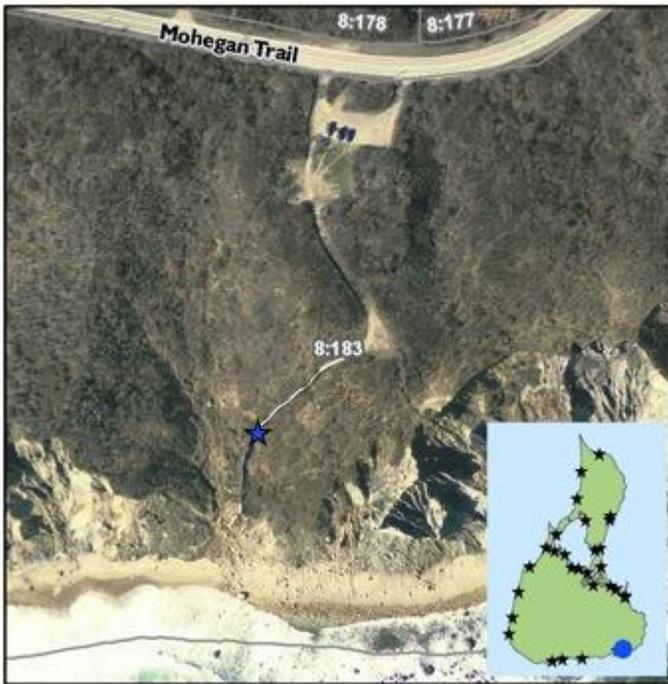
- No immediate action is recommended for this area.

See Appendix A, pages 62-63

# Shoreline Access Point: Mohegan Bluffs - Payne Overlook

**Description/location:** State of RI owned area off Mohegan Trail just past the SE Light to the east. Very popular area with parking and stairs descending part-way down the bluffs.

**Background/Issue:** Parking very congested. Many rescue calls for those who descend beyond the end of the stairway down the bluff to the beach.



**Recommended Actions:** Support the state's proposals for improvements to the site.

**See Appendix A, pages 65-66**

# Shoreline Access Point: Mohegan Bluffs – Scup Rock (aka Second Bluffs) and Town ROW (Pilot Hill Road)

**Description/location:** Area on the south side of Mohegan Trail near the intersection of Pilot Hill Road. Parking area and short trail to bluff viewing area. Plat 8, Lots 186 and 187 (Extension of Pilot Hill Rd).

**Background/Issue:** Town owned and maintained. New fencing along bluff edge.



## Recommended Actions:

- Consider moving the fence away from the edge of the bluff back to the raised area.
- Evaluate the site for public access, safety and erosion, given steepness of the bluffs.

# Shoreline Access Point: Snake Hole

**Description/location:** Small parking area with path to the beach at the end of Snake Hole Road where Black Rock Road and Snake Hole meet.

**Background/Issue:** Parking area is small and awkward due to surrounding wetlands.



## Recommended Actions:

- Investigate ways to open parking given wetlands and topography.
- Ensure the parking and paths are not lost.
- Ensure the trail is cut back to ease access.

**See Appendix A, pages 69-70**

# Shoreline Access Point: Black Rock

**Description/location:** Area at the end of Black Rock Road – private road, currently passage is allowed to public for beach and surfing access.

**Background/Issue:** The Nature Conservancy has a working arrangement with the owners of the area to aid in the planning and maintenance of the area. The washed out road and parking area will be fixed this fall (2015).



## Recommended Actions:

- No immediate action recommended for this area.
- Work with TNC to make sure road improvements are made.

See Appendix A, pages 71-72

# Shoreline Access Point: Rodman's Hollow

**Description/location:** State owned area on the south side of Cooneymus Road, parking area to the east of the hollow with trails running to the bluff edge.

**Background/Issue:** The Rhode Island DEM just completed extensive maintenance on the parking area.



## Recommended Actions:

- No immediate action recommended for this area.

See Appendix A, pages 71-72

# Shoreline Access Point: Southwest Point

**Description/location:** Beach access on the western side of Southwest Point Road. The area was created as a part of a subdivision plan which includes four parking spaces and an 8 ft. deeded path to the beach.

**Background/Issue:** Two of the parking spaces have been lost and it appears the path is only 6 ft. wide.



## Recommended Actions:

- Require compliance with the subdivision plan, reestablishing the four parking spaces and the 8 ft. wide right-of-way to the beach.
- Ensure Town legal counsel defend public and deeded access to the beach when it has been clearly encroached. This location/situation could be very important to reinforce that the town will protect public access.

See Appendix A, pages 73-74

# Shoreline Access Point: Cooneymus Beach

**Description/location:** Access at the end of Cooneymus Road, awkward parking on the south side of the road with a path to the beach.

**Background/Comments:** Deeded Town-owned property.



## Recommended Actions:

- Level off the parking area on the south side of the road along the stonewall to improve parking.
- Mow the opening to the beach path to ensure bike rack location and ease of access.

See Appendix A, pages 75-76

# Shoreline Access Point: Dorry's Cove

**Description/location:** Small parking area with a path to the beach at the end of Dorry's Cove Road.

**Background/Issue:** With path erosion being very problematic, the Highways Dept. created two paths: a walking path and a drainage path. Two paths are currently effective.



## Recommended Actions:

- Maintain current double path system separating walking and rain water run off.

**See Appendix A, page 77**

# Shoreline Access Point: Grace's Cove

**Description/location:** Small parking area with a path to the beach at the end of Grace's Cove Road.

**Background/Issue:** Severe erosion on the path to the beach.



## Recommended Actions:

- Create two separate paths, a drainage path, as well as a walking path.
- Conduct survey of land to determine a location for a walking structure or a path, given rain-water run-off.
- Path may require excavation and a more formal structure.

**See Appendix A, page 78**

# Shoreline Access Point: Sturgis Property

**Description/location:** Off Champlin Road, property on southeast side of Cormorant Cove abutting the Great Salt Pond.

**Background/Issue:** Town owned property currently in natural state, shrubbery with no trails or paths to the shoreline.



## Recommended Actions:

- No immediate action recommended for this area.
- Significant deed restrictions are in place to protect development

See Appendix A, page 93

# Shoreline Access Point: Charleston Beach

**Description/location:** Beach access on Champlin Road, where road meets the west beach and then turns to the northeast.

**Background/Issue:** Visitors to the beach park along the narrow road and on private property. Traffic flow is extremely congested and abutters are aggravated. Sonny and Carol Kern have offered a portion of their property to create an angled parking area at the site.



## Recommended Actions:

- Accept the generous offer of the Kern family to create a parking area on their property along Champlin Road.
- Authorize TNS Highway Department to work with Mr. Kern on final details in the spring of 2016.

**See Appendix A, pages 86 & 93**

# Shoreline Access Point: Coast Guard Beach

**Description/location:** Popular area with parking and path to the Great Salt Pond cut at the end of Champlin Road. The access is a 20 ft. wide roadway all the way to the waters edge at the channel.

**Background/Issue:** The parking area is extremely congested and the path is overgrown.



## Recommended Actions:

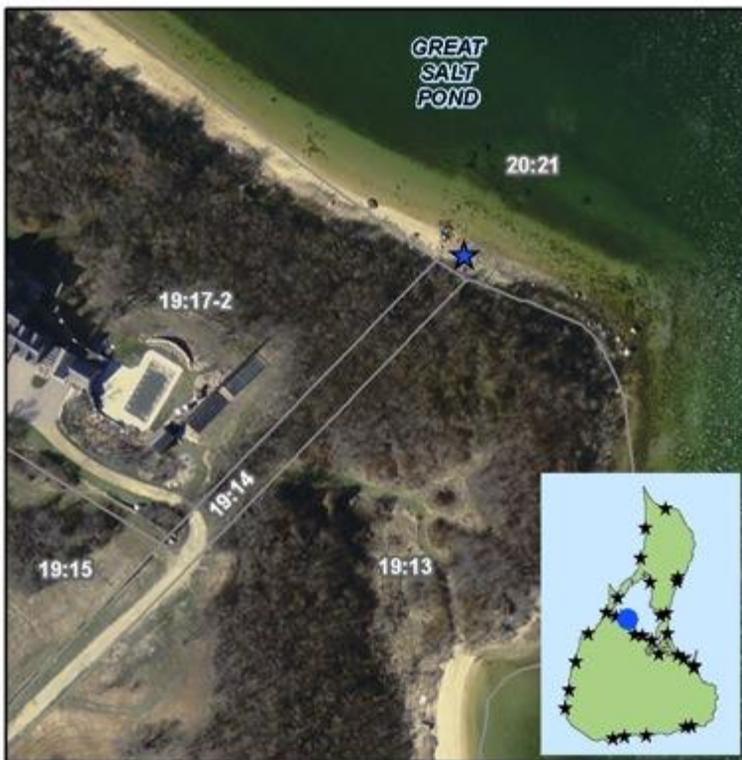
- Open the area at the beginning of the path behind the motor pool building about 20 ft.
  - Create an area for drop-off and to site bike racks and picnic tables.
- Expand the width of the path to the beach to 6 ft. wide.
- Continue to push for increased parking at the Coast Guard station and fully evaluate access to the tennis court shot term

**See Appendix A, pages 87-88**

# Shoreline Access Point: George P.P. Bonnell Beach

**Description/location:** Parking area and path accessing the Great Salt Pond on a private road: first right off Champlin Road, then ½ mile down on east side of the private road.

**Background/Issue:** This area is owned by the Block Island Conservancy – privately owned , access is allowed, but may be restricted.



## Recommended Actions:

- No immediate action recommended for this area.

See Appendix A, pages 82-83

# Shoreline Access Point: Ball O'Brien Park

**Description/location:** Park on the north side of West Side Road to the west just after to mouth of Center Road. Currently hosts a playground, tennis courts, skateboard park, picnic pavilion. There is a path to the Great Salt Pond.

**Background/Issue:** There has been discussions of a future Harbor's Department facility at this location.



## Recommended Actions:

- No immediate action recommended for this area.
- Ensure the pathway from the playground is maintained.
- Keep an eye on discussions regarding expanding Harbor Department and recreational uses which may significantly alter access.

**See Appendix A, pages 79-80**

# Shoreline Access Point: Town Boat Launch

**Description/location:** Boat launch on the shore of the Great Salt Pond, east side of Ocean Avenue across from the mouth of West Side Road.

**Background/Issue:** The ramp was reconstructed the Spring of 2015.



## Recommended Actions:

- No immediate action recommended for this area.

See Appendix A, page 47

# Shoreline Access Point: Ocean Avenue Bridge

**Description/location:** The bridge located on Ocean Avenue down the hill from the police/rescue station heading toward New Harbor.

**Background/Comments:** Access around the bridge is possible. Current kayaking access is used in this area.



## Recommended Actions:

- No immediate action recommended for this area.

**See Appendix A, page 39**

# Shoreline Access Point: Negus Park

**Description/location:** Park located on the north side of Ocean Avenue, across from the Block Island Power Company. Property abuts Harbor Pond.

**Background/Issue:** Property is cleared and has picnic tables. The park is used for the Farmer's Market weekly in the summer.



## Recommended Actions:

- No immediate action recommended for this area.
- Maintain 15 ft. vegetative buffer around the land abutting the Great Salt Pond.

**See Appendix A, page 45**

# Shoreline Access Point: Beach Avenue Properties

**Description/location:** On the north side of Beach Avenue near the Corn Neck Road intersection. There is a walking path to a meadow along the shore of the Great Salt Pond.

**Background/Comments:** The property is owned by the Block Island Land Trust and open to the public.



## Recommended Actions:

- No immediate action recommended for this area.

See Appendix A, page 50

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# APPENDIX B

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Town of New Shoreham Hazard Mitigation Plan  
(Under FEMA Review)

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# APPENDIX C

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New Shoreham Comprehensive Plan,  
Energy Component, 2012

# Energy Component, Comprehensive Plan Town of New Shoreham, Rhode Island



Adopted by the New Shoreham Town Council, June 4, 2012  
Addendum to the New Shoreham Comprehensive Plan, as updated March 2, 2009  
As prepared by the Island Energy Plan Committee, established January 2010

**New Shoreham Comprehensive Plan, Energy Component**

June 4, 2012

Addendum to the Comprehensive Plan, as updated March 2, 2009

*Prepared by:*

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Scott Comings, The Nature Conservancy

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*With input by:*

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Sean McGarry, Block Island Recycling Management

Marc Tillson, Building Official

*Adopted by:*

New Shoreham Planning Board, April 11, 2012

Margie Comings, Chair, Norris Pike, Vice-Chair

Mary Anderson, Sam Bird, Socha Cohen, Dennis Heinz, Sven Risom

Jennifer Brady-Brown, Land Use Administrator

New Shoreham Town Council, June 4, 2012

Kimberley Gaffett, First Warden, Ray Torrey, Second Warden

Peter Baute, Kenneth Lacoste, Richard Martin

Nancy O. Dodger, Town Manager

*Approved by:*

RI Department of Administration, Division of Planning, September 10, 2012

# Energy Component of the New Shoreham Comprehensive Plan

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- Cover photo and all others; Jane Weidman



## INTRODUCTION

As with many communities in Rhode Island, New England and across the country, Block Island has begun to plan for its energy future. International and national events related to exploration for and dependence on fossil fuels, global climate change, and shifts in both government and citizen outlook in terms of energy use and impacts have all coalesced to focus renewed attention on the issues of consumption and conservation. Block Island is uniquely subject to these forces. On one hand, it truly is an island unto itself, dependent on a single company for electricity, with among the highest rates in the nation, and a physical separation that leaves its residents dependent on outside sources for travel to and from the island. On the other hand, it is situated in a coastal area with generous wind resources. Life on the island is infused with a sense of self-reliance, a strong conservation ethic and sensitivity to the environment.

Block Island has struggled with the possibility of both off-shore wind farms within view of the island, and an on-island utility-sized wind turbine. It is no surprise that there are varying opinions among residents and property owners and visitors regarding what the development of these wind facilities will mean to the quality of life on the island. This has led the community to at least one consensus – the need to comprehensively plan for an energy future by developing a plan which addresses alternative energy sources, including wind and solar, recognizes the role conventional sources will continue to play, and explores the gains that can be made through efficiency and conservation. The plan must look beyond the use of fossil fuel for electricity and heating purposes by also considering energy issues related to water usage, solid waste handling and transportation.

## **Island Energy Plan Committee**

During discussions over the role of wind energy in Block Island's future, it was noted that the Services and Facilities chapter of the Comprehensive Plan included a specific Implementing Action – that the Town undertake studies and adopt an updated island energy plan as an element of the Comprehensive Plan. The energy plan should include an analysis of all reasonable and available energy supply and conservation options. As a result, the New Shoreham Town Council worked with the Planning Board in late 2009 and early 2010 to establish an Island Energy Committee. The charge of the committee, as determined by its membership, is to:

1. Establish an Energy Component to the Town of New Shoreham's Comprehensive Plan.
2. Consider, evaluate, and recommend to the Town Council a series of interventions and programs which would allow Block Island to become more sustainable with regard to energy uses.

## **Planning Board Review and Public Participation**

The plan that follows represents the work of the Island Energy Plan Committee, with review and input by the Planning Board and the community. The committee completed the draft document in July 2011. In a series of both regular monthly and special meetings in late 2011 and early 2012, the Planning Board reviewed and updated the plan. The Planning Board adopted the plan at a public hearing held on April 11, 2012. This was followed by review by the Town Council, who adopted the energy plan as an addendum to the New Shoreham Comprehensive Plan at a public hearing held on June 4, 2012.

## **THE PLAN APPROACH**

### **Vision Statement**

The vision for Block Island's Energy Future is as follows:

To grow and evolve as a community while reducing energy consumption and cost through conservation and efficiency; reducing dependence on fossil fuels to improve the environment and reduce greenhouse gas emissions; increasing use of solar, wind and other renewables, both individually and collectively; and maintaining and improving the high quality of life on the island by working as a community to support energy efficient land uses and lifestyles.



## **Block Island Energy Actions**

The island energy plan is truly a plan of plans. It addresses subjects that range from energy sources, both conventional and renewable, to waste reduction and conservation, to regulation and building design. Each subject is contained within a separate section of the plan that includes a background, alternatives and goals. Each section concludes with specific implementing actions for the Town and other parties to proceed with as Block Island undertakes a new energy future. These implementing actions, listed below, are all intended to meet one or more of the following four general goals as contained in the Vision Statement:

- Promote conservation and efficiency in energy use
- Reduce dependence on fossil fuels
- Increase use of alternative energy sources
- Support energy efficient land uses and lifestyles

The energy actions are detailed in a table at the end of this document, which also identifies responsible parties, funding options and timeframe.

### Electric Power Generation and Distribution

1. Continue to actively pursue public non-profit ownership of the power plant
2. Investigate options for a cost effective cable to the mainland, thereby eliminating the need for the power plant (except as back-up)
3. Make use of alternative energy technology
4. Supplement the energy supply with community sized municipal turbine(s) and additional solar PV
5. Upgrade the capacity of the electric distribution system
6. Adjust the rate structure and explore other options to encourage conservation

### Fuel Use

1. Explore the adoption of a town ordinance that prohibits covenants restricting the use of on-site renewables by homeowners associations
2. Reconsider the establishment of a jitney serving island visitors during the summer

### Solid Waste

1. Adjust the commercial fees for disposal at the transfer station to encourage recycling
2. Identify ways to facilitate recycling
3. Explore the use of other waste disposal technologies.
4. Consider alternate locations for the transfer station.

### Water Use

1. Offset the energy costs of the water and sewer plants by establishing on-site renewables
2. Establish a water conservation education program

3. Evaluate the feasibility of an on- island composting demonstration project using yard waste with sludge from the treatment plant
4. Pursue a regional composting facility with other Washington County communities

#### Renewable Energy Use

1. Complete a feasibility study for the establishment of one or more municipal turbines to connect with the on-island electrical distribution system
2. Establish renewable energy systems at the water and sewer plants and at all feasible municipal locations
3. Support biodiesel production by allowing biodiesel producers to provide a waste collection bin for edible oils at the transfer station
4. Encourage use of residential bulk purchasing for PV and solar hot water systems

#### Energy Efficiency and Conservation Efforts

1. Complete the town building audits and make necessary improvements
2. Establish an on-going residential educational program

#### Local and State Energy Regulations

1. Amend the zoning ordinance to reflect current technology for individual and utility WECS\*
2. Amend zoning and other town ordinances with respect to renewables, as needed
3. Establish net metering requirements that apply to Block Island

#### Building Design and Sustainable Development

1. Establish incentives for energy efficient construction using the IECC\*\* and IGCC\*\*\* standards
2. Adopt IGCC standards for use on Block Island
3. Establish incentives for green buildings through the town development (zoning and subdivision) regulations

\* WECS = Wind Energy Conversion Systems

\*\* IECC = International Energy Conservation Code

\*\*\* IGCC = International Green Construction Code

## **ELECTRIC POWER GENERATION AND DISTRIBUTION**

### **Background**

#### Block Island Power Company

Electricity on Block Island is provided by one company, Block Island Power Company (BIPCO), using exclusively diesel-fired generators. BIPCO is a privately held company with four owners. It is a regulated utility subject to the oversight of the Rhode Island Public Utilities Commission (PUC) but exempt from the competitive initiatives introduced on the mainland due to the geographic isolation of its electric power generation and distribution system.

BIPCO serves approximately 1,780 customers, three-quarters of which are residential. The largest single customer is the Town of New Shoreham. Annual generation is approximately 11 million kilowatt hours.

#### Electricity Supply and Fuel Use

BIPCO's generation plant consists of five diesel generators with a total capacity of 7 megawatts. Peak demand is approximately 4 MW, but in winter months when the population is at its lowest, demand falls to less than 1 MW. This seasonal disparity is one of the challenges faced by BIPCO; it must maintain sufficient capacity to meet peak summer demand while running just a single generator in the winter months.



Electricity generation is the largest single energy consumer on the island; the use of diesel fuel to run the generators at the power plant is in the range of 1,000,000 gallons per year, or about one hundred 10,000 gallon tank trucks transported to the island each year by ferry (source: BI Power Company). This volume cannot be significantly reduced without a specific change in generation source and/or construction of an undersea transmission cable to connect with the mainland electric grid. The handling and storage of this volume of fuel carries the risk of a mishap that could jeopardize the island's aquifer, its sole water source, as well as marine life and other natural resources.

Electricity prices on Block Island are among the highest in the country due to the small size of the system, reliance on diesel as a fuel source, transportation costs, seasonal demand swings and isolation from the grid. For fiscal year 2009, prices averaged 49 cents per kilowatt hour, compared with an average mainland price of 15 cents/kWh. The electricity price on the island is highly sensitive to national fuel prices. For example, in the summer of 2008 when crude oil prices spiked to nearly \$150 a barrel, electricity prices rose to approximately 62 cents/kWh on Block Island, compared to a mainland price of 18 cents/kWh; see Appendix A. This price volatility will continue to be a problem on Block Island so long as diesel remains the sole generation fuel.

Total annual costs and costs/kWh by user category (sector) are summarized in the table below:

**Table 1**  
Annual Electricity Costs by Sector  
Fiscal Year 2009

<u>Customer Class</u>	<u>Number of Customers</u>	<u>kWh Usage</u>	<u>Electricity Costs</u>			<u>Cost/kWh</u>
			<u>Non-Fuel</u>	<u>Fuel</u>	<u>Total</u>	
Residential	1,361	4,039,964	864,717	1,107,852	1,972,569	0.4883
Small Commercial	328	1,452,229	300,129	427,519	727,648	0.5011
Commercial	92	3,869,821	865,514	1,111,136	1,976,650	0.5108
Public*	<u>31</u>	<u>982,652</u>	<u>160,281</u>	<u>232,228</u>	<u>392,509</u>	<u>0.3994</u>
Total	1,812	10,344,666	2,190,640	2,878,736	5,069,376	0.4900

\* Includes the Town of New Shoreham and all other public and non-profit users

As shown in Table 1, in fiscal year 2009 the non-fuel cost to generate electricity was approximately \$2.2 million while the fuel cost was approximately \$2.9 million. This translates to a non-fuel cost of 21 cents/kWh and a fuel cost of 28 cents/kWh, meaning that nearly 60% of costs are fuel-related. However, fuel costs vary in direct proportion to oil prices and from 2008 to 2010 ranged from 20 cents/kWh to 40 cents/kWh.

The use of diesel fuel as the generation source also requires significant emissions controls to meet current EPA requirements, as well as the transport of urea to the island, which poses its own environmental risk. Despite federal regulations, diesel generators will always be a source of carbon emissions, a contributor to global climate change.

### Distribution System

The distribution system consists of six 2.4 kilovolt circuits with about fifty miles of lines, the majority of which are overhead lines. The distribution system on Block Island is outdated and inefficient, resulting in large line losses, frequent power supply interruptions, brownouts and damage to appliances and equipment. The system requires upgrading to provide more reliable service. A study prepared by CHA, Inc. (“Block Island Power Company 2009 Voltage Conversion”, August 2009) examined the costs and benefits of upgrading the distribution system to a 4.16 kV system. The benefits would be twofold: reliability would improve, reducing brownouts and concomitant damage to electronic equipment and line losses would be minimized,

reducing the amount of fuel consumed. The most recent estimate of the cost of such an upgrade was \$3.6 million, which would add approximately \$250,000 per year to costs, or approximately 2.5 cents/kWh to rates. Whether or not generation options change (i.e., cable to the mainland, installation of renewable generation), the distribution system must be upgraded.

The study only evaluated the costs of a higher voltage system, but not adding “smart” technology into the grid, or placing the distribution system underground. Smart Grid technology, a monitoring and feedback system, would allow the power provider to respond to changes in seasonal demand by reducing electrical generation in the winter months. A Smart Grid system operates within a rate structure that increases rates during periods of peak usage, providing an incentive for the consumer to moderate usage by season and time of day. However, because the current rates do not vary according to demand, implementation of the Smart Grid technology would be challenging.

Placing the distribution system underground also protects viewsheds, keeps utilities out of the high wind, ice and corrosive salt of the island environment, thereby reducing long term maintenance, and decreases the need for tree trimming. Because placing utilities underground is costly, areas with prime viewsheds should be given priority.



### **Alternatives for the Future**

Numerous studies have been undertaken searching for solutions to the high cost, fossil fuel-based electric generating system on Block Island. These include a cable to the mainland, alternative (renewable) energy generation, particularly wind and solar power, and investment in energy efficiency and conservation. None of the recommendations of these studies have been implemented, in part because of the high costs associated with them, and the few customers from which those costs can be recovered. An additional factor is that under the current ownership structure of the power company, there is little incentive to invest in energy conservation or alternative generation in order to lower electricity prices. This is because all costs are directly passed on to the customers. Therefore, consideration has also been given to public or non-profit ownership of the company, which would align the interests of the owners with the ratepayers, and provide the proper incentives to make investments that would lower electricity rates.

Decisions about generation alternatives are more complex. Alternatives such as a cable to the mainland would reduce the fuel cost component of rates, but not the non-fuel cost components. Using 2010 figures, Block Island would purchase electricity from the mainland at costs that would be in the range of 10 cents/kWh, which would be added to non-fuel costs of 21 cents/kWh. Not including the cost of the cable, total costs would be in the range of 30 cents/kWh. Based on the estimated cost of a cable in all of the studies done to date (between \$20 and \$45 million), the expense of the cable would be greater than the savings if Block Island customers alone bear the cost. Therefore, unless there is some subsidy or cost-sharing beyond Block Island, it is unlikely that installing a cable would lower costs on Block Island. Renewable generation options, such as wind and solar, have lower costs than diesel generation and would help lower overall electric rates. Due to their intermittent nature, without facilities for storage they cannot be relied upon to meet all of the island's power needs; however, a 1998 study by the National Renewable Energy Laboratory (US Department of Energy) concluded that with a mix of renewables, conservation and energy efficiency improvements, diesel generation could be reduced to 5% of total electric power generation.

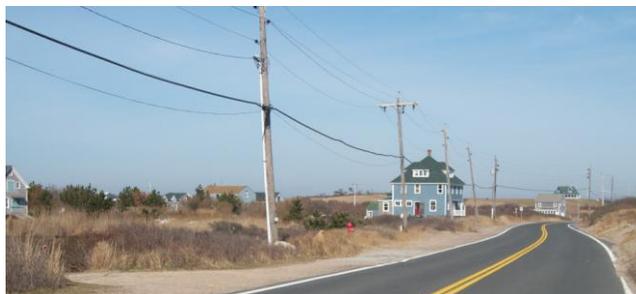
## Goals

While a centralized system of electric energy production will always be necessary, there are two specific goals that the Energy Plan endorses for Block Island:

1. Reduce and/or eliminate dependence on the Block Island Power Company diesel generators; and
2. Improve the efficiency and operation of the distribution system.

As stated in the Background section, the million gallons of diesel fuel used per year to run the power plant generators is the largest single example of energy consumption on the island, as well as the reason Block Island pays among the highest electricity rates in the nation. From both an environmental and economic stand point, the island must either reduce its dependence on the generators through alternative sources of energy production (renewables), or eliminate the generators altogether (except as a back-up) by construction of an undersea cable to connect the island to the mainland grid.

In addition, the distribution lines must be upgraded to provide increased reliability and greater efficiency by reducing line losses, an environmental as well as economic concern.



## Implementing Actions

1. Continue to actively pursue public non-profit ownership of the power company.

The Town has considered public, non-profit ownership of the electric company, either through a municipal utility, an electric co-op, or a not-for-profit corporation. Under these scenarios, the ratepayers would be the “owners” of the company. Under the current ownership structure, there is no incentive for the company to make investments in energy conservation or alternative energy generation because as a regulated utility, all costs, including a return on investment, are passed to, and paid for by, ratepayers. Under public ownership, savings would flow directly to the “owners”, adding an incentive to invest in lower cost generating alternatives. In addition, public ownership would reduce costs by eliminating taxes and profits paid to owners.

The Electric Utility Task Group (EUTG), which was created by the Town of New Shoreham to evaluate the costs and benefits of public, non-profit ownership, concluded that acquisition of the power company would reduce rates by 3 to 4 cents per kWh in the short term, and open the way for longer-term reductions as well (see Appendix B). Initial efforts by the EUTG, negotiating on behalf of the Town to purchase the power company, were unsuccessful. However, because public ownership is so closely linked with future energy efficiency and use of alternative energy sources, efforts to reach an agreement with BIPCO remain a priority for the community.

2. Investigate options for a cost-effective cable to the mainland, thereby eliminating the need for the power plant (except as back-up).

There have been numerous attempts over the years to install a cable, and none have been successful. The costs of constructing the cable are so high, it is not economically feasible if the costs are borne only by Block Island ratepayers. Estimated costs of a cable range from \$20 to \$45 million. Even at the lower cost, if the expense were borne solely by Block Island customers, it would result in higher electric prices, not lower.

The proposed Deepwater Wind project, as described in the Renewable Energy Use section of this document, would result in the construction of a cable from Block Island to the mainland to carry the energy from the wind farm to the power grid serving the entire state (with a separate cable connecting the wind farm to Block Island). The wind farm would supply all of Block Island’s electrical energy needs on an annualized basis. It would replace the existing diesel generators, eliminating the use and transport of approximately one million gallons of diesel fuel annually.

By connecting Block Island with the mainland grid, the energy component of the island’s electric bills would be based on the wholesale price of electricity on the mainland, which would lower electricity rates by 30% on average, and result in more stable rates. Current rates are based solely on the cost of diesel fuel; when oil prices increase, the energy component of the electricity rates increases proportionately, resulting in large swings in the price of electricity. This is in contrast to the mainland where oil-based generation is a small component of overall generation, and electricity prices do not change as dramatically when oil prices rise. The project would also allocate the cost of the cable across all electric customers, on the mainland as well as on Block Island.

### 3. Make use of alternative energy technology.

The fuel costs associated with diesel generation are hazardous to the island's economy. Commercial enterprises, particularly hotels and inns, face a major handicap in competing with resorts in other prime locations. The year-round grocery also faces an enormous utility cost, which it must pass on to its customers, both islanders and visitors. The rising cost of electricity for year-round citizens makes life on Block Island even more expensive.

In the absence of a cable to the mainland, the island must consider other options. It can continue to be dependent on diesel, or it can make a concerted effort to make use of available renewable options. These options have been studied in the past, and the recommendations are as valid today. According to the 1998 study completed by the National Renewable Energy Laboratory ("Preliminary Analysis of Block Island Power Company's Use of Clean Distributed Resources to Provide Power To Its Customers"), for less than the estimated cost of the cable, a system based on renewable energy, distributed generation and energy efficiency, would reduce the use of diesel to less than 5% of total generation.

The NREL study recommended a renewable system consisting of wind, photovoltaic and cogeneration, with diesel supplementation. The system described would have had a capital cost of \$8,000,000, substantially less than the cost of the cable estimated by Booth and Associates at that time. A 2007 study by HDR Engineering, Inc., ("Block Island Power Company Electric Resource Planning Study"), addressed the cost of a cable compared to diesel generation; this study similarly concluded that a combination of wind and diesel generation would be more economic than installation of a cable to the mainland.



Solar and wind systems at the North Light

The Electric Utility Task Group has studied these recommendations, with a particular focus on the transfer of ownership of the power company from private corporate ownership to a rate-payer owned utility, either quasi-municipal, or a cooperative, as discussed above. Replacement of diesel generation with renewable sources is less likely under the present utility ownership structure. The EUTG also examined the costs of wind and solar and concluded, as have the earlier studies, that introducing renewable power into the existing system will lower overall electricity costs.



While some specific efforts are described under the Renewable Energy Use section of this document, a recommendation of this section is to build on the research that has been done and to implement a municipal policy of actively seeking alternatives to diesel generated electricity. This includes monitoring advances in wind, solar and other renewable energy technology in order to find the best solution for Block Island.

4. Supplement the energy supply with community sized municipal turbine(s) and additional solar PV.

With its remarkable wind energy resources (see Renewable Energy Use section), the Town should pursue plans to develop a municipal turbine (or turbines), assuming such a facility is technically, environmentally and economically feasible. The wind facility must be sized according to the ability of the existing distribution system to absorb the wind generated electricity, and at a scale compatible with the island. Additional solar PV should be installed as well, as solar PV complements wind by providing more generation in the summer when wind power output is lower. These options, which could occur in partnership with a private entity, should be pursued under any future scenario (with or without a cable to the mainland).

5. Upgrade of the capacity of the electric distribution system.

The need to upgrade the distribution system has been thoroughly documented in this plan. Upgrading the system should take place regardless of whether the island is connected to the mainland via cable, or continues to rely on on-island generation sources. Benefits to ratepayers in terms of reduced line loss and reliable power will outweigh the costs of the upgrade. Potential benefits from a Smart Grid (see below) and placing lines underground should also be evaluated.

6. Adjust the rate structure and explore other options to encourage conservation.

Electricity consumption can be reduced by designing electric rates so that customers have the incentive to reduce use when costs are highest. Block Island has a relatively simple rate design to accomplish this, with rates higher in the summer than the off-season. In large electric systems, where the cost of generating electricity varies with demand, “time of day” rates are enacted to encourage conservation and keep costs down. Rates are highest during peak usage, for example, 6 p.m. in July, and lowest during times of low usage (middle of the night). This provides the incentive to shift energy usage, such as running a dishwasher, to off-peak periods. Smart Grid technology, discussed in the Background section, can be used to control usage and send signals to customers when prices are high. The ability to implement such a rate structure on Block Island is limited, however, because electricity generation comes from a single source and costs do not vary, but in the event a connection to the mainland via cable is made, time of use rates could be used to reduce electricity consumption.

Another issue on Block Island is the energy use associated with the vacation home rental market; electricity expenses are typically included in the weekly or monthly rental fees. This system does not encourage conservation since the owner charges a price which more than covers all such direct expenses, and the renter, in paying high fees for the privilege of vacationing on Block Island, has no incentive to conserve electricity. One option is to work with the rental agencies to develop a metering and billing system so that renters directly bear the cost of their electricity use.



## **FUEL USE ON BLOCK ISLAND**

### **Background**

#### Fuel Oil

In New England, the predominant fuels for space heating are natural gas and oil. Block Island has no natural gas system so, aside from minor use of propane, fuel oil is used for space heating. Fuel is delivered by tanker truck via the ferry; figures on consumption are proprietary and therefore not available. While most homes use propane for domestic water heating (see below), a small portion may use oil-fired water heaters or indirect water heaters associated with an oil-fired boiler.

Space heating efficiency has two distinct components – transforming the fuel into heat, and containing that heat within the space. There have been recent advances in oil boiler technology including condensing boilers which operate at efficiencies over 90%. Proper maintenance is key to keeping oil-fired equipment at optimal efficiency.

Many summer homes on Block Island are heated all winter though rarely occupied. Although this seasonal occupation is the nature of life on the island, winter heating of these homes can be done more efficiently by maintaining lower temperatures. For example, monitoring and notification through cell phones is now readily achievable, and more efficient building design can allow a home to be without heat (due to power outage or equipment failure) longer before freeze-ups occur. Technological advances allow for remote monitoring, outside temperature sensing and remote control of heating systems. These all allow the system to be shut down in above freezing conditions, operate at lower set points or allow the owner to raise the temperature prior to their arrival (via cell phone).

#### Propane Fuel

Propane is the preferred fuel source on Block Island for several residential applications including water heating, clothes drying and cooking, although cooking represents a relatively small demand for fuel overall. As with other fuels, propane prices on the island are typically much higher than the mainland. As a result, a number of residents have found it economically advantageous to install high efficiency tankless type domestic water heaters to replace storage type heaters.

Energy associated with laundry can be a significant portion of overall residential energy consumption and includes the electricity to pump water, and operate both washers and dryers, as well as propane to heat water and as a dryer heat source. Clothes drying can entail significant energy consumption and can often be replaced with outdoor line drying or inside rack drying. Most fabrics and detergent products respond well to cold water washing, thus saving more propane energy.

Propane can be used for space heating as well, although this is currently rare on Block Island. Nearly all high-efficiency boilers made to operate with natural gas can be readily modified to

burn propane at little or no cost. Because propane is a by-product of the refinement of oil and the processing of natural gas, its market price tends to track that of oil while natural gas prices tend to be more independent of oil prices (and as of early 2011, significantly lower than oil). For this reason, as well as shipping costs, propane on Block Island tends to be significantly higher in price than natural gas on the mainland. Nonetheless, high efficiency gas boilers (modulating, condensing boilers) can reach efficiencies of 95%, far higher than the efficiencies of typical oil boilers at about 80% to 85%. This efficiency could make propane space heater competitive in price to oil. Homeowners should weigh these factors carefully when choosing a heating fuel.

### Gasoline and Diesel

Block Island has one fuel vendor for vehicles and two vendors for boats, and as with other fuels, the prices are significantly higher than mainland prices. Figures for consumption of gasoline and diesel fuel are also proprietary. Fuel use for transportation on the island is limited by the size of the island itself. Traffic congestion and parking remain a summer issue in the Old Harbor area, and a jitney or shuttle between Old and New Harbors has been considered in the past, though rejected due to business concerns by taxi owners.

Nearly all people, cars and freight arrive on Block Island via the ferry. This adds an additional component of “embedded energy” to everything on Block Island that is carried on the boat. Interstate Navigation operates both conventional and high speed ferries although the high speed ferry only carries passengers and personal luggage. All cars and freight arrive via the conventional boats. A landing fee is charged all persons arriving on Block Island (by private boat as well as ferries and planes) to cover town provided services.



### **Goals**

There is one goal related to fuel use that the Energy Plan endorses:

1. Minimize the use of fuel used on the island for heating, domestic use and transportation by encouraging efficiency and shared use.

### **Implementing Actions**

1. Explore the adoption of a town ordinance that prohibits covenants restricting the use of on-site renewables by homeowners' associations.

Block Island has no municipal regulations that restrict activities promoting alternative energy production or energy conservation and efficiency, such as prohibitions on solar panels or line-drying of clothing. However, homeowners' associations sometimes enact such bans for house sites that are part of the association, usually within cluster style developments. A handful of

states have passed legislation specifically guaranteeing all homeowners a “right to dry” and/or to universally allow solar rights. In the absence of state legislation, a community can adopt an ordinance that prohibits associations from preventing these activities. It is recommended that Block Island (following legal review), adopt a town ordinance that could read as follows:

No deed restrictions, covenants, or similar binding agreements running with the land shall prohibit, or have the effect of prohibiting, solar collectors, clotheslines, or other energy devices based on renewable resources, from being installed on buildings erected on the lots or parcels covered by the deed restrictions, covenants, or binding agreements.



“Clothesline” by Kate Knapp

2. Reconsider the establishment of a jitney serving island visitors during the summer.

The establishment of a shuttle van or jitney which makes scheduled stops around the island, or at least between Old Harbor, Town Beach and New Harbor, should be considered again. It has been suggested that the service be managed by proprietors of the existing taxi services and that the operation and proceeds be shared. The jitney service would show the commitment of the island to the environment by reducing fuel use and auto emissions. It would also enhance the island experience for visitors by reducing congestion in the village area, and providing another transportation option to those arriving on foot.



## SOLID WASTE PROCESSING ON BLOCK ISLAND

### Background

#### Generation and Disposal

All of the solid waste generated on Block Island, including recyclables and sludge from the sewage treatment plant, is trucked off-island. With the exception of scrap metals and glass, all waste is disposed of or processed at the state central landfill in Johnston, Rhode Island. Waste is taken to the town-owned transfer station on West Beach Road by residents, individual businesses and private haulers, where it is stored, sorted and compacted in preparation for transport off the island. The transfer station is a solid waste facility licensed by the RI Department of Environmental Management with an operating capacity of 25 tons per day. The Town contracts with an on-island company, currently Block Island Recycling Management, to operate the transfer station and to truck the waste and recyclables to the landfill and elsewhere.



The operation of the transfer station is a “pay as you throw” system. All entities pay a disposal fee for solid waste based on weight (2010 rates for solid waste are twelve cents per pound). Residential customers do not pay a fee for recyclables (nor for waste oil), although commercial customers do (2010 rates for commercial recyclables are five cents per pound); the system therefore has a built-in incentive to recycle. As a result, the total rate of recycling on Block Island is around 23% of the total waste (by weight). Many communities in Rhode Island have a higher recycling rate, but these rates are a measure of the residential waste only. On Block Island, the recycling rate is measured against all solid waste, including commercial, which makes up approximately 90% of the total.

There are separate fee schedules for appliances (white goods) and metals, mattresses and furniture (bulky items), batteries, tires and even automobiles, all of which are disposed of at the central landfill or recycled. Construction and demolition waste is disposed of at the same rate as

the other solid waste, as is yard waste, the large majority of which consists of brush, which is chipped and stored, and when stockpiles reach a certain volume, shipped to the central landfill.

The Town has a separate services agreement with the Rhode Island Resource Recovery Corporation to dispose of all waste from the island. Under a recent contract (July 1, 2008 – June 30, 2011), RI Resource Recovery Corporation (RRC) receives a tipping fee of \$32 per ton, the municipal rate, provided Block Island does not exceed its annual municipal cap. As with all communities, the cap is based on population. Because of the substantial increase in population and activity during the summer tourist and vacation season, the RRC grants Block Island a seasonal cap adjustment allowing additional tonnage. As of FY 2010, this seasonal cap allotment is 1,391 tons; the total cap is 1,766 tons of solid waste and 28 tons of yard debris.

The operator of the transfer station serves as the Town’s agent, handling all payments to the RRC. As a result, there is no direct cost to the municipality to dispose of the waste generated on the island, with the exception of the waste generated by the Town itself (school, town hall, police and fire stations, town beach, etc). Because of the high cost of disposal, public outdoor trash receptacles are not maintained by the Town, as these would become “free” disposal for household waste.

The total tonnage of solid waste for the fiscal years 2006 to 2009 is as follows:

**Table 2**  
Solid Waste Volumes

<u>Fiscal Year</u>	<u>Refuse Tons</u>	<u>Recyclable Tons</u>	<u>Total Tons</u>	<u>Recycling Rate</u>
2006	3,014	475	3,489	14%
2007	2,709	486	3,195	15%
2008	2,465	482	2,947	16%
2009	2,041	610	2,651	23%

Source: RI Resource Recovery Corporation

### **Recycling and Options for the Future**

Block Island currently has a “diversion rate” of 50%, the fourth highest in the state. The diversion rate is the percentage of total tonnage of solid waste generated which is not disposed of at the central landfill. It is a measure of the recyclables (glass, metal, paper, cardboard), compostable waste (yard debris), and the construction and demolition debris which can be re-used or recycled rather than landfilled (a program run by the RI RRC known as “Recovermat”). The emphasis by the RRC on achieving higher diversion rates, directed at all municipalities, is driven by the need to save on landfill space. Based on an assumed quantity of 750,000 total tons per year, the RRC estimates that the current active portion of the landfill can remain open until sometime in the year 2014. When the next phase is opened, it is estimated to have a 17 or 18 year lifespan. While often the direct energy and labor costs of diverting waste is higher than

simply disposing of it in the landfill, increasing recycling is important to extending the life of the landfill. In addition, use of recycled rather than new material in any aspect of life is an inherent energy saver.

On Block Island, while there is an incentive for all categories of waste generators to separate out their recyclables, it is not mandatory, and there is an undetermined amount of recyclables that are not diverted. This is especially true in cases involving service to large numbers of the public where recyclables are mixed in with other solid waste, and the time and labor involved in removing the cans and bottles are not offset by the saving of seven cents a pound. The recyclables that remain in the waste stream and end up in the central landfill, of course, count towards Block Island's municipal cap. If the cap is exceeded, the company operating the transfer station must then negotiate with the Town for higher disposal rates.

However, the larger issue is that, regardless of the category of waste, all of it that arrives at the transfer station is taken off-island. As stated in the Services and Facilities chapter of the Comprehensive Plan:

*This costly and inefficient system should be supplemented with efforts, including the promotion and expansion of on-island recycling such as composting, that would provide for more on-island disposal of some items, and a more efficient reduction of both recyclable and other items that must be transported to mainland landfills.*

The operation of the transfer station and the handling of the island's solid waste are being done through a successful public/private partnership. This partnership can be enhanced by increasing the options for disposing of waste on-island, while maintaining the efficient role played by BI Recycling Management (or similar private company). This would keep disposal rates down for all Block Islanders, make the island more self-sufficient, potentially create on-island jobs and reduce the energy and pollution impacts associated with the present system of off-island disposal.

Along with increasing on-island disposal options, the Town must monitor the long-term efficiency and potential environmental impacts of continued use of the transfer station site. The transfer station is located on land that includes an old landfill, which is also partially within a coastal zone (as defined by a CRMC field-delineated coastal feature). The shoreline edges of the parcel have been subjected to considerable erosion in recent years, exposing long buried waste. In addition to quality of life concerns by the neighbors who complain of truck traffic, odor and wind-blown trash, there have been suggestions to move the transfer station to a more centrally located site, closer to most island residents and businesses delivering waste to the transfer station, and to the ferry for the truckers hauling waste off-island.

## **Goals**

Block Island's system of solid waste management – “pay as you throw” at a public facility managed by a private company – works well in terms of efficiency, with incentives for islanders to limit solid waste generation and maximize recycling. The major issue is the disposal of all

waste off-island, and the associated expense of transport and disposal in the central landfill in Johnston. There are three goals related to solid waste that the Energy Plan endorses:

1. Maximize the amount of recycled waste;
2. Reduce the amount of waste transported off-island by processing more of the waste on-island; and
3. Ensure that the long-term location of the transfer station and all related activities are at a site that is economically and environmentally suitable, and allows for efficiency in the transport and processing of solid waste.

Block Island's recycling rate can be improved by altering the commercial waste stream. As stated in the Background section, despite a lower disposal rate for recyclables, cans and bottles end up in the landfill because they are mixed in with general waste at their source, a problem associated with restaurants, hotels, guest houses and marinas. This can be countered by mandating recycling, increasing the financial incentive and educating island visitors.

Processing more of the solid waste on-site would include composting, making use of both compostable material that would otherwise be trucked to the central landfill, particularly brush and untreated wood, as well as sludge from the sewage treatment plant; composting options are discussed in detail in the Water Use section of this document. It would also involve research and evaluation of alternative disposal technologies. The location of the transfer station site itself should also be evaluated in terms of its long-term viability from both an economic and environmental standpoint.

### **Implementing Actions**

1. Adjust the commercial fees for disposal at the transfer station to encourage recycling.

The 2010 rates for disposal of solid waste at the transfer station are twelve cents per pound. Residential customers do not pay a fee for recyclables, while commercial customers pay five cents per pound. It is recommended that the net savings for commercial customers who recycle be increased by lowering the recyclables disposal rate and/or raising the overall rate, in order to increase the incentive for these customers to pull out their recyclables. The rates are adjusted and approved by the Town Council.

2. Identify ways to facilitate recycling.

In addition to adjustment of fees, it is recommended that the Town develop a public education program to encourage recycling. In particular, this program would be directed at renters. Another possibility is to recognize, through a certification program, those hotels, restaurants and marinas that successfully recycle.

### 3. Explore the use of other waste disposal technologies.

The handling and disposal of solid waste is a universal problem, and the use of a technology that results in volume reduction rather than land disposal is an alluring option. Incineration, the simple burning of material to reduce its bulk, has been debated on a state-wide basis in the past, but ultimately rejected due to the potential negative impacts on air quality and public health. One member of the Island Energy Committee researched alternatives to incineration and identified gasification. This technology, described in more detail in Appendix C, is the heating of carbon based material at very high temperatures in a sealed vessel, resulting in a char-type residue and the production of syngas, itself a fuel that can be used to power a generator to produce electric power, or burned directly for space heating. Gasification is a proven technology; a Massachusetts company has expressed interest in working with Block Island to develop an appropriately sized gasifier/generator. However, concern with the initial cost and the lack of working examples in other communities mandates that the Town pursue the option carefully, and in general, research all options for reducing the waste stream in an environmentally and cost effective manner.

### 4. Consider alternate locations for the transfer station.

The transfer station parcel, previously the site of a privately owned landfill (more correctly described as a “dump”), was given to the Town by the owner, Jack Gray, for continued use as a solid waste site. In the event that the Town no longer uses it for that purpose, it is to be converted (assuming proper remediation), to a public park. In addition to the environmental and public benefits of such a conversion, the relocation of the transfer station could result in a more efficient operation. It is recommended that the Town, as part of a long-term plan evaluating the transport and processing of solid waste, consider other locations on the island for the transfer station.



## WATER USE ON BLOCK ISLAND

### Background

#### Water Supply and Sewage Disposal System

A complete description of both the Town's water supply and treatment system and the sewerage system is contained in the Background section of the Services and Facilities chapter of the Comprehensive Plan. The Island Energy Committee was most interested in total consumption, and evaluating the efficiency and energy costs of providing public water and processing wastewater.

#### Water Consumption and Cost

As of 2009, there were 204 residential accounts and 59 commercial accounts within the water district (Old Harbor area). Total annual water consumption is as follows:

**Table 3**  
Block Island Water Company Users 2009

<u>Users</u>	<u>Count</u>	<u>Gallons</u>	<u>Percent</u>
Commercial	59	8,022,000	54%
Residential	<u>204</u>	<u>6,819,000</u>	<u>46%</u>
Total	263	14,841,000	100%

Only about 7% of the island residences are connected to the water system, as the majority of homes rely on private wells. Most of the commercial establishments are connected to the water system and, of course, create the largest demand during the tourist season. In addition, there are seven major commercial users, hotels and restaurants, as well as the Town Beach, which are connected but still rely on their own wells; they represent a seasonal demand of 45,800 gallons per day which could potentially be activated. In early 2011 the New Shoreham Water District was expanded to include the New Harbor area; construction was completed in June 2011 to extend the water lines to service those businesses and residences. As stated in the Services and Facilities chapter, the water system has a total capacity of 300,000 gallons per day.

The lowest consumption months are November through March, accounting for less than 20% of total annual water production. Consumption picks up in the "shoulder season" months of April, May, September and October, together accounting for about 30% of annual water production. The summer months of June, July and August typically represent half or more of total annual water use. July and August have the greatest water use; over the five year period 2005 to 2009, the two peak season months have required an average of 7.2 million total gallons, which is an average of 38% of total annual water production. On a typical summer day, water use is about 100,000 gallons per day, while on a weekend summer day it can be as much as 135,000 gallons, or more (July 4, 2009 had a demand of 158,280 gallons). The town-owned water company accounts for seasonal demand with the following variable rate structure (amended June 2010):

**Table 4**  
**Block Island Water Rates, Fiscal Year 2011**

<u>Quarter</u>	<u>Rate/1,000 gal</u>
July 1 – Sept 30, 2010	\$25.50
Oct 1 – Dec 31, 2010	\$12.80
Jan 1 – Mar 31, 2011	\$12.80
Apr 1 – June 30, 2011	\$19.40

As with any water supply system, there is a differential between the metered quantity and the actual amount of water produced, as monitored by the water company. This unaccounted for water is a result of flushing requirements, fire flow and some meter errors, as well as theft, but also leakage. Leakage includes defective hydrants, abandoned services, leaking meters, and leaks in water mains, or line loss. The unaccounted for water can vary significantly from year to year, but over the five year period 2005 to 2009, averaged nearly 6%. Leak detection and repair has been a major focus of the water company. The metering system was installed in 2001 and 2002, and consists of an automatic metering system programmed to indicate water leaks and unusually high consumption at each house or business. Leak detection surveys by a private company are undertaken as needed.



The water production (well field and Sands Pond) and treatment plant make use of state-of-the-art facilities and equipment which, like the distribution system, are monitored and upgraded as needed. Aside from employee costs, the capital replacement and debt service costs are the largest items in the water company's operating budget. The next largest single expense is that for electricity to run the treatment facilities and pumps; for the fiscal year 2010, this expense was budgeted at \$55,000 (the actual cost during FY 2009 was \$48,728) out of a total operating budget of \$670,000.

For the Block Island Water Company, total water use and emphasis on both water conservation and efficiency are necessary to continue to provide high quality public water as demand increases. The immediate concerns related to energy are the electricity expenses. The water company property on Sands Pond Road may be suitable for on-site renewable sources of energy.

For the majority of island residents who rely on private wells, water conservation is also important – to both minimize the use of electrical energy to run their well pumps, and to preserve and protect the island’s sole source aquifer. It is estimated that the 1,266 private residential wells on the island pump 46 million gallons per year (more than half of the total well water withdrawal of 83 million gallons per year on the island). As Block Island real estate values increase, and the expectations and means of home owners rise with them, more “luxuries” are being incorporated into home sites, and these often involve water and energy consumption. Irrigation of lawns and ornamental (non-native) plantings and swimming pools are two examples. In addition to the non-essential use of water, the pumps required to run the irrigation and pool filtration systems both create a large demand for electricity.

Sewage Disposal Volume and Cost

As stated in the Services and Facilities chapter, the Block Island sewage treatment plant has a capacity of 450,000 gallons per day. There are 350 sewer connections in addition to the sewage processed from waste haulers servicing on-site systems and boat pump-outs. As with water consumption, approximately half of the total annual wastewater volume treated occurs during the three summer months.



**Table 5**  
Sewage Treatment Plant Flows, 2005 – 2009

<u>Year</u>	<u>Total Gallons</u>	<u>June – Aug Gallons</u>	<u>June – Aug % of Total</u>
2005	49,560,000	23,077,000	46.6 %
2006	47,467,000	24,848,000	52.3 %
2007	46,282,000	23,333,000	50.4 %
2008	43,806,000	22,364,000	51.0 %
2009	38,484,000	18,896,000	49.1 %

July and August have the greatest demand on the sewage treatment plant; over the five year period 2005 to 2009, the two peak season months have produced an average of 17 million total gallons of wastewater, which represents 35% to 40% of the total annual wastewater flow. Similar to the water fees, seasonal demand is reflected in the sewer rate structure (amended June 2010):

**Table 6**  
Block Island Sewer Rates, Fiscal Year 2011

<u>Quarter</u>	<u>Rate/1,000 gal</u>
July 1 – Sept 30, 2010	\$26.28
Oct 1 – Dec 31, 2010	\$13.14
Jan 1 – Mar 31, 2011	\$ 6.57
Apr 1 – June 30, 2011	\$13.14

As with the operation of the public water supply system, the operation of the sewage treatment plant is burdened by its energy costs. The treatment plant, however, has two diesel generators, one on stand-by, as an alternative to purchasing electricity from the Block Island Power Company. During the summer season, the plant operators run the generators, since purchasing the fuel is about half the cost of buying electricity, and then return to the grid in late fall. For the fiscal year 2010, expenses for electricity and fuel oil were each budgeted at \$65,000; most of the use under these two categories is running the treatment plant (aside from heating and lighting the on-site buildings); the FY 2009 expenditure for electricity was \$58,792, and for all fuel oil was \$56,872. Over five recent summer seasons, the actual fuel use and corresponding direct cost to run the generators, as well as an estimate of the savings from going off-grid, is as follows:

**Table 7**  
Sewage Treatment Plant Generator Fuel Costs, 2006 – 2010

<u>Summer Season</u>	<u>Total Gallons</u>	<u>Cost/ Gallon</u>	<u>Fuel Costs</u>	<u>Total Cost*</u>	<u>Cost Savings**</u>
2006	13,256	\$2.50	\$33,140	\$42,740	\$29,106
2007	14,185	\$2.55	\$36,172	\$45,772	\$26,074
2008	15,532	\$4.29	\$66,632	\$81,311	\$39,300
2009	13,501	\$2.57	\$34,644	\$45,323	\$39,218
2010	13,414	\$2.81	\$37,693	\$48,372	\$33,994

\* Total cost to run the generators includes fuel, filters, service, labor and depreciation

\*\* Cost savings are calculated based on the total kWh produced by the generators times the equivalent cost per kWh of electricity during the summer months, minus the total cost of running the generators

Source: Superintendent, BI Water Pollution Control Facility

As shown above, the demand for fuel (a function of the volume of wastewater processed) and the actual fuel costs can vary from year to year. When determining when to run the generators and when to return to the grid, the operators of the treatment facility must monitor the costs per kWh from the Block Island Power Company (which rises during the summer season) with the cost of

diesel fuel and establish an equivalent cost per kWh to run the generators. The total cost of running the treatment facility, whether the electricity is generated on-site or purchased from the power company, could be dramatically reduced with the use of on-site solar, wind or other renewable sources.

### Sludge Disposal

Another major operating expense the Town’s sewage treatment department incurs is disposal of the sewage sludge, a significant part of the community’s annual solid waste volume, with its associated energy costs. For the fiscal year 2010, this expense was budgeted at \$60,000 (the actual cost during FY 2009 was \$53,968). The following is a summary of the total tonnage of sludge and its disposal costs over the past five years:

**Table 8**  
Sewage Treatment Plant Sludge Disposal, Fiscal Year 2005 – 2010

<u>Fiscal Year</u>	<u>Total Tons</u>	<u>RIRRC* Costs</u>	<u>BIRM** Costs</u>	<u>Total Costs</u>
2005	367	\$18,606	\$37,800	\$56,406
2006	383	\$19,412	\$37,800	\$57,212
2007	409	\$28,095	\$39,600	\$67,695
2008	376	\$21,028	\$36,000	\$57,028
2009	335	\$20,410	\$34,200	\$54,610
2010	338	\$21,999	\$34,200	\$56,199

\* RI Resource Recovery Corporation

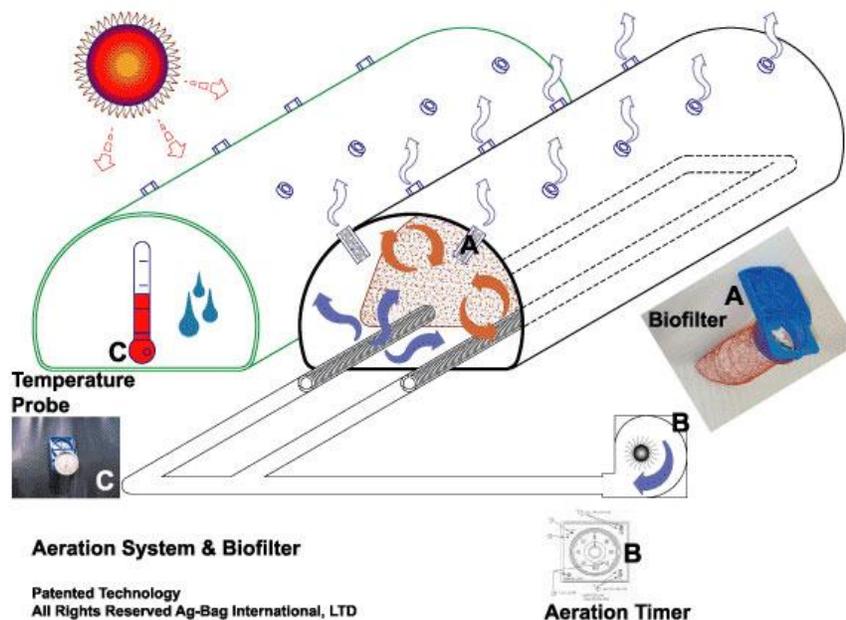
\*\* Block Island Recycling Management

### **Composting and Options for the Future**

As with other components of the solid waste stream on Block Island, options exist for on-island disposal of the sewage sludge; in this case as part of a composting facility. The sludge (biosolids) generated as part of the sewage treatment process is dewatered through a solids handling facility at the treatment plant. Once a 30 yard roll-off dumpster is filled, it is transported to the central landfill for disposal. However, Block Island’s sludge is ideal for composting as it has negligible heavy metals content due to the lack of an industrial waste stream on the island.

Composting occurs when the dewatered sludge is mixed with a bulking agent, such as wood chips or wood ash, to balance the moisture content and achieve an optimum carbon to nitrogen ratio, and the mixture decomposes in a high temperature, enclosed environment. This cycle takes about 8 weeks, followed by 4 weeks of curing (lessening of microbial activity and cooling). The resulting biosolids compost (“Class A” per RI Department of Environmental Management) can be used for ornamental horticulture, turfgrass, agricultural crops and land reclamation.

At various times over the years, the Town has considered on-island composting. In 1991, an aerated pile method was considered, but not pursued, since the Town was subsequently allowed to dispose of its dewatered sludge in Johnston, ultimately easier and cheaper to do. The Town considered composting again in the mid-1990's, using a combination of sludge and wood ash, but this was not pursued due to stockpiling, permitting and cost issues. A comprehensive compost study was done in 2001 by a professional consultant, EnTech Engineering Inc. This study considered the use of compostable waste and construction debris as well as the sewage sludge. It recommended a bag system, which is essentially an in-vessel aerated pile within 200 foot long, tube-like plastic composting bags. Mixed compostable material is placed into a hopper, and a hydraulic ram forces the material into the bags. Perforated pipe is also placed within the bags during the filling procedure to allow aeration of the pile. Produced by the company Ag-Bag Environmental, the bags are referred to as EcoPods (registered trademark) and can process about 150 cubic yards of material during one cycle. The Ag-Bag system is just one of several technologies available to accomplish in-vessel composting.



Source: Ag-Bag Corporation

A follow-up to the EnTech study was done in 2010 by David Simmons of the Water and Sewer Department, who used the same economic model with updated figures. Two scenarios were evaluated, one involving only the sewage sludge mixed with wood chips, the other including compostable solid waste. In each scenario, wood chips were added to the sludge volume at the desired ratio of 2.5 to one (by volume), but in the second scenario, additional solid waste, roughly equivalent to the volume of sludge, was included as part of the compostable mix. Only the second scenario showed a net savings – the savings in tipping and transporting fees and sale

of compost are greater than the operating and maintenance expenses and loss of disposal fees at the transfer station. Changing some of the parameters would show a more positive result, meaning an on-island composting facility, with or without the compostable solid waste, is still viable with creative financing or partnerships. Creation of on-island employment is another potential benefit to be weighed.

Other issues to consider are designing the site to accommodate the composting technology and obtaining the necessary permits and approvals from the RI Department of Environmental Management. There must also be a market, preferably on-island, for use of the resulting compost, which is estimated to be about 260 tons per year with sludge only, and about 390 tons per year including compostable solid waste.

## **Goals**

In regard to the public water supply and wastewater processing systems, the Energy Plan endorses the following goals:

1. Maintain, and improve where feasible, the efficient operation of the water and sewage treatment plants on Block Island;
2. Minimize public water use through conservation; and
3. Reduce or eliminate the sludge transported off-island through composting.

As presented in the Background section, the volumes handled in both systems have a seasonal variation, with the user rates adjusted accordingly. Nonetheless, the costs to power the treatment and pumping facilities are significant items in each department's operating budgets.

Water conservation efforts have been and always will be a priority for the island and for the BI Water Company, which deals with ever increasing summer season demand.

As with the disposal of other solid waste off-island, the shipping of dewatered sludge to the central landfill uses energy and is an expense to the community. Whether it is done in conjunction with biodegradable solid waste or not, the composting of sewage sludge should be pursued until an economically and environmentally viable system can be established on-island.

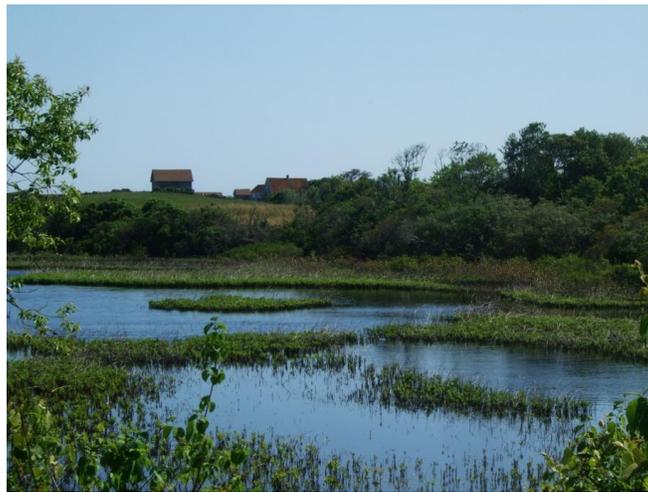
## **Implementing Actions**

1. Offset the energy costs of the water and sewer plants by establishing on-site renewable sources of energy.

As discussed in the Background section, the electricity costs to operate both the water and sewage treatment plants are significant portions of the operating budgets. Establishment of on-site alternative sources of energy, like the solar panels at the Town Hall (see Renewable Energy Use section), would provide a direct benefit to the Town and the ratepayers in the respective districts.

2. Establish a water conservation education program.

An education program, directed at both water district users and individual well owners, should be developed to promote water conservation on the island. A description of the sole source aquifer, the seasonal demands on the water system and the inter-relationships between water and electricity use should all be addressed as part of the program. Information on use of recycled greywater (wastewater generated from domestic activities such as laundry, dishwashing and bathing) for onsite landscape irrigation could also be included in the program. One aspect of the program could be targeted specifically to homeowners, and another to businesses.



3. Evaluate the feasibility of an on-island composting demonstration project using yard waste with sludge from the treatment plant.

Given the uncertain economic benefits of composting sludge from the sewage treatment plant, along with wood debris and possibly compostable material in the general waste stream, a pilot compost study would provide valuable data in terms of technology, logistics, cost and marketing of the compost. It is recommended that the Town establish a pilot composting project either at the sewage treatment plant or the transfer station, utilizing the bag system described in the Background section.

4. Pursue a regional composting facility in conjunction with other communities in Washington County.

Another recommendation is for the Town is to work with the other county communities, through the Regional Planning Council, to combine their compostables in a single facility. This would result in more efficiency (economy of scale) in terms of handling and marketing.

## RENEWABLE ENERGY USE ON BLOCK ISLAND

### Background

The use of alternative or renewable energy sources has an active history on Block Island. Individual property owners and the Town as an entity have taken steps to avail themselves of both solar and wind power. Reducing the use of fossil fuels at the power company has always been of concern for both economic and environmental reasons, and more recently, these considerations have led to a growth in the use of alternative energy sources.

### Wind Power

Block Island has the best wind resources in the state due to its offshore location. Wind as a renewable resource is classified according to wind power which is a function of wind speeds, typically measured at a height of 50 meters (164 feet). Wind power potential as mapped (US Department of Energy with data provided by TruWinds Solutions) shows that the majority of the island has a wind power class of 4 (defined as “good”), which is represented by a wind speed of about 16 miles per hour. Some areas in the south and southwestern portion of the island have a wind class of 5 (defined as “excellent”), which is a wind speed of about 17 to 18 miles per hour. The coastal and bay areas of the state have “fair” and “marginal” wind resources, while the rest of the state has a wind power class described as “poor”.



In 1979 an experimental 200 kW turbine was constructed at the Block Island Power Company property. It was one of four demonstration projects funded by the Department of Energy and designed by the National Aeronautics and Space Administration, at a cost of approximately \$2 million. It consisted of a two blade horizontal axis rotor 125 feet in diameter on a pipe truss tower 93 feet in height. The turbine generated enough electricity over its short tenure to power about 100 island homes. At the end of the project the turbine was given to BIPCO. The blades were removed in 1982 and the power company dismantled the tower in 1987.

Modern residential wind turbines have been in use on the Island for nearly 30 years, accompanied by controversy over noise and visual impacts, as well as safety concerns. Restrictive zoning regulations eventually followed (see Local Zoning in Local and State Energy Regulations section of this document).

As of 2011, there are four privately owned 10 kW Bergey wind turbines on the island, each generating between 10,000 to 14,000 kW hours per year, enough to supply one household's electricity needs. Three are connected to the grid with inverters which allow the meters to run in reverse during the times when the turbines are generating more electricity than the owners can use. The power company buys the excess electricity at a rate calculated to be the "avoided cost". The avoided cost is distinct from that of net metering; it is essentially the money saved by the power company from not having to generate power otherwise consumed by the household, accounting for such factors as fuel cost, generated line loss and environmental costs. The other 10 kW turbine is off the grid entirely; the wind turbine charges batteries, which power the house through an inverter. Several other residences on the island have wind turbines.



There is also a 1 kW turbine at the town-owned (off the grid) North Lighthouse. In combination with a 500 watt solar panel on-site, there is enough power (200 kWh per month) to run the lighthouse and visitors' center, making the generator necessary only as a back-up.

### Solar Energy

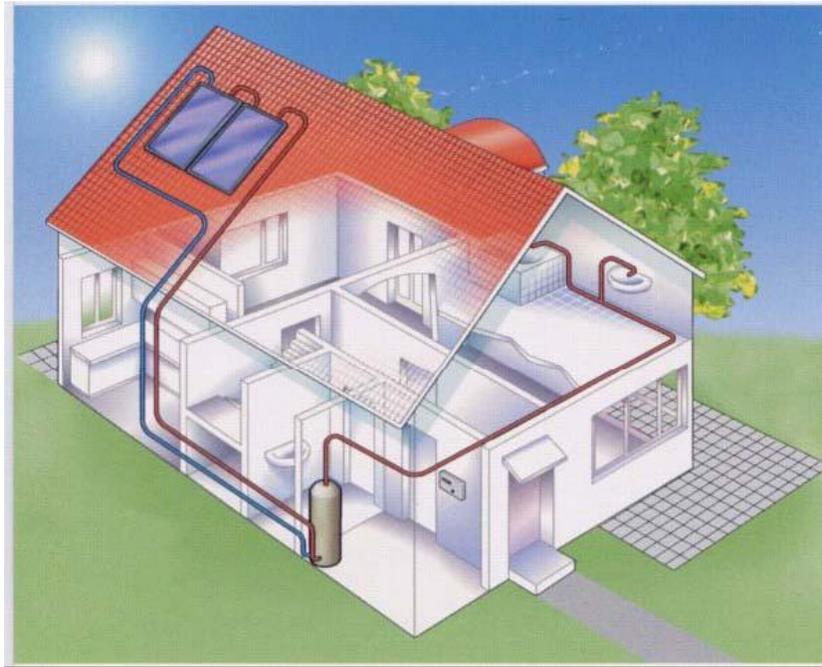
Efforts to make use of solar energy for hot water and electricity generation have been undertaken on Block Island over the past three decades. In general, the utilization of solar energy on the island has fluctuated with the economy, energy prices, available tax credits and target grant programs. In the late 1980's and early 1990's local businessmen involved in renewable energy systems organized an annual energy fair to help promote solar (and wind) energy.

Unquestionably, the largest boost to solar energy on the island was the Block Island Renewable Energy Grant program (1999-2002), funded through the Department of Energy, which was written and administered by Chris Warfel of Entech Engineering, with support from the Town. Many photovoltaic (PV) and solar hot water systems were installed or enlarged as a result of this grant program; the two largest PV systems (around 5 kW each) were installed at the Block Island School and the Post Office. Solar contractors from around New England bid on installations.

### Solar Energy/Water Heating:

A typical solar domestic hot water (DHW) system consists of flat plate collectors, a panel usually about 32 square feet in size, a storage tank, a small pump used to circulate water or glycol through the panel, and a small PV panel or differential controller to turn the pump on and off following the sun. The sun's rays hit the collector, and the absorber plate inside the collector heats up the fluid (water or glycol) which is pumped slowly through the absorber's tubing. If glycol is used as the heat exchange medium, a heat exchanger is needed to transfer the heat to the water in the storage tanks. Typically, the solar DHW system acts as a preheater to the

conventional DHW system; the hot water from the top of the storage tank is fed to the conventional system.



Source: EnTech Engineering

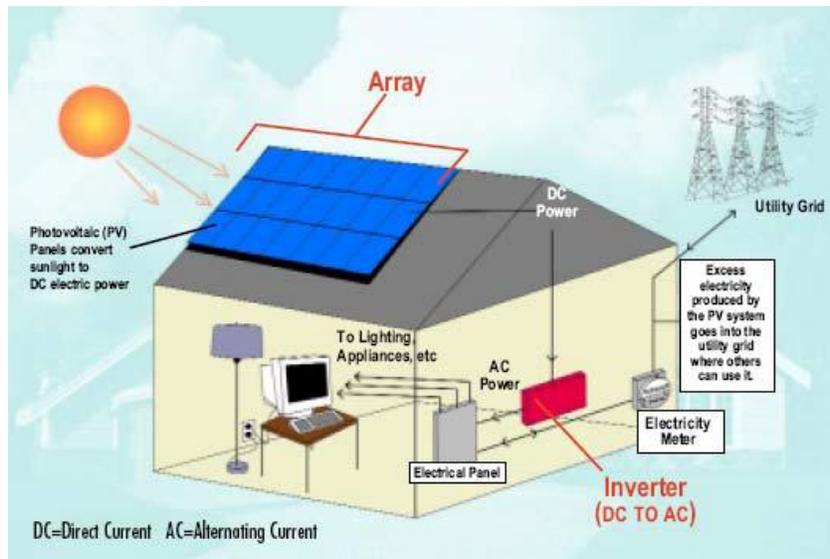
The first solar domestic hot water (DHW) systems were installed on Block Island by a retired engineer, Vernon Bowles, who summered here. His company, Solar Trap, fabricated panels and installed systems in the early 1970's through the late 1980's. His systems utilized flat plate collectors, large stone-lined storage tanks, and small AC (alternating current) pumps that circulated water through the collectors. Solar Trap installed approximately ten systems on the island, most of which are still operating, although with replacement panels.

Local plumbers installed several solar hot water systems in the late 80's and early 90's, including two systems that used Freon as a heat exchange medium. One island-based business, SolarTech, installed several pool and spa heating systems, as well as different types of DHW systems. The majority of the DHW systems used glycol as a heat exchange medium, and were designed for year-round use.

On Block Island, as elsewhere, a DWH system consisting of a 64 square foot panel area (two 4 foot by 8 foot panels) can supply 80% to 90% of a summer residence's hot water needs and 60% to 70% of an average year-round residence's needs. Systems installed for summer homes work best by incorporating a small space-heating loop to act as a heat dump (to prevent the glycol from overheating) during the times the houses are not occupied. There are more than thirty such solar hot water systems in place on the island, with potential for more limited only by an individual's ability to purchase such a system and provide suitable land or roof area.

## Solar Energy/Photovoltaics:

A photovoltaic panel works when the sun's rays hit the panel, which converts the sun's energy to DC electricity. The electricity is stored in batteries, and the DC current from the batteries then runs through an inverter which changes the current from DC to AC, where it can then be used in the home or sent into the grid.



Source: Entech Engineering

Since the 1980's photovoltaic systems have radically evolved. Today's systems are designed to integrate with the electric utility, with or without a battery backup. New generation charge controllers can extract about 20% more power from the PV panels than the earlier systems. There are also many more choices for racking (mounting) systems for both ground and roof mount, as well as multiple choices for the PV panels as the solar industry expands, both domestically and internationally.

On Block Island, a modest-sized PV system of 2 kW can supply at least half the power for an average energy efficient house (which makes use of Energy Star appliances, fluorescent lighting, water conserving toilets, etc.). In the early 1990's, the first solar powered rental house was built, with a large battery bank and PV system rated over 3 kW. The system was designed and installed by Solar Associates, a solar architecture firm from Boston. In 2009, a 12 kW system was installed at the Town Hall for a total cost of \$98,500, the majority of which was funded through a grant from the RI Economic Development Corporation. As of 2011, it is producing an average of more than 1,000 kWh per month, about 20% of the building's total annual energy usage; the estimated savings to the Town are about \$5,500 per year, although this savings can vary depending on the electricity costs (as described in the Electric Power Generation and Distribution section).

As of late 2010, there are approximately twenty-five smaller residential solar panel systems in place on the island.



### Biodiesel

Another renewable energy source (other than use of wood for heating individual residences), which has potential on the island – as it does just about anywhere else – is biodiesel. Biodiesel is an alternative fuel that is produced from acceptable feedstocks, such as vegetable oils or animal fats, by means of a chemical process called transesterification. It contains no petroleum, but rather is blended with either petrodiesel for operating vehicles, or heating oil for home or business use. It is a biodegradable clean burning fuel that is non-toxic, free of sulfur and aromatics, and suitable for sensitive environments.

Biodiesel is distinct from ethanol, which is derived primarily from corn grown for the purpose of conversion to a fuel source for use in gasoline powered engines. Biodiesel blends are labeled according to their percentage of biodiesel; a B5 label would be a blend containing five percent biodiesel. Biodiesel blends of 20% and below will work in any diesel engine; it is considered a “drop-in” technology without the need for modifications. Retail pumping stations with biodiesel blends are not widespread, but becoming more common. Its use as a heating fuel, or “BioHeat” (trademark of the National Biodiesel Board), is available in varying blends, again with up to 20% considered acceptable for most furnaces.

While a variety of oils can be used to produce biodiesel (as well as harvested algae), on Block Island there is interest in, and some current collection of, restaurant waste oil. Typically, a biofuels company collects waste oil from restaurants in bins provided at no charge. A restaurant owner gains by not having to dispose of the waste oil, and by contributing to a renewable energy source. The oil is taken off island, where it is processed, blended and sold by oil distribution companies that partner with the biodiesel producer. A representative of a Rhode Island biodiesel company who visited the island to talk to the Island Energy Plan Committee estimated that Block Island restaurants produce about 19,000 gallons of waste oil, the bulk of which is produced during the tourist season.

## Wind Energy Proposals and Options for the Future

### Off-Shore Wind Farm

Since 2009 Block Islanders, and the state as a whole to some extent, have been engrossed in the potential for an offshore wind farm, three miles southeast of Block Island. The wind farm, as proposed by a New Jersey company, Deepwater Wind, LLC, would consist of up to eight turbines producing a total of 30 megawatts of power, located approximately three miles offshore. Each would rise 450 feet above the water, collectively visible from a variety of locations on the island, particularly the south shore. The project includes the construction of a cable to Block Island from the wind farm, and a cable from Block Island to the mainland, in order to transmit the wind farm power to the mainland, thereby providing the much desired connection to the mainland grid, and allowing electricity to flow to the island based on actual demand.

Deepwater Wind, selected by the state Department of Energy Resources through a competitive bidding process to develop the wind farm, proposed to construct these turbines as a “demonstration” wind project, to be followed later by a major wind farm consisting of two hundred such turbines producing a total of 1,000 megawatts further offshore, about 15 miles east of Block Island and south of the mainland.



In June of 2009, then Governor Carcieri signed a bill that requires the electric utility, National Grid, to negotiate long-term contracts with renewable energy providers, including purchasing up to 150 megawatts of power from utility scale off-shore wind facilities. However, a 20 year purchase power agreement (PPA) in which National Grid would purchase energy from Deepwater at 24.4 cents per kilowatt hour was rejected by the Public Utilities Commission (PUC) as not commercially reasonable. Because of the State’s interest in promoting and developing an offshore wind industry, the legislature adopted new legislation mandating the PUC to reconsider the PPA under different terms and, following another set of public hearings, the agreement was subsequently approved in August 2010. This decision was appealed to RI Supreme Court, which ruled in favor of the purchase power agreement in July 2011. Deepwater Wind continues to advance the project, stating their plans to begin commercial operation in 2014.

The necessary involvement of a number of federal and state regulatory agencies in offshore wind farm development coalesced in the development of an Ocean Special Area Management Plan (Ocean SAMP). The SAMP, a coastal management and regulatory tool, was adopted by the RI Coastal Resources Management Council in October 2010 after a two year study that looked comprehensively at the state and federal waters off Rhode Island. Much of the work was done by researchers and scientists at the URI Graduate School of Oceanography, with considerable public outreach. The goal of the plan, the first of its kind in the country, is to determine the best balance of ecology and fisheries, transportation, recreational, and energy infrastructure uses in the specially mapped study area (1,467 square miles including portions of Block Island Sound, Rhode Island Sound and the Atlantic Ocean).

Among the policies and recommendations that will guide the CRMC in achieving a balanced and ecosystem-based approach for the development and protection of the SAMP area is a “Renewable Energy Zone”. This zone is a two kilometer wide area just inside the boundary delineating state waters south and east of Block Island. The zone extends for approximately 18 kilometers and lies just outside a marine navigation area to the east of the island. Not included in the Ocean SAMP is a formal voice for the Town of New Shoreham in the event of development within these waters; the Town should be consulted whenever additional wind turbines, or any offshore energy development, is proposed within view of the island.

#### On-Island Municipal Wind Turbine

Independent of plans by the state to pursue offshore wind resources on a large commercial scale, the Town is evaluating the option of an on-island municipally owned turbine, or turbines. Zoning to allow such use at the site of the transfer station was adopted in December 2009 (see Local Zoning in Local and State Energy Regulations section below), and the Town has sought the services of energy professionals to evaluate the feasibility of erecting a turbine with production capacity up to 600 kW, which would connect into the BIPCO distribution system.

The principal motivating factor in considering a Town-sponsored utility-sized turbine, is the significant electricity costs to operate town buildings, including the school. The Town spends on average \$340,000 per year on electricity for all of its buildings, with the school accounting for almost a third of that. With the addition of an average of \$48,000 to run the generators at the sewage treatment plant on a seasonal basis, the Town has an annual electric energy expense of close to \$400,000 for its buildings (including pumping stations and street lights). Shown in Appendix D is the annual energy consumption and cost by various town accounts for fiscal years 2009, 2010 and 2011.

The Town is also motivated by a desire to use renewable energy in order to reduce its carbon emissions, and take advantage of an available resource – the substantial wind power on the island. While the community is not united regarding the establishment of the municipal turbine or its best location, one purpose of the professional evaluation is to review various available sites on the island that would be technically suitable for a wind turbine of this size, and to weigh the benefits with the possible negatives and initial costs.

In addition to a location that is suitable for various reasons – proximity to the distribution system, compatibility with neighboring land uses, suitability of soils, clearance from wind impediments and aviation patterns associated with the Block Island Airport, and minimal environmental impacts – the evaluation must consider the relationship with BIPCO, and the need to “dump” the excess energy generation which would likely occur, at least during the winter season when wind power is greatest, as well as the need to upgrade the capacity of the power lines. A financial analysis will be necessary to evaluate all the costs associated with the turbine as compared with the longer term energy cost savings. Various options for funding must also be considered.

## **Goals**

A major aspect of any community’s energy plan is the use of alternative energy, principally related to electric generation. In this area, the Energy Plan endorses the following:

1. Achieve maximum use of renewables on Block Island, particularly wind and solar;
2. Explore use of other renewable energy sources (biofuels); and
3. Establish a climate of progressive energy policies and programs.

To achieve the maximum use of renewable energy by both the private and public sectors, the Town must foster an environment that encourages such use. This can be done through regulatory and tax programs, and by actively seeking municipal use of alternative energy sources through grants and other financing programs, including private public partnerships.

## **Implementing Actions**

1. Complete a feasibility study for the establishment of one or more municipal turbines to connect with the on-island electrical distribution system.

The establishment of one or more community sized municipal turbines to offset the electrical energy expenses of operating the town buildings is a specific recommendation of this plan (see also Implementing Action #3 under the Electric Power Generation and Distribution section). However, the actual technical, environmental and financial feasibility of an on-island turbine system cannot be determined without study by the appropriate professionals to evaluate suitable locations, connection to the island distribution system, and cost and funding options.

2. Establish renewable energy systems at the water and sewer plants and all feasible municipal locations.

This recommendation complements Implementing Action #1 under the Water Use section of this document.

3. Support biodiesel production by allowing biodiesel producers to provide a waste collection bin for edible oils at the transfer station for use by all transfer station customers.

Biodiesel production is underway in Rhode Island and there is interest in collecting the suitable waste oil on Block Island. It is recommended that a waste oil collection bin be established at the transfer station, to provide a voluntary program for disposal. This will allow users who otherwise do not have their edible waste oil collected to dispose of it at no expense, while providing the biodiesel producers with another source. While the Town itself would not be directly involved in any transactions, the collected oil would represent waste otherwise landfilled. In addition, the Town would be promoting the production of a renewable energy source.

#### 4. Encourage use of residential bulk purchasing for PV and solar hot water systems.

A successful strategy making the purchase and installation of solar equipment more affordable is the formation of a co-operative. Many communities have done this, with or without the support of local government. One very successful example of a grass-roots co-op is the Mount Pleasant Solar Cooperative in Washington DC., which started with a small group of committed individuals seeking to reduce their dependence on fossil fuels. Today, the Mount Pleasant Co-op serves as a mentor for other communities with the same goals:

- \* Bulk purchase of solar equipment to reduce cost
- \* Uniformity of equipment for easier maintenance
- \* Relationship with a reputable local installer
- \* Creating local jobs
- \* Providing a financing mechanism

Municipalities can facilitate lower cost financing for property owners wishing to install solar systems by forming a “Sustainable Energy Financing District” (Diven and Price, “How Solar Financing Works”, March 2010). An Energy Financing District provides loans to property owners without large down payments or high financing costs by means of an assessment levied on the property. The re-payment of funds used for renewable energy projects are linked to owners’ property taxes. A municipality may issue bonds secured by the property assessments to raise money for additional loans, or to access special development funds. One advantage is that the assessment runs with the property and does not need to be paid off when the property is sold. Also, there is little upfront cost for the owners, and because the loan payments are tied to property taxes, the interest is tax deductible.

It is recommended that Block Island set up an energy co-operative, with municipal support, including a financing program, for the bulk purchasing of solar and other alternative energy systems.



## **ENERGY EFFICIENCY AND CONSERVATION EFFORTS ON BLOCK ISLAND**

### **Background**

Because of the price of electricity, it is assumed most island residents are conservative in their use of electric power, and attuned to the use of energy efficient lighting, low-flow plumbing fixtures, and energy efficient appliances, although that cannot be accurately documented. The Block Island Residents' Association also sponsors residential energy audits on a periodic basis.

### Municipal Buildings Energy Audits

On behalf of the towns and school districts which make up Washington County, the Washington County Regional Planning Council (WCRPC) applied for and received funding under the federal Energy Efficiency and Conservation Block Grant program, an energy initiative of the American Recovery and Reinvestment Act of 2009, to undertake a series of energy audits of, and improvements to, municipal and school buildings through performance contracting.

Performance contracting is a system by which a community can install energy efficient equipment and systems into their buildings, with no upfront costs, by utilizing the services of an energy services company (ESCO). Over a several year period, the savings in energy expenses pay for the costs of energy saving improvements (such as lighting fixtures, insulation, heating and cooling control systems, installation of renewable energy systems). The ESCO undertakes the audit, recommends the energy saving projects, assists with financing, oversees the work, and guarantees the savings.

The WCRPC is responsible for selecting and negotiating with the energy services company. This regionalized effort (involving a few municipalities outside of Washington County as well) gives the Town the opportunity to take advantage of the volume purchases available to the ESCO in serving multiple clients, as well as the expertise of a firm with extensive experience and resources in the energy field. Each town has a separate contract for their specific buildings. Block Island has selected the following buildings for energy audits and potential energy savings: the school, town hall, police station, library, water company and sewer plant.

As part of this process, the Town has submitted large amounts of energy consumption data in the form of utility bills and previous energy audit information to the WCRPC, for use by the selected energy services company. The audit and installation of recommended improvements is expected to be completed in 2011.

### Residential Energy Audits

The Block Island Residents' Association promotes residential energy audits to help year-round islanders deal with high heating bills. The most recent program, initiated in the summer of 2010, is funded through the RI Office of Energy Resources. Under the program, residents who heat with oil or propane can request free energy audits through the National Grid's EnergyWise program. The residents are then eligible for a 25% rebate of the total cost of any energy efficient improvements recommended by the audit (maximum of \$2,250 per home). The improvements

include weatherization, installation of programmable thermostats, and the replacement of older water heaters and home heating systems. Participation in the program on Block Island is modest.



## Goals

In terms of conservation, a critical component of any community energy plan, the Block Island Energy Plan endorses the following:

1. Maximize the energy efficiency of all municipal buildings; and
2. Encourage energy efficiency and conservation efforts by residences and businesses.

An explicit goal of the Energy Plan is to achieve maximum energy efficiency of all town buildings on the island, particularly through the energy audit and performance contracting program. The Town should also work towards an energy conservation program that assists private building owners in reducing waste and achieving energy efficiency.

## Implementing Actions

1. Complete the town building audits and make necessary improvements.

The energy audits for the school and all municipal buildings will identify specific improvements to reduce energy loss and improve the efficiency of heating, cooling and lighting systems. When the audit program is completed, the Town will be presented with these improvements and their costs. Because the capital expense will be off-set with the long term energy savings and because the Town should be a role model for energy efficiency and conservation, the energy and audit program should be fully implemented.



2. Establish an on-going residential educational program.

The residential audit program of recent years has had only moderate success. The audit program should be encouraged, but as a specific recommendation, it may be better to focus on education. An educational program directed at both residents and renters could include the distribution of informational packets which focus on all energy subjects discussed in this plan – electricity use, water use, and recyclables.



While island residents may have above average energy conservation habits, many homes are occupied by summer renters on vacation. As rents usually include utilities, vacationers are likely to use more energy. Realtors can play a role in building public awareness by providing educational material to renters. Billing renters separately for utilities consumed during their stay could make renters more aware of the island's unique energy situation, and provide an incentive to conserve. (See Implementing Action #6 under the Electric Power Generation and Distribution section).

# LOCAL AND STATE ENERGY REGULATIONS AND POLICIES

## Background

### Local Zoning

Local zoning regulations relating to alternative energy systems are limited to those governing Wind Energy Conversion Systems (WECS). Regulations to locate and mitigate impacts of individually owned turbines in residential areas, in the range of 1 to 10 kW in size, have been in place for a number of years. The allowable size of the turbine is a function of its placement on the property and resulting distance to the closest property line. There are general site standards and visual and noise standards, but the ordinance is written so that if any standards cannot be met, the property owner can request approval of the WECS through the special use permit process. Such approval requires that “*any adverse effects of the proposal are outweighed by countervailing public benefits.*”

The setback requirements have served as a disincentive for the use of residential turbines. For example a 10 kW turbine requires a minimum setback of 300 feet from all property lines. This translates into an area requirement of at least 7 to 8 acres, depending on parcel shape. In addition, a turbine of this size is limited to a 62 foot tower and 25 foot blade diameter. There are less restrictive setback and dimensional specifications for turbines with lower power ratings, but a 3 kW turbine still requires a minimum lot area of 3.5 to 4.5 acres. The tower height restrictions also mean that the potential power output is reduced, since the turbines are more efficient at greater heights because of the increased wind speeds.

More recently, the Town provided for the establishment of a utility WECS within a newly established Public Utility Zone, which at the time of this writing is confined to the parcels that make up the Town-owned transfer station on West Beach Road. A utility WECS is specifically limited to municipal or general public use, and is to be part of the island electrical power production and distribution system, or if a cable to the mainland is constructed, to be integrated into the public grid system.



Within the new PU Zone, a Utility WECS would be allowed by special use permit, but would be limited in tower height to 180 feet and in total height to 265 feet, measured with the blades in motion, thereby meeting the general characteristics of a 600 – 700 kW machine. Site plan review is required by the Planning Board. A specific application for a wind turbine requires detailed specifications on the turbine as well as an evaluation of noise, visual impact (including visual representation of the turbine from various locations on the island), flicker (shadows caused by sunlight passing through moving blades) and other environmental impacts. The zoning regulations do not address residential turbines over 10 kW in size or commercial turbines in general.

### State Energy Program and Policies

Through the American Recovery and Reinvestment Act of 2009 (ARRA), there are a number of funding options relating to energy. With a grant from the Energy Efficiency and Conservation Block Grant Program (EECBG), the WCRPC is coordinating the performance contracting program (municipal building energy audits).

These programs are administered through the Rhode Island Office of Energy Resources (RIOER). RIOER was established to promote energy efficiency and renewable energy in the State of Rhode Island. It offers programs to assist residents, businesses, municipalities and institutions with their energy needs.

A State Energy Program is also funded through ARRA (grants provided to the state from the US Department of Energy). The State Energy Program (SEP) includes funding in several categories. Among others, these include energy code training being undertaken by the RI Building Code Commission, a RI Green Buildings Public Initiative, a competitive loan and grant program for renewable energy project development (RI Non-Utility Scale Renewable Energy) and funding to expedite development of utility scale offshore wind projects (Deepwater Wind).

### State Energy Plan

There is currently a State Energy Plan which is a component of the State Guide Plan (Guide Plan Element 781). As of 2011, numerous state agencies, including the State Division of Planning, are working on a complete revision of the energy plan, which will include a set of terrestrial wind siting guidelines. Local comprehensive plans must be consistent with all element of the State Guide Plan. Upon completion of the update, energy issues will be part of the comprehensive planning process in each municipality.

### **Goals**

As stated above, the Town must support alternative energy through its regulatory environment. The Town must also keep abreast of what is happening on the state and federal level in terms of policies, programs, funding and technology changes in the renewable energy industry. The Energy Plan endorses the following:

1. Review and update local regulations to support alternative energy programs and energy conservation; and
2. Remain up to date on state energy policies and programs.

### **Implementing Actions**

1. Amend the zoning ordinance to reflect current technology for individual and utility WECS.

In order to remove the current disincentive to establishing WECS on individual properties, it is recommended that the relevant sections of the zoning ordinance be reviewed and amended as needed in regard to the setback and lot area requirements, as well as turbine height. In particular, height limits should be reconsidered to reflect the current technology and efficiency for smaller scale turbines (1 kW to 10 kW), and for utility WECS. The regulations should also address turbines larger than 10 kW.

2. Amend the zoning ordinance and other town ordinances with respect to renewables, as needed.

The dimensional standards contained in the zoning ordinance, particularly those for the residential districts, should be reviewed and adjusted so disincentives to locating renewable systems, particularly solar systems, are removed. For example, amendments to the zoning ordinance could include:

- \* Excluding solar systems when calculating lot coverage
- \* Reducing minimum setbacks for solar systems
- \* Allowing solar electric, solar hot water and small wind systems to be placed over a leach field as long as the anchoring design does not interfere with leach field performance

3. Establish net metering requirements that apply to Block Island.

Net metering programs are designed to encourage investment in renewable energy systems by electric utility customers. Customers who have installed renewable energy systems can obtain credit for electricity produced in excess of what they use. Because renewable systems produce power that is intermittent in nature, there may be times when excess power is produced and fed back to the utility. At such times, the customer's meter will run backward, with credit given for that amount of electricity. For example, if a customer has a system that produces 1,000 kWh in a month but consumes only 600 kWh, the excess 400 kWh will be credited to the customer's bill in the following month, generally at the retail rate.

Rhode Island enacted legislation in 2006 (amended in 2009 and 2010) mandating that all utilities in the state, with the specific exemption of Block Island Power Company and Pascoag Electric, offer net metering. The updated legislation also established that towns and some non-profit entities be allowed to take advantage of "virtual" net metering, allowing excess electricity generation to be used to offset consumption for up to ten different accounts. For example, a town with a renewable energy system installed at its town hall can use the excess power to offset

electricity consumption at other municipal sites. The Public Utilities Commission is responsible for establishing the regulations governing net metering.

The state regulations limit the aggregate capacity eligible for net metering to 2% of the utility’s peak load, and limits individual system sizes to 3.5 MW for municipalities and 1.65 MW for all other systems. These limitations are placed because payments at the retail rate are, in effect, a subsidy from the utility’s other customers to the renewable energy owner. BIPCO and Pascoag are exempted because the small size of their systems would make the economic impact of the subsidy on their other customers much more significant than National Grid’s with its nearly half million customers. However, BIPCO does have a limited net metering policy in place. At the company’s discretion, customers who request in writing may be allowed to run their meter backward to gain credit for excess generation. However, the excess can only be credited in the month in which it occurred. The overall cap on net metering is 2% of the company’s peak load, and individual systems are capped at 2.5 kW.

A net metering program such as is in place for National Grid could be implemented on Block Island, but would require a review of the company’s rate structure to ensure that all customers not be adversely impacted by crediting net metering customers at the retail rate.



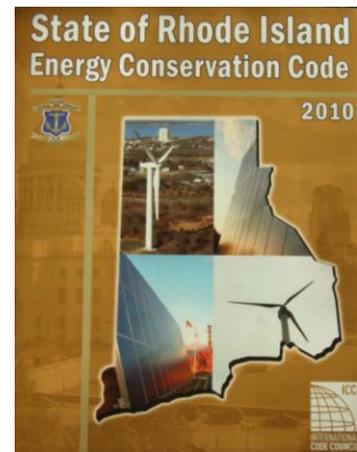
## **BUILDING DESIGN AND SUSTAINABLE DEVELOPMENT**

### **Background**

#### State and Local Building and Energy Conservation Codes

As with all communities in the state, building construction activity is guided by the State of Rhode Island Building Code, which is enforced by the local building official. The State Building Code is actually the adoption (with minor amendments) of a national building code developed by the International Code Council (ICC). While the code consists of several divisions, the two primary codes are one governing the construction of one and two family dwellings (International Residential Code or IRC) and one governing all other building construction (International Building Code or IBC). The State Building Code prohibits local governments from promulgating their own code provisions, even if those modifications may be more stringent.

Effective July 1, 2010, Rhode Island adopted the provisions of the 2009 International Energy Conservation Code (IECC, a model energy code published by the ICC) for incorporation into the State Building Code. Among other things the energy code increased insulation and air barrier requirements (building envelope requirements for thermal performance and air leakage) and the efficiency of new heating and cooling equipment over those levels contained in the earlier (2006) version of the code. As part of the State Energy Program funding through the American Recovery and Reinvestment Act of 2009, there is an ongoing training program by the RI Building Code Commission for local building officials and inspectors. As the IECC regulations are updated and/or made more stringent in terms of building energy efficiency, these changes are incorporated into the State of Rhode Island Building Code; the 2009 IECC mandated an energy efficiency (reduction) of 15% over those levels contained in the 2006 code, and the 2012 IECC will further mandate an efficiency of 30% over those levels in the 2006 code.



The ICC has also developed an International Green Construction Code (IGCC), with the goal of reducing the overall impact of the built environment on the natural environment, and on human health. The IGCC, when adopted by state and local governments, will require enhanced building performance (siting and construction) in such areas as energy use, water use, and natural resource and material conservation. The IGCC consists of a number of electives and is structured so that a jurisdiction can tailor it to address environmental issues of particular concern to that jurisdiction. Once adopted, the mandatory code is intended to eventually replace voluntary green building programs and rating systems such as LEED (see below). The State of Rhode Island is on schedule to incorporate the IGCC by making use of eight out of a total of fourteen electives dealing with various site development and land use issues, waste material re-use and reporting requirements. However, these additional green building standards will only apply to state and municipal buildings, and to residential buildings over three stories in height. Once adopted by the State, however, each municipality can elect to adopt the IGCC and have it

apply to all commercial buildings in its jurisdiction. The community has the option of selecting its own electives out of the fourteen contained in the IGCC.

It is important to note that the Rhode Island State Building Code sets minimum standards for the construction of buildings in order to provide for the health, safety and welfare of the occupants of those buildings. A building “built to code” is one in which the quality is at the minimum level one could legally construct. In terms of energy conservation and efficiency, while the State Building Code does not always require state of the art building design and construction, in general the code requirements are consistent with current industry standards for energy efficiency and green buildings.



### Leadership in Energy and Environmental Design Program

Leadership in Energy and Environmental Design (LEED) is a rating program developed and refined by the US Green Building Council (USGBC). The LEED program assigns points for various positive energy and environmental features incorporated into a building and its site, and based upon total points accumulated, assigns a level of “greenness” to the project – Certified, Silver, Gold or Platinum. There are a number of LEED systems tailored to building types (LEED for Homes, LEED for Schools, LEED for New Construction, etc). These vary somewhat but retain an essential core of categories. Within LEED for Homes, for example, are categories for Site Selection, Site Sustainability, Innovative Design, Materials and Resources, Water Efficiency, Energy and Atmosphere, Indoor Environmental Quality and Awareness and Education.

### LEED and Energy Use

While most of the categories under LEED have a positive impact on energy conservation and usage, the relationship between the goals of some categories and their overall energy impacts can be somewhat removed from each other. For example, the category on Water Efficiency is focused on preserving water as a resource, and awards points for reducing water usage and

providing methods for water reuse; it does not specifically award points for reduced pumping and treatment, which results in an energy savings. In an unusual “reverse” relationship, the Indoor Environmental Quality category awards points for enhanced ventilation in homes, which, of course, can increase energy consumption. In this case the expenditure of energy for health purposes is legitimate and important, but earning the LEED point requires additional energy use.

Under the LEED for Homes category of Energy and Atmosphere, the rating is primarily based on measures to reduce energy usage and its environmental impact. Points are awarded for the reduction of energy demands for heating, cooling, lighting, water heating and appliances. Points are awarded on one of two basic ways. The first is reliance upon an overall HERS (Home Energy Rating System) score. After the HERS score is calculated, the placement of the project on the HERS scale determines the LEED points awarded. As an alternative, a project may be awarded LEED points based upon a detailed analysis of individual building components (insulation, windows, air sealants, etc). One method or the other must be chosen, as a combined approach is not permitted. LEED for New Construction offers several options for evaluating performance based upon either computer modeling or prescriptive measures. LEED for New Construction is a far more complicated process of building analysis than that required for homes.

### LEED for Neighborhood Development

LEED for Neighborhood Development integrates the principles of smart growth, New Urbanism and green building into the first national rating system for neighborhood design. It was developed by a partnership of the US Green Building Council with the Congress for the New Urbanism and the Natural Resources Defense Council. There are a number of credit categories, which include: smart location and linkage, neighborhood pattern and design, green infrastructure and buildings, and innovation and design process.

Block Island, with its compact, walkable village, and commercial, marine and transportation activities centered around its two harbors, along with the low density development pattern of the countryside, has a relatively energy efficient development pattern that developed naturally over time. The Town has encouraged planned development districts and the construction of higher density affordable housing where the infrastructure can support it. The Town’s land development and subdivision regulations also emphasize low impact design.



### **Building Options for the Future**

On Block Island, new building construction is almost always done in excess of code requirements for energy efficiency because of associated climate-driven (wind load) standards that mandate greater structural components. This also results in a long term savings in electrical energy costs to the property owner. In general, the Town should continue to encourage designers

and property owners to construct to the highest possible standards for conservation and environmental reasons, as well as for energy cost savings.

LEED is currently the most widely known and accepted rating system for determining the broad environmental performance and impact of buildings. The LEED program is likely to continue to evolve and provide the standard for some years to come. However, the process of LEED rating can be costly; over and above the physical features incorporated into the building, the program requires registration, documentation, testing and inspection, all of which add cost to a project. Eventually the LEED rating system will be duplicated by the incorporation of green building standards in the RI Building Code, as contained in the International Green Construction Code (IGCC), at least for public buildings and larger residential structures. The LEED for Neighborhood Development categories, however, can be a useful tool in guiding and evaluating new land development projects.

## **Goals**

Most of modern energy use is tied to the built environment. There are four goals related to building design and site development that the Energy Plan endorses:

1. Support and enhance implementation of the International Energy Conservation Code;
2. Encourage voluntary use of the LEED rating system for buildings and site design;
3. Support and encourage use of green building standards; and
4. Encourage and require sustainable land development practices.

Compliance with the International Energy Conservation Code is mandated as part of the State Building Code and is enforced locally by the Building Official. The LEED rating system should be encouraged for the design and construction of new homes, major renovations and new commercial properties. However, LEED is a complex system that adds an initial expense to any project given certification, and goes beyond issues of direct energy use. As a result, LEED is more applicable to a reward or incentive system as opposed to regulating minimal performance. However, the Block Island Planning Board should review the LEED for Neighborhood Development categories and, where possible, include them in its regulations.

It is the intention of this plan to mandate where possible the highest building design and siting standards for energy conservation, and provide incentives for exceeding those standards where practicable.

## **Implementing Actions**

1. Establish incentives for energy efficient construction using the IECC and IGCC standards.

In the construction of new houses and the renovation of, or additions to, existing houses, the priorities for energy conservation should be as listed below from highest to lowest:

- A high performance building envelope with special attention to air sealing
- Insulation values in excess of those required by code, with strict code enforcement
- Selection of high efficiency equipment such as boilers, water heaters and lighting systems
- Non-use of high energy “optional” features such as air conditioning, irrigation, pools and excess exterior lighting
- Effective controls to limit heating during unoccupied periods (including freeze monitoring and outdoor temperature resets)
- Use of water saving fixtures/gray water systems and rainwater harvesting
- Use of building materials in new construction that consist of 30% (or more) of post-consumer waste, and proper on-site solid waste management



As previously stated, many energy efficiency efforts are, or will be, mandated through the State Building Code. Other standards will remain optional, at least for residential construction. The Town should review options and establish incentives to encourage energy and water conservation steps listed above that are not mandated, or that can achieve a higher level of energy efficiency than in the code, as well as others. Incentives could include reduced building permit fees and/or tax incentives. The building permit fee structure could be pro-rated according to the number of items on a checklist the builder is proposing to include (or not include) in the design. Another possibility is to set up a local property tax credit program that allows the owner to recoup the value (or a percentage of the value) of a specific energy saving feature over a given period.

## 2. Adopt IGCC standards for use on Block Island.

Once the State incorporates the IGCC standards for state and municipal buildings and all residential structures over three stories, Block Island has the option to include green building standards in its own regulations to apply to commercial construction. The Town should review the electives contained in the IGCC relating to site development and land use, and material and water resource conservation and efficiency (see Appendix E), and determine what can be applied to building on the island.

## 3. Establish incentives and/or requirements for green buildings and neighborhood design through the town development (zoning and subdivision) regulations.

Development projects that incorporate green building design and efficient neighborhood design, or “smart growth” strategies, can reduce both energy costs and impacts on the environment. The

Town should offer incentives to use green building standards in projects otherwise not regulated, specifically one and two family dwellings. It is recommended the Town use criteria from the IGCC, LEED and other ratings systems to evaluate development projects and subdivisions in terms of their sustainability. As part of the development review process, factors such as building siting to account for environmental factors (solar access, prevailing winds) and voluntary restrictions on house size and design can be part of the approval of a site or subdivision plan by the Planning Board.

Site and neighborhood design features are simpler to mandate than building design (governed by the State Building Code), although their evaluation can be subjective. Such features or criteria the Planning Board can either require or encourage include pedestrian access and connectivity to the village and the ferry, reduced parking requirements and/or parking set asides for low emission hybrid and electric vehicles, minimum densities, mixed use, public open space and gardens, re-use and restoration of historic buildings, and energy efficient buildings. Incentives provided can be density bonuses or reduced application fees. It is recommended that a checklist (modified from the LEED for Neighborhood Development checklist) be developed in evaluating a given development proposal.



## ENERGY PLAN IMPLEMENTING ACTIONS

### KEY:

#### Responsible Parties

Town Council (TC)  
Town Manager (TM)  
Town Department:

Building/Zoning  
Land Use/Planning  
Water and Sewer

Board or Commission: Planning Board (PB)  
Water District/Sewer District Commission  
Taxi Commission

Task Force or Committee: Electric Utility Task Group (EUTG)  
Island Energy Plan Committee (IEPC)

Private Organization: Block Island Residents' Association (BIRA)

Regional/State: Washington County Regional Planning Commission (WCRPC)  
RI State Legislature/Representatives for New Shoreham  
Public Utilities Commission (PUC)

Private Sector Block Island Power Company (BIPCO)  
Transfer Station Operator (TSO)  
Other Private Interests

#### Funding

Town  
Washington County  
State  
Federal  
Grant  
Private

#### Timeframes

On-going  
Short-term; within two years (ST)  
Mid-term; two to ten years (MT)  
Long-term; over ten years (LT)

<b>Implementing Actions</b>	<b>Parties Responsible</b>	<b>Funding Options</b>	<b>Timeframe</b>
<b>Electric Power Generation and Distribution</b>			
1. Continue to actively pursue public non-profit ownership of the power plant	TC/EUTG/ BIPCO	Ratepayers	MT
2. Investigate options for a cost effective cable to the mainland, thereby eliminating the need for the power plant (except as back-up)	TC/EUTG/ BIPCO	Grant/ Private/ Ratepayers	MT
3. Make use of alternative energy technology	TC/EUTG	Grant/ Private/	Ongoing
4. Supplement the energy supply with community sized municipal turbine(s) and additional solar PV	TC/EUTG/ Other Private	Grant/ Private	MT
5. Upgrade the capacity of the electric distribution system	BIPCO/ PUC	Ratepayers/ Grant	MT
6. Adjust the rate structure and explore other options to encourage conservation	TC/EUTG/ PUC/BIPCO	Ratepayers	ST
<b>Fuel Use</b>			
1. Explore the adoption of a town ordinance that prohibits covenants restricting the use of on-site renewables by homeowners associations	TC/Manager	Town	ST
2. Reconsider the establishment of a jitney serving island visitors during the summer	Taxi Commission/ Other Private	Grant/Private	ST
<b>Solid Waste</b>			
1. Adjust the commercial fees for disposal at the transfer station to encourage recycling	TC/Manager/ TSO	Town	ST
2. Identify ways to facilitate recycling	Manager/ Sewer Dept/ Commission	Town	ST

<b>Solid Waste, cont.</b>			
3. Explore the use of other waste disposal technologies.	TC/Manager/ TSO	Town/ Grant	MT
4. Consider alternate locations for the transfer station.	TC/Manager	Town/Private	LT
<b>Water Use</b>			
1. Offset the energy costs of the water and sewer plants by establishing on-site renewables	Manager/ Water and Sewer Depts/ Commissions	Grant/Town	ST
2. Establish a water conservation education program	Water Dept	Town	ST
3. Evaluate the feasibility of an on-island composting demonstration project using yard waste with sludge from the treatment plant	TC/Manager/ Sewer Dept/ TSO	Town/State/ Grant	MT
4. Pursue a regional composting facility with other Washington County communities	TC/Manager/ WCRPC	Town/Wash County	MT
<b>Renewable Energy Use</b>			
1. Complete a feasibility study for the establishment of one or more municipal turbines to connect with the on-island electrical distribution system	TC/Manager/ EUTG	Grant/Town	ST
2. Establish renewable energy systems at the water and sewer plants and at all feasible municipal locations	Manager/ Commissions/ Town Dept.	Grant/Town	ST/MT
3. Support biodiesel production by allowing biodiesel producers to provide a waste collection bin for edible oils at the transfer station	TC/Manager TSO	Private	ST
4. Encourage use of residential bulk purchasing for PV and solar hot water systems	Private/TC	Private	ST

<p><b>Energy Efficiency and Conservation Efforts</b></p> <p>1. Complete the town building audits and make necessary improvements</p> <p>2. Establish an on-going residential educational program</p>	<p>TC/WCRPC</p> <p>TC/BIRA</p>	<p>Grant/Town</p> <p>State/Private</p>	<p>ST</p> <p>Ongoing</p>
<p><b>Local and State Energy Regulations</b></p> <p>1. Amend the zoning ordinance to reflect current technology for individual and utility WECS</p> <p>2. Amend zoning and other town ordinances with respect to renewables, as needed</p> <p>3. Establish net metering requirements that apply to Block Island</p>	<p>TC/PB/ Planning Dept</p> <p>TC/PB/ Planning Dept</p> <p>TC/EUTG/ BIPCO/PUC/ Legislature</p>	<p>Town</p> <p>Town</p> <p>NA</p>	<p>ST</p> <p>ST</p> <p>ST</p>
<p><b>Building Design and Sustainable Development</b></p> <p>1. Establish incentives for energy efficient construction using the IECC and IGCC standards</p> <p>2. Adopt IGCC standards for use on Block Island</p> <p>3. Establish incentives for green buildings through the town development (zoning and subdivision) regulations</p>	<p>TC/Manager/ Bldg/Zoning Dept</p> <p>TC/Bldg Dept</p> <p>TC/PB/ Bldg/Zoning and Planning Depts</p>	<p>Town</p> <p>Town</p> <p>Town</p>	<p>ST</p> <p>ST</p> <p>ST</p>

# Energy Component to the New Shoreham Comprehensive Plan

## APPENDICES

### Appendix A

Block Island Electric Rates January 2008 – December 2009

### Appendix B

EUTG Analysis of Public Ownership of BI Power Company (January 2008 PowerPoint Presentation)

### Appendix C

Summary of Gasification Technology

### Appendix D

Town of New Shoreham Electrical Energy Use and Cost FY 2009 – FY 2011

### Appendix E

International Green Construction Code Electives

## APPENDIX A

### BLOCK ISLAND ELECTRIC RATES JANUARY 2008 – DECEMBER 2009

#### Block Island Residential Electric Rates, 2008 – 2009

<u>Month</u>	<u>Electricity Charge Cents per kWh*</u>	<u>Month</u>	<u>Electricity Charge Cents per kWh*</u>
Jan 08	34.23	Jan 09	24.92
Feb 08	33.57	Feb 09	21.15
Mar 08	34.55	Mar 09	23.90
Apr 08	40.59	Apr 09	23.32
May 08	40.20	May 09	24.10
Jun 08	61.07	Jun 09	41.37
Jul 08	62.18	Jul 09	41.55
Aug 08	56.77	Aug 09	43.68
Sep 08	54.18	Sep 09	42.40
Oct 08	37.57	Oct 09	27.42
Nov 08	32.99	Nov 09	30.24
Dec 08	29.99	Dec 09	29.99

\* Total charge for electricity includes all customer, energy and fuel charges

Source: Rhode Island Public Utilities Commission

**APPENDIX B**  
**EUTG ANALYSIS OF PUBLIC OWNERSHIP OF BI POWER COMPANY**  
*POWER POINT PRESENTATION*

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## Recommendations on the Future of Electricity for Block Island

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***Report by:***

***Town of New Shoreham Electric Utility  
Generation Task Group***

***January 9, 2008***

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### The Town of New Shoreham's leadership is needed to align the interests of electricity producers and consumers on Block Island

*We propose the Town support the following course of action:*

- Support the process of acquiring BIPCo's generation and distribution assets by appointing representatives to discuss with BIPCo the possibility of their being acquired consistent with current rate projections
- Support the establishment of an organization that would own the assets and operate the acquired company. The new organization would be mandated to:
  - Improve current operations,
  - Upgrade the distribution system
  - Encourage cost-effective, diversified, sustainable generation using wind, solar and other means
- Embark on an energy conservation program supported by reinstating the \$0.01/kWh summer surcharge

---

## Why should the Town facilitate the acquisition of BIPCo generation and distribution assets?

Block Island's electricity rates are already among the highest in the country and BIPCo has not implemented lower-cost generation technologies. Only fundamental change in ownership will align the utility with the public interest. Without a change, costs will continue to increase.

Block Island will remain solely dependent on its own electricity resources for the foreseeable future:

- Block Island-only cable is impractical
- Off-shore wind and wave projects with cable connection are years away, at best
- Current reliance on diesel generation exposes ratepayers to oil price shocks

Public ownership of the generation and distribution assets is important:

- Siting for new generation
- Costs and benefits for future investments
- Choosing technologies that lower economic and environmental risks

---

2

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## Why should the Town facilitate the acquisition of BIPCO generation and distribution assets? *(Continued)*

Under the current ownership structure, electricity rates will continue to increase because the company's incentives are not aligned with community needs, causing additional economic and environmental harm to Block Island:

- No incentive to promote conservation
- No incentive to increase system efficiency
- No incentive for substantial movement away from oil and oil price fluctuations
- Growing likelihood that customers will choose to generate their own electricity, potentially increasing pollution and raising costs for the remaining rate payers

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3

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## **Ratepayer and community control will focus on reducing electricity costs, sustainable generation and conservation**

As a “for profit” regulated monopoly, BIPCo has little incentive to pursue lower cost generation or conservation

Community control links interests of the electric company more closely with community needs:

- Changing ownership of BIPCo to a ratepayer owned company will change the incentives
- Community/Ratepayer control will refocus to longer-term investments – such as modernizing power generation, reducing costs, and diversifying away from using only diesel generation

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4

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## **The purchase price should fairly compensate owners and must not increase rates**

A new organization would acquire BIPCo’s physical generation and distribution assets, assume operating responsibilities, and defer land issues :

- Negotiated price based on economic value of the power company operations and current payments to shareholders
- Valuing the land is deferred
  - Possible liabilities (environmental, etc.) remain with the land as they are now
  - Real value is exceedingly speculative without a firm development proposal
  - Resolution of land value and its allocation is likely to be contentious
- Stock purchase of BIPCo (all assets and all liabilities) is not practical without resolving land valuation and potential environmental liabilities

---

5

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**Purchasing BIPCo alone will not change rates materially;  
changing the way it is operated will**

- ❑ Lowering rates requires changing current costs which are:
  - ❑ Generation (fuel and associated charges) ~\$.20/kWh
  - ❑ Operations & financing ~\$.20/kWh
  
- ❑ Sustainable generation investments will lower the generation component of electricity:
  - ❑ PV \$.18/kWh (\$.02/kWh savings).
  - ❑ Wind \$.08/kWh (\$.12/kWh savings).
  - ❑ Co-gen \$.16/kWh (\$.04/kWh savings).
  - ❑ PV and Wind are insensitive to oil supply disruption and price increases
  
- ❑ Distribution system upgrades will improve efficiency and reduce losses, reducing generating costs by 2.0 cents/kWh

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6

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**Purchasing BIPCo alone will not change rates materially;  
changing the way it is operated will (*Continued*)**

- ❑ Operating costs will be reduced

<b>Actions</b>	<b>Cents/kWh</b>
Eliminate Allowed Profit	1.2
Eliminate Income Taxes	0.3
Eliminate Rate Case Expenses	0.6
Eliminate Management Fee, Add Some Support	1.3
Control Legal & Accounting Costs	0.5
Total	<u>3.9</u>

- ❑ Increased conservation efforts can result in lower ratepayer bills
  - ❑ Implement the HDR long range plan recommendations
  - ❑ Change the design of rates to reflect actual costs and to promote conservation

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7

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## Purchasing BIPCo's generation and distribution assets could be financed under an independent structure without using Town borrowing capacity

- New entity would be not for profit, ratepayer controlled with Town representation on the board. It would not be Town-owned or Town-financed
- BIPCo purchase price funding would be obtained by the new entity
  - Financing funded through existing cash flow (estimated at \$.015-\$.02/kWh)
- Existing debt would remain in place
  - Principally through Rural Utilities Service (RUS) at attractive rates
- Investments in the new company can be funded by:
  - Additional loans and grants from RUS
  - Outside investors in alternative generation
  - Sale of Renewable Energy Certificates (RECs)
  - Clean Renewable Energy Bonds (CREBs)

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8

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## The Town should initiate the acquisition process

- Appoint representatives to begin preliminary discussions with BIPCo
- Authorize expenditures for legal advice regarding what type of organization should be formed to own the acquired assets, and for assistance during the initial acquisition phases:
  - Technical assistance and some funding may be available from other organizations
  - Legal fees can be reimbursed to the Town when a transaction occurs
- Create the new organization
  - Form will depend upon legal issues and whether it is designed for acquired power company assets or alternative generation assets

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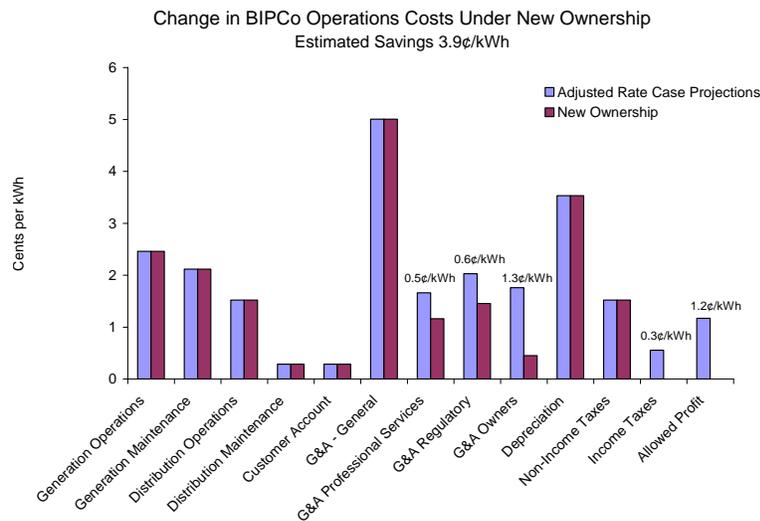
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**As an alternative if the acquisition of BIPCo cannot be negotiated, the Town could:**

- Establish an organization for an independent electricity generation company in partnership with the Town, cognizant of the Town's leading interest in a sustainable supply of electricity for the Town itself, and for Block Island as a whole
- The independent generation company should be given the mandate to reduce the cost of generating electricity for taxpayers
- The independent generation company would sell power to BIPCo for delivery through the current distribution system and/or displace power supplied by BIPCo to Town facilities

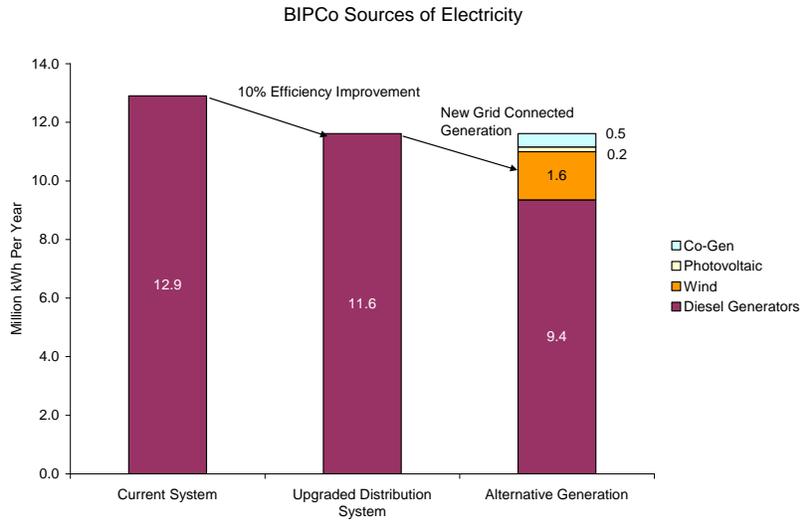
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**Community ownership can lower operating costs**



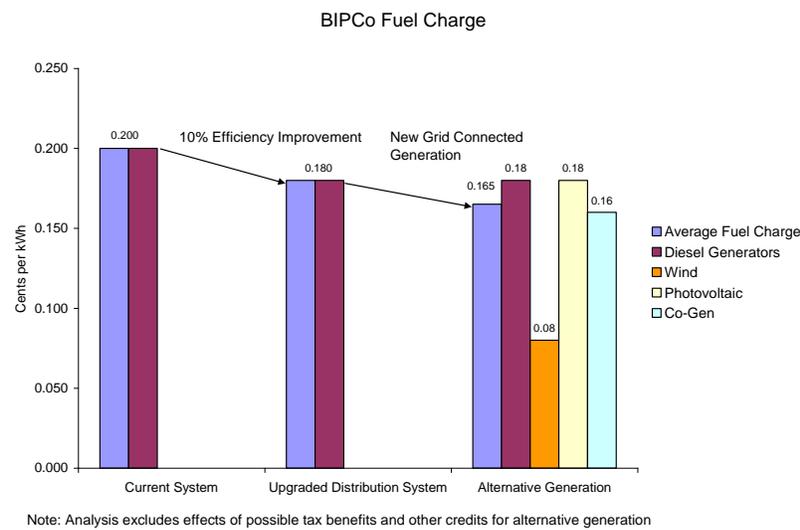
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## Investing in alternative generation can move away from diesels



12

## New generation technologies also lower costs



13

☐ Town-owned or Independent sustainable generation investments will lower will lower the generation, AND operations/financing components of electricity.

☐ PV \$.18/kWh (\$.22/kWh savings).

☐ Wind \$.08/kWh (\$.32/kWh savings).

☐ Co-gen \$.16/kWh (\$.24/kWh savings).

	80 kW Cogeneration	80 kW Solar Electric	660 kW WECS
Installed Cost w/o Grants/Tax Credits, etc.	\$148,450	\$708,200	\$2,329,000
After Tax Annual Savings averaged for 20 years	\$62,860	\$41,449	\$299,817
Generation Cost averaged for 20 years, \$/kWh	0.16	0.18	0.08
BIPCo Rates, \$/kWh			
Generation	0.27	0.27	0.27
Operations/Financing	0.26	0.26	0.26
Total	0.53	0.53	0.53

14

☐ Town-owned or Independent sustainable generation investments will lower will lower the generation, AND operations/financing components of electricity.

☐ PV \$.18/kWh (\$.22/kWh savings).

☐ Wind \$.08/kWh (\$.32/kWh savings).

☐ Co-gen \$.16/kWh (\$.24/kWh savings).

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Installed Cost w/o Grants/Tax Credits, etc.	\$148,450	\$708,200	\$2,329,000
After Tax Annual Savings averaged for 20 years	\$62,860	\$41,449	\$299,817
Generation Cost averaged for 20 years, \$/kWh	0.16	0.18	0.08
BIPCo Rates, \$/kWh			
Generation	0.27	0.27	0.27
Operations/Financing	0.26	0.26	0.26
Total	0.53	0.53	0.53

15

## **APPENDIX C SUMMARY OF GASIFICATION TECHNOLOGY**

There is, or may be in the future, a possibility to use gasification to dispose of solid waste on Block Island. Gasification reduces solid waste to a char-type material and produces syngas as a byproduct. Syngas can be used to power an internal combustion generator to produce electric power, or can be burned directly for space heating.

Gasification should not be confused with incineration, which is simply the burning of material to reduce its bulk, resulting in the emission of a great deal of carbon and other pollutants into the atmosphere. In gasification, almost any organic carbon based material is placed within a sealed vessel and heated in the absence of oxygen to a very high temperature, at which point a chemical breakdown occurs and volatile gases are driven out of the material. This gas, called syngas, is primarily hydrogen and carbon monoxide with other volatile gases. It contains approximately half the energy density of natural gas. The syngas is captured and some is used to heat the vessel while the excess is available as a fuel. The solid byproduct of gasification is a primarily carbon char material as well as some ash, typically 5% of the waste stream by weight. Composition of this byproduct is dependent upon the composition of the initial feed stock. Small and homemade gasifiers are often batch type, while larger and commercial units can be continuously fed and operated.

Currently one company, IST Energy based in Waltham, MA, is working to develop a gasifier of a scale that may be appropriate for Block Island. This unit will be able to accept feedstock at a rate of approximately three tons per day – Block Island's total waste stream is approximately 2,000 to 2,400 tons per year. The unit, a prototype being developed for military use, is contained within a standard trailer truck body and consists of a hopper into which material is loaded, a dryer to reduce moisture content, a pelletizer to compress the material into pellets that can be fed into the gasification chamber, and finally a gas driven generator which runs on syngas as a fuel. The system can be run continuously except for a four hour weekly maintenance shutdown. Electrical output varies with different feedstock mixes but ranges from 35 to 40kW. Feedstocks being tested by IST currently include 35% food waste, 35% plastic, 25% paper goods and 5% wood, with plastic being the most energy dense of the three materials and food being the least.

Initial cost of the IST unit is estimated at \$1,100,000 with a life expectancy of about fifteen years. There exist several tax incentives available to private entities, but not to municipalities. In order to capture these incentives a lease arrangement with power purchase would hold advantages over purchase. The IST unit is in the development stages and the first unit is expected to be deployed to the military for trial in early 2011. Although gasification is a proven technology, the IST package type unit is new and it may be advisable to wait for a more proven unit from IST or another developer. Another possibility is to work with the other communities in Washington County to set up a regional gasification project.

**APPENDIX D**  
**TOWN OF NEW SHOREHAM ELECTRICAL ENERGY USE AND COSTS**  
**FY 2009 – FY 2011**

A breakdown of energy consumption and cost during three recent fiscal years, by various town accounts, is shown in the following table:

Town of New Shoreham Electrical Energy Use and Cost  
FY 09 – FY 11

<u>Account</u>	FY 2009		FY 2010		FY 2011	
	<u>kWh</u>	<u>Cost</u>	<u>kWh</u>	<u>Cost</u>	<u>kWh</u>	<u>Cost</u>
BI School	319,360	\$119,097	280,320	\$ 99,928	289,600	\$126,397
Sewer Plant*	175,820	53,559	147,703	47,802	156,202	63,659
Sewer Pumps (4)	11,314	5,718	13,351	5,910	13,072	7,057
Water Company	107,320	48,728	91,520	37,721	87,480	41,848
Library	86,670	36,310	76,716	29,363	84,132	36,520
Town Hall	65,038	27,738	55,998	21,614	43,416	19,889
Old Harbor Dock	34,450	16,889	28,960	12,707	22,040	11,083
Fire Barn	28,320	11,129	25,449	9,688	25,812	11,510
Police Station	13,408	5,683	13,477	5,162	13,821	6,255
Town Street Lights	---	13,564	---	13,564	---	13,564
All Other**	<u>44,800</u>	<u>22,082</u>	<u>45,391</u>	<u>20,149</u>	<u>36,581</u>	<u>19,299</u>
Total Town	886,500	\$360,497	778,885	\$303,608	772,156	\$357,081

\* This does not include the fuel and operational cost to run the generators at the sewer plant, which power the plant during the summer season (see page 13)

\*\* State Beach, Coast Guard Station, Rescue Barn, State Garage, Harbormaster

Source: New Shoreham Treasurer

**APPENDIX E**  
**INTERNATIONAL GREEN CONSTRUCTION CODE ELECTIVES**  
*TAKEN FROM TABLE 302.1 OF THE IGCC PUBLIC VERSION 2.0*

REQUIREMENTS DETERMINED BY JURISDICTION (Town of New Shoreham)\*

CH 4. SITE DEVELOPMENT AND LAND USE

Yes / No:

1. Conservation areas
2. Agricultural land
3. Greenfields
4. Stormwater management
5. High occupancy vehicle parking
6. Low emission, hybrid and electric vehicle parking
7. Light pollution control

CH 5. MATERIAL RESOURCE CONSERVATION AND EFFICIENCY

If yes, what percentage:

8. Minimum percentage of waste material diverted from landfills      50% / 65% / 75%

CH 6. ENERGY CONSERVATION AND EARTH ATMOSPHERIC QUALITY

Yes / No:

9. Total annual CO<sub>2</sub>e emissions limits and reporting
10. Post certificate of occupancy zEPI\*\*, energy demand, and CO<sub>2</sub>e emissions reporting

CH 7. WATER RESOURCE CONSERVATION AND EFFICICENCY

Yes / No:

11. Enhanced plumbing fixture and fitting flow rate tier
12. Municipal reclaimed water

CH 9. COMMISSIONING, OPERATION AND MAINTENANCE

Yes / No:

13. Periodic reporting

CH 10. EXISTING BUILDINGS

Yes / No:

14. Evaluation of existing buildings

\* The Town would select among any of the above 14 electives which are not part of the basic mandatory requirements of the International Green Construction Code

\*\* zEPI = Zero Energy Performance Index, the ratio of the energy performance of the rated building to the average energy consumption of a similar building at the turn of the millennium that is operated in a similar climate and under similar conditions.

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# APPENDIX D

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Block Island Harbors Sea Level Rise Adaptation Study,  
2013

**BLOCK ISLAND HARBORS  
SEA LEVEL RISE ADAPTATION STUDY**

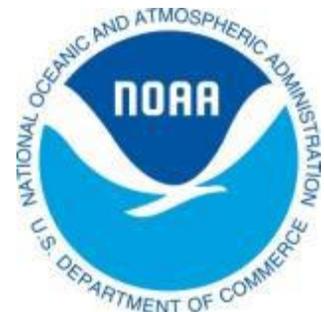
**TOWN OF NEW SHOREHAM  
AUGUST 1, 2013**



New England Municipal Coastal Resilience Initiative Grant Program



**Gulf of Maine  
Council on the  
Marine Environment**



# **Block Island Harbors Sea Level Rise Adaptation Study**

New England Municipal Coastal Resilience Initiative Grant Program

## **Final Project Report**

**August 1, 2013**

Prepared by:

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William McCombe, Interstate Navigation and EMA Director  
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Margie Comings, Old Harbor Task Force, Planning Board  
Kevin Hoyt, Committee for the Great Salt Pond  
Robert Gilpin, North Light Commission  
Chris Littlefield, The Nature Conservancy  
Sven Risom, Committee for the Great Salt Pond, Planning Board  
Arlene Tunney, Harbors Committee, Old Harbor Task Force

Photo Credits:

Jane Weidman – Cover photo and others in document  
Alex Brady and Clara Rubin, as identified in the document

# **Block Island Harbors Sea Level Rise Adaptation Study**

New England Municipal Coastal Resilience Initiative Grant Program

## **Final Project Report**

August 1, 2013

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# **Block Island Harbors Sea Level Rise Adaptation Study**

New England Municipal Coastal Resilience Initiative Grant Program

**Final Project Report**  
August 1, 2013

## **INTRODUCTION**

### **US Gulf of Maine Association Grant /Project Goals**

In December 2011, the Town of New Shoreham (Block Island) was a recipient of a grant from the Association of US Delegates to the Gulf of Maine Council on the Marine Environment (US Gulf of Maine Association) in coordination with the Gulf of Maine Council (GOMC) and Northeast Regional Ocean Council (NROC), with funding provided by the NOAA Climate Program Office. The grant was in response to a competitive Request for Proposals (RFP) from New England coastal communities for projects that would assist local efforts in adapting land use, infrastructure, policies and programs to reduce the vulnerability of both the built and natural environment from changing environmental conditions. Block Island's successful proposal sought funding to plan for and mitigate the impacts of flooding as a result of projected sea level rise and storm surges on its two harbors, as well as the island roadway system that connects the harbors to the commercial center of the island and to the outlying residential areas.

The project goals include the development of mapping that indicates the impact of various sea level rise and storm surge scenarios on the harbors and village areas, structural engineering concepts to address the impact of this rising sea level on the island's marine infrastructure, and contingency plans to respond to the potential inundation of the connecting roadways and bridges.

### **Project Area Description**

Block Island, located twelve miles off the coast of Rhode Island, has unique challenges related to its geographic isolation, including vulnerability to natural hazards (hurricanes, coastal storms and nor'easters) and reliance on privately owned ferry and airline companies for transportation to and from the mainland. In addition, the village and two harbors, where development is densest and most of the commercial and hospitality activity takes place, is vulnerable to flooding due to its low elevation. The island's economy is heavily dependent upon tourism which in turn relies almost exclusively on the operations of its ferries.

Residents and visitors in the outlying areas depend on access to the village and harbors for a number of life's necessities and conveniences, including groceries and gas; mail, banking and religious services; and supplies and products shipped by ferry. The fire station, which also serves as the dispatch and response center for medical emergencies, and the police station next

door are located in a central site near one of the harbors, and public safety responders, in turn, require access to the remainder of the island. Access is also needed from the village and harbors to the Block Island Medical Center and the school, which also serves as an emergency shelter, both of which are located a half mile outside of the village. These critical aspects of island life depend on a functioning roadway system in and around the town center, some sections of which are vulnerable to storm erosion damage and flooding and eventually, sea level rise. See Figure A-1 Project Study Area.

### **Block Island Harbors:**

For water-based transportation to and from the island, Block Island is served by two harbors, “Old Harbor” and “New Harbor”. Old Harbor, in the village or downtown area, is the principal ferry terminal where the majority of passenger trips arrive and depart. In addition, all vehicles and goods, commercial and private, are moved on and off the island at Old Harbor.



This harbor, protected by a breakwater originally constructed by the Army Corp of Engineers in 1873, is a harbor of safe refuge. Marine facilities include the ferry terminal operated by the company, Interstate Navigation, and a town-managed dockage area known as the Inner Basin. The terminal facility includes two docking sites for the larger year-round passenger and vehicle ferries and a newly reconstructed dock which supports smaller seasonal (high-speed) passenger-only ferries, including one from New London, Ct operated by another ferry company, the Block Island Express. Landside it includes a large staging area for goods, supplies and equipment being moved off of or onto the ferry, a freight shed, a ticket office, a large queuing area for vehicles, and a parking area.



Old Harbor

The Inner Basin is formed by two town docks (West Dock and South Dock) and one along the inside of the breakwater owned by the Army Corp (East Dock). The Inner Basin is used for a limited number of commercial fishing and charter boats, as well as for public wharfage, with a high volume of transient boater use during the summer season. Facing the Inner Basin is the harbormaster's building, rebuilt in 2011. The Old Harbor landing area also includes a visitors' center operated seasonally by the BI Chamber of Commerce, and public restrooms. Old Harbor is the hub of the island, particularly during a typical summer day when the island welcomes 10,000 daily visitors, most of whom who travel from the Interstate's mainland facility, at the Port of Galilee in Narragansett.



Old Harbor marine and ferry support facilities; NS GIS Department

New Harbor, in the Great Salt Pond, is the location of the great majority of recreational boating activity, including most of the island's marinas. These include Payne's Dock, the Boat Basin, and Champlin's Marina. Payne's provides dockage for some small commercial cruise vessels, and Champlin's also supports a seasonal passenger-only ferry service from Montauk, NY. Inner Harbor, also referred to as the Hog Pen, located off the road approaching New Harbor, supports a couple of smaller marinas and a public boat launch. It is also the site of the Block Island Maritime Institute which provides maritime and marine science education programs for children. On the west side of the entrance to the Great Salt Pond, the "channel", includes a Coast Guard Station and dock. New Harbor is also extremely active during the summer season; it supports a number of restaurants and one major hotel, but it is not as critical in terms of supporting year-round island life as is Old Harbor.



New Harbor marine facilities; NS GIS Department

## **Background Efforts**

### **2011 Hazard Mitigation Plan Update:**

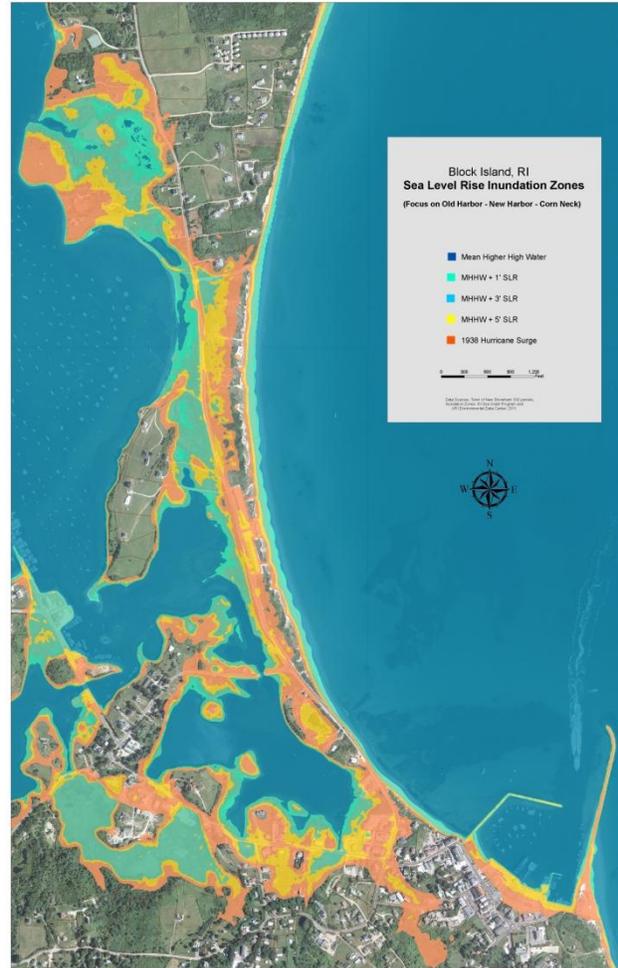
In 2011, the Town of New Shoreham updated its Hazard Mitigation Plan, originally prepared in 2006, with funding by the RI Emergency Management Agency. The plan describes the history of natural disaster events impacting the island – hurricanes (including as far back as the 1938 Hurricane), flooding, nor'easters, snowstorms and windstorms. It includes specific mitigation efforts related to vulnerable infrastructure, including certain roadways subject to hurricane and other storm damage, and a number of sewer pump stations located within the village and harbor areas subject to flooding and loss of power. The plan did make note of two additional potential natural hazards – climate change and sea level rise – but did not specifically address these hazards in terms of actual impacts or response needed by the community. The current study begins to address this critical issue by quantifying the degree of sea level rise expected in the future, and the impacts on the island's transportation infrastructure. The results of this study will be incorporated into the next update of the Hazard Mitigation Plan, scheduled for 2016.

### **Climate Change Session:**

A public session, well attended by a cross-section of island residents, on climate change and the potential impact on the island in terms of flooding, storm surges and overall sea level rise was held on October 8, 2011, and sponsored by three island groups: Scenic Block Island, the

Committee for the Great Salt Pond and the Block Island office of The Nature Conservancy, with assistance from the Town Planning and GIS Departments.

Mapping prepared by the GIS Department using a digital elevation model of coastal Rhode Island made available through the Rhode Island Sea Grant Program, showed the impact on the island of various sea level rise scenarios and storm surges, including the inundation that occurred during the Hurricane of 1938. This preliminary mapping showed that while much of the island, including most of the residentially developed areas, will not be physically impacted by projected sea level rise, infrastructure in the village and harbor areas is vulnerable. Road access to the northern part of the island, Corn Neck, could eventually be severed, and lower lying roads and the land area around New Harbor inundated due to flooding associated with the Great Salt Pond and connecting water bodies. Among the issues brought up during the discussion period was that of the impact of sea level rise on the operation of the ferry terminal in Old Harbor.



Inundation mapping; NS GIS Department

## CLIMATE CHANGE AND SEA LEVEL RISE

### **Impacts of Climate Change on Rhode Island**

Changes in the climate, or alterations in the earth's overall weather trends, including air temperatures, length of seasons, annual precipitation and sea levels, is a scientifically documented fact. Governments at all levels will ultimately be forced to address the myriad negative impacts, particularly on the built environment.

In Rhode Island, as in the other New England states, there has been a documented increase in the average annual air temperature, as well as the temperature of Narragansett Bay. The amount of precipitation has increased gradually over the past 100 years, which has resulted in more intense storms with greater flooding, although there is less snow in the winter. The intensity of hurricanes has increased, and sea level rise is evident; as measured at tide gages in Newport, sea level has increased 8.7 inches since 1930.

#### **Sea Level Rise:**

Sea level rise, a result of thermal expansion and melting of the glaciers in Greenland and Antarctica, is occurring at an accelerating rate. In the northeast over the past half century, sea levels have been increasing three to four times faster than the global average rate, resulting in a 6 inch rise between 1970 and 2012. By 2050, sea level rise in Rhode Island is projected to increase by one foot or more above 1990 levels, and by 2100, by three to five feet.

Sea level rise, even if not immediately threatening in the form of inundation to a particular coastal site, has a negative impact in other ways. The elevation of a spring high tide today could be the equivalent of a daily high tide in the future, and surges during storms, especially in conjunction with a high tide, will be greater in intensity. The shoreline will also be subject to greater storm induced erosion.

#### **Storm Surges:**

Storm surges, waves or elevated water levels generated offshore by high winds associated with storms systems, will continue to increase in frequency due to the increased activity of extra-tropical (nor'easters) and tropical storms. When storms surges are associated with high tides they can be particularly threatening. With the impact of increasing sea levels, in some areas of the northeast storm surges associated with future hurricanes could be several feet higher than under present conditions. The higher storm surges also support larger waves on top of the elevated surge height. In the Atlantic Basin as a whole, there has been a shift toward category 4 and 5 storms, with fewer category 1 and 2 storms, although how this trend will impact hurricanes making landfall is uncertain, as the data is limited due to the rarity of these events.

The combination of these factors – higher sea levels and high tides, and the greater frequency of more severe storm surges – will result in greater coastal flooding and erosion, and more widespread property and infrastructure damage.

(Sources: RI Sea grant Program, URI Coastal Resources Center; University of Rhode Island).

## **Impacts of Storms on Block Island**

### **Hurricane Irene, 2011:**

In late August 2011, this destructive and costly hurricane, which made landfall in the Outer Banks of North Carolina, and in New Jersey and Brooklyn days later, and eventually became a tropical cyclone in New Hampshire and Vermont, caused widespread wind damage and power outage throughout much of Rhode Island, particularly Aquidneck Island (Newport). The storm passed Block Island which was spared power outage and only lost ferry service for a day. High winds did cause some tree damage and there was excitement from large waves rolling in from the south which swept over the east section of the breakwater in Old Harbor. However, there was no permanent damage to any roads or structures, nor to any vessels due to early preparation by the Harbors Department. The west side of the island was subjected to some erosion.

### **Super Storm Sandy, 2012:**

Hurricane Sandy, also referred to as a “super storm”, was the most destructive storm of the Atlantic 2012 season. It affected the entire eastern seaboard in the last days of October, most dramatically the New Jersey shore, which took a direct hit, and New York City, which experienced significant storm surges. In Rhode Island most of the damage was along the south coast where fifteen to thirty foot seas pounded the coast over two days, destroying dunes and causing significant flooding and property damage. The duration lasted through multiple tide cycles; storm surges of four to five feet on top of high tide resulted in a storm tide high of over eight feet above mean low tide, as recorded in Newport.

Rising sea level increased the impact of the storm. In New York and New Jersey, an increase in sea level over the past century resulted in a thirteen foot storm surge. Although the storm did not hit Rhode Island directly, it produced damage comparable to what a category 1 or 2 hurricane in an earlier era would have produced. Scientists predict that these impacts will be the new norm for storms in the future.

On Block Island, the storm pummeled the eastern side of the island, including Old Harbor and Crescent Beach. Corn Neck Road, which parallels the beach and connects the harbor and village area to the north part of the island, was destroyed for a length of 1,800 feet, isolating one business, restricting access to a number of residences and requiring travelers along the remainder of Corn Neck Road to use an alternate route (Ocean and Beach Avenues).



Corn Neck Road, along Crescent Beach; Alex Brady

A shorter section of Spring Street, leading out of town south of Old Harbor, and also paralleling close to the shore, was damaged. Both roads were rebuilt as part of a \$3.1 million emergency repairs contract (funding by US DOT), with construction completed in March. The town beach pavilion also suffered damage, including structural, and had to be shuttered.

In Old Harbor, the bait dock on the east side of the Inner Basin was destroyed. The Army Corp East Dock sustained significant damage. The recently constructed town docks and the ferry dock withstood the storm. However, Ballard's, a large restaurant and bar located on what is essentially a coastal feature between the harbor and the beach, sustained significant damage; waves washed through the building, destroying the easterly wall and filling the first floor with sand.

In New Harbor, there was no structural damage, only localized flooding due to the storm surge that entered the Great Salt Pond. Under the direction of the harbormaster, the harbor had been almost entirely emptied of recreational boats in preparation for the storm. The marinas all took precautions to secure their facilities. The few boats that remained in New Harbor weathered the storm without damage, as they had been thoroughly secured in locations most favorable for the wind direction.



Field review of impacts from Super Storm Sandy; Fairbanks Engineering

Outside of the harbors area, there was considerable beach erosion and damage to the dune system, particularly along Crescent Beach. The Block Island Conservation Commission responded with a plan to install snow fencing to capture the sand, allowing the dunes to rebuild in a cost-effective and sustainable manner. The Conservation Commission, together with the BI Residents Association, purchased (with donations) 90 rolls of fencing and installed it along several access paths to the beach during three community work days in late March and early June 2013, events which attracted a total of over a hundred and fifty volunteers. Beach grass or beach roses are to be planted later as the dunes re-establish. Signs were installed to remind people to stay off the dunes.



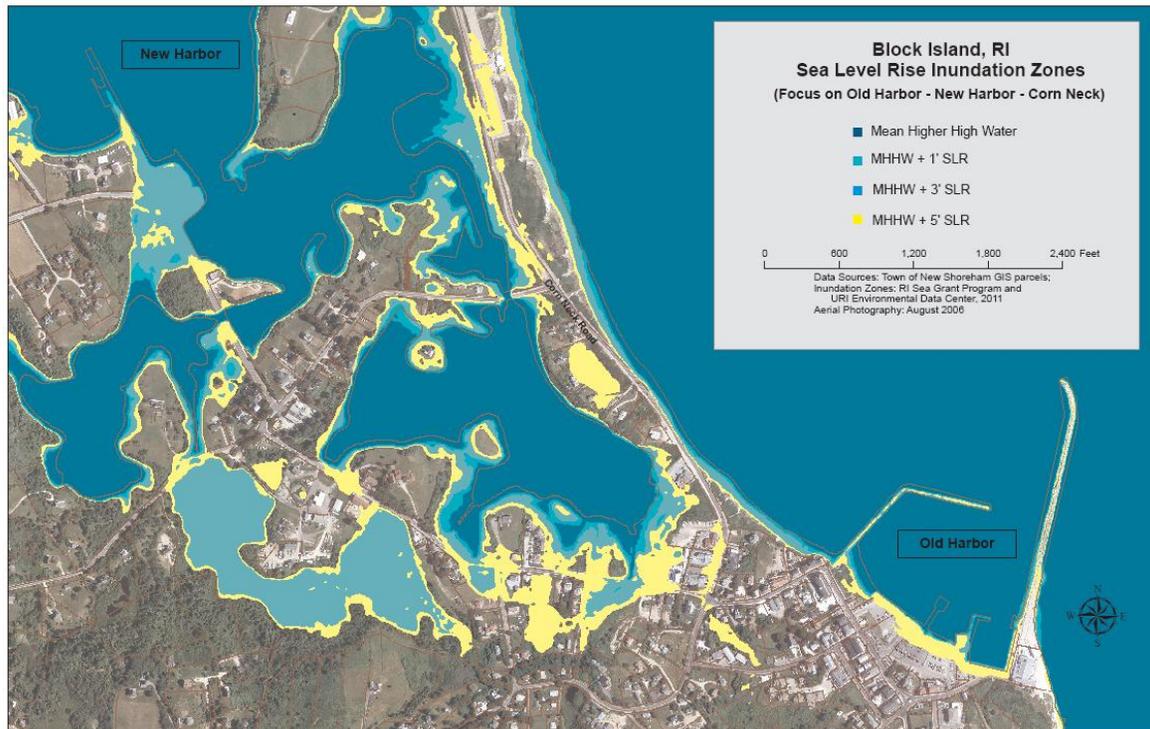
Dune protection sign along Corn Neck Road

# SEA LEVEL RISE MAPPING FOR BLOCK ISLAND

## Preliminary Mapping

Preliminary project mapping was prepared by the New Shoreham GIS Department applying the digital elevation model of coastal Rhode Island made available through the Rhode Island Sea Grant Program. These maps show the impact of one, three and five foot sea level rise, as well as the areas inundated by the Hurricane of 1938, on the entire island, with more detail focused on the area between Old Harbor and New Harbor. The model uses elevations of the coastal areas of the state based on the consolidation of a number of digital elevation data sources, including bathymetric data, and tidal conditions as measured by the Newport tide gage. This elevation model has been used around the state to show the dramatic impacts of various sea level rise scenarios on the landscape and built environment.

A goal of this project is to verify and improve the level of detail provided by these preliminary maps, and to show the various degrees of inundation that will occur under various sea level rise and storm surge scenarios. Of particular interest are impacts on the Old Harbor breakwater, the docks, the ferry landing and staging area, the land areas and adjoining docks at New Harbor, and many of the roadways in between and leading to other parts of the island.



Preliminary inundation mapping prepared by the New Shoreham GIS Department

## **Project Mapping and Methodology**

New inundation maps were developed using a different elevation source, a statewide airborne LiDAR survey done in 2011<sup>1</sup>. The LiDAR consists of point data or “clouds” which contain every point visible at the time of survey, such as trees, buildings, cars and even people. On average, one point was collected on the ground surface for every meter of land surveyed (although coverage varied, with some areas where the point spacing was 20 meters or more apart). The result is a “bare earth” vertical accuracy of 15 centimeters (5.9 inches) RMSEz<sup>2</sup> or better, allowing for the generation of two foot contour lines. A bare earth version of the LiDAR survey was developed from the point data to create a digital elevation model (DEM) with one meter grid spacing. Surface water bodies were cut out of the grid and given a consistent elevation, allowing for better vertical accuracy. The details for the LiDAR collection and processing, also known as metadata, can be found at the RI Geographic Information Systems (RIGIS) website<sup>3</sup>.

The mapping was generated by an Autocad 2013 Civil 3D Mapping and Planning software program based on 2011 orthophotos from RIGIS, using the 2011 LiDAR elevations. Some errors were noted in processing the bare earth file, most likely due to misinterpretation of objects just above the surface of the ground (curbs, low brush, barriers) as ground points. With consideration of the limitations of the LiDAR as described, the first effort was to create a digital terrain model using the bare earth file. Once the terrain model was completed, the data was converted into units of feet, using the elevations contained in the bare earth data. A topographic map was created with one foot contours. The higher resolution of the study mapping is considered artificial in that, similar to the original survey, it is only accurate in generating two foot contours. Nevertheless, the mapping is useful at the study level by showing general trends in topography in the project study area, and identifying the low lying areas prone to inundation during a storm event or sea level rise.

The datum for the project maps is NOAA bench mark data sheet for Station ID 8459338 in Old Harbor, Block Island. The mapping is referenced to Mean Low Water (MLW). NOAA's bench mark data sheet indicates that the Tidal Epoch is from 1983 to 2001, and the length of the series (one year) measurements were conducted from April 1988 to March 1989.<sup>4</sup>

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<sup>1</sup> LiDAR, Airborne Light Detection and Ranging, is a remote sensing technology that uses an array of laser beams to collect high resolution elevation data across the landscape.

<sup>2</sup> RMSEz, Root Mean Square Error, is the statistical value equal to the square root of the average of the squares of the differences between known points and modeled points in the LiDAR surface.

<sup>3</sup> See Data Download/Elevation and Derived Products at the following link:  
[http://www.edc.uri.edu/rigis/xslt/metadata.htm?xmlfile=/spfdata/elevation/2011RILiDAR\\_UTM.xml&xslfile=xsl/FGDC%20Plus.xsl](http://www.edc.uri.edu/rigis/xslt/metadata.htm?xmlfile=/spfdata/elevation/2011RILiDAR_UTM.xml&xslfile=xsl/FGDC%20Plus.xsl)

<sup>4</sup> Both the LiDAR and the benchmarks tidal data are tied to the North American Vertical Datum of 1988 (NAVD88).

Deriving the tidal elevations from station 8459338, the inundation surfaces are determined as follows, with MLW set at 0:

MLW = 0 ft (datum)

MSL = 1.35 ft

NAVD88 = 1.7 ft

MHW = 2.85 ft

MHHW = 3.10 ft

MHHW plus 1 foot SLR = 4.10 ft

MHHW plus 3 foot SLR = 6.10 ft

MHHW plus 1 foot SLR plus 3 ft storm surge = 7.10 ft

MHHW plus 5 foot SLR = 8.10 ft

FEMA 100 year flood elevation = 9.7 ft<sup>5</sup>

Given the lack of certainty of the accuracy of the elevation data, the resulting inundation maps are not suitable for design purposes. Some areas shown to be inundated may or may not be to the extent shown on the plans. Therefore, it is recommended that an actual field survey be conducted prior to undertaking any advance studies or design efforts to address the impacts of flooding. However, as stated above, the results provide a reasonably accurate picture of the vulnerable marine facilities and the landside support areas and roadways, and the impacts under both sea level rise and storm events. In evaluating the impacts of Sandy, it appears that the storm caused flood levels in the study area that align with the 3 foot sea level rise elevation limits, discussed in more detail below.

### **Impacts of Sea Level Rise as Mapped**

The cumulative impacts of four inundation scenarios are indicated in Figure A-2. These are: the elevation of mean higher high water (MHHW) plus one foot sea level rise (SLR); three foot SLR; one foot plus three foot storm surge; and five foot SLR. These same scenarios are presented in additional maps breaking the project area into three sections for greater detail: Old Harbor, Village and Corn Neck Road (Figure A-3); Ocean and Beach Avenues (Figure A-4); and New Harbor (Figure A-5). For ease in understanding the cumulative impacts at each level of sea rise, the study area is shown as impacted by just one foot SLR (Figure A-6), three foot SLR (Figure A-7), and five foot SLR (Figure A-8).

The colors corresponding with a particular SLR scenario indicate the additional areas flooded beyond that expected under MHHW, or MHHW in combination with the lower SLR scenario(s). For example, the green shading shows only that area under one foot SLR impacted beyond the mean higher high water, while the yellow shading shows only that area under three foot SLR impacted beyond that under the one foot SLR scenario, and so on.

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<sup>5</sup> The FEMA 100 year flood design elevation of 8 feet is based on NAVD88

## Old Harbor and Marine Facilities:

Preliminary mapping showed that under the most extreme scenario, 5 foot SLR, the breakwater that forms the harbor of refuge would be partially inundated, along with up to half of the ferry landing area. The updated project mapping shows significant inundation impacts on the breakwater, particularly the west and north sections. Dramatic results will occur as sea level rise reaches three feet, when these sections of the breakwater will be entirely submerged. The eastern section of the breakwater will be narrowed under 3 foot SLR and significantly compromised under 5 foot SLR. A portion of the beach area between Ballard's and the south end of the eastern breakwater will be submerged under 5 foot SLR. These scenarios show that, as sea level rises, the breakwater as currently constructed would be expected to provide only marginal protection to the inner harbor area, and certainly would be breached by waves on top of storm surge generated by tropical and extra-tropical storms.



North and west sections of Old Harbor Breakwater

As sea level rise reaches three feet, some of the marine facilities and shore-side areas of Old Harbor will become flooded. The town dock and adjoining landside area, including the harbormaster's building, will all be inundated, as will the area alongside the ferry docks and the ferry office and ticket building. A three foot storm surge on top of 1 foot SLR will flood a significant portion of the area, impacting all of the buildings except the freight office. As sea level rise reaches five feet, Old Harbor will become a much different place than it is today, as most of the landing area will be inundated, including all the buildings and about half the parking and queuing area. The natural shoreline (small beach area) west of the ferry site will eventually loose area to inundation because of its lower elevation. Given the possibility of stronger storm surges, the impacts from rising sea level will be quite dramatic long before the five foot scenario occurs.

## Roadways between Old Harbor and New Harbor:

Access out of Old Harbor includes a number of roads – Spring Street, High Street, Old Town Road – that lead to the central and southern parts of the island. These all rise in elevation and are not subject to any foreseeable inundation scenarios. However, as climate changes, some roads will be subject to more severe and frequent storm induced erosion damage. The section of Spring Street (not included in this study) damaged by Super Storm Sandy adjoins a bluff that was undercut by wave action. The narrow part of Corn Neck Road was damaged by waves accompanying the storm surges of Sandy. While the actual loss of the road to the rising sea appears to be many years away, it will be subject to storm erosion in the meantime.

For the village area road system, the impact of sea level rise will be increased flooding and the eventual submergence of some sections. The two bridges – Beach Avenue, near its intersection with Corn Neck Road, and Ocean Avenue, approaching New Harbor – are vulnerable as well. The roads and bridges connecting Old Harbor to New Harbor include many areas that are vulnerable to flooding from the large inland water bodies tidally connected to the Great Salt Pond – Harbor Pond and Trim’s Pond. As sea level rises, the geography of the area connecting the harbors will be dramatically impacted, requiring that alternatives to the present roadway configuration be developed.

The impacts will be noticeable as sea level rise reaches three feet. Ocean Avenue, between the intersection with Corn Neck Road (Bridge Gate Square) and Beach Avenue, will be inundated in a couple of areas, including its intersection with Connecticut Avenue, which connects with Old Town Road to the south and is an access to the center of the island. Beach Avenue, west of its intersection with Ocean Avenue and another important access to the center of the island, will be inundated due to flooding associated with a large wetland system behind the Block Island power plant. Most dramatically, the section of Ocean Avenue between the Hog Pen and Payne’s Dock, including its intersection with West Side Road, the major road connecting New Harbor with the outlying residential areas, will be completely flooded on an average high tide.



Ocean Avenue leading into New Harbor

As sea level rise reaches five feet, the flooded areas described above will be enlarged significantly; most of Ocean Avenue between Bridge Gate Square and Beach Avenue will be inundated, as will both approaches to the Beach Avenue Bridge, cutting off connection to Corn Neck Road. Corn Neck Road will be flooded along its west side from a rising Trim's Pond. At its present elevation, the Ocean Avenue Bridge will be lost, as will a small complex of buildings on the west side of Ocean Avenue just south of the bridge.

With no changes to infrastructure, the result of 3 foot SLR, and eventually 5 foot SLR, will be the isolation, in terms of public roadway access, of a number of areas in and around the village and New Harbor. This includes residential and commercial areas adjoining most of Ocean Avenue west of Bridge Gate Square. When the bridges are damaged or become impassable, the peninsula that separates the east portion of Trim's Pond from Harbor Pond, traversed east-west by Beach Avenue, will be cut off from both Corn Neck and New Harbor, and from the remainder of the island by flooding along Beach Avenue to the west and that described along Ocean Avenue. This area includes a number of residences and some inns, but most significantly, the public safety buildings – the police station, and next door, the fire station which also houses the island's ambulance services.



Police and fire station on Beach Avenue

### **New Harbor:**

In New Harbor, all the marine facilities will eventually sustain impacts to some degree. The shoreline areas alongside the three dock structures will eventually succumb to higher sea levels, requiring adjustments. The buildings associated with Champlin's Marina, and with the Boat Basin, including a commercial building and a popular restaurant, appear to be protected by elevation. However, the dock at Champlin's, and more significantly, Payne's Dock, show inundation as sea level rise reaches three feet. A large wetland system lying between Champlin's and the Boat Basin can absorb a lot of the eventual flooding impact. However, as sea level rises, the impacts of storm surges will become more significant and as it reaches five feet, the Boat Basin complex will be cut off from West Side Road.

More significant is the permanent loss of a large low-lying area between Payne's Dock and the Hog Pen on both sides of Ocean Avenue, which as stated above, will be completely inundated at 3 foot SLR. On the west side it includes a cottage associated with the Narragansett Inn property, a mostly hilly parcel which lies between the Boat Basin and Payne's Dock and fronts a small beach (unaltered shoreline). On the east side of Ocean Avenue the doomed area supports a large restaurant, a small residence and the BI Maritime Institute building which also houses a restaurant. At 5 foot SLR more of this area will be inundated, as will the Ocean Avenue Bridge (at its present elevation).

This inundation scenario indicates an opening between two sections of Trim’s Pond near its inlet with the Great Salt Pond by the submergence of a significant area of low-lying land. This will result in the creation of a small island in the middle of an enlarged Trim’s Pond; if the Ocean Avenue Bridge is abandoned, it will have no roadway connection to the rest of the island. This small area is partially developed, used for marina and boat rental activities and the storage of individual oil tanks, but with no permanent structures. The complete inundation of the lower section of Ocean Avenue will mean that someday the only way to connect New Harbor with the rest of the island, including Beach Avenue, will be by West Side Road.



Ocean Avenue area vulnerable to sea level rise

### **Sewer Lines and Pump Stations:**

The village area subjected to the impacts of climate change and sea level rise is also associated with the Town’s water and sewer districts. The Town’s sewage treatment processing facility is located just south of the Old Harbor village area on Spring Street and does not appear vulnerable to either storm surges or sea level rise. It also has two diesel generators, used to run the sewage treatment plant during the summer season as an alternative to the high cost of electricity on the island.

Sewer lines run along all of the streets in the village area and a short distance along Corn Neck Road. Ocean Avenue is sewered for its entire length; this line which continues along West Side Road, provides sewer services to all of the marine businesses – Payne’s Dock, the Boat Basin and Champlin’s Marina. There are a number of pump stations, five shown within the study area.

The locations of the sewer lines and pump stations are indicated on Figures A-2 through A-8 appended to this report. While the two along Ocean Avenue would be impacted by a 3 foot SLR, all but one of the pump stations (that closest to the treatment facility) would be impacted by a 5 foot SLR.

## ADAPTATION STRATEGY

The adaptation strategy to address the impacts of sea level rise on the harbor and village areas of Block Island includes design concepts to retrofit the marine facilities, proposals regarding infrastructure – roads and the sewage pumping stations – and emergency planning to respond to major storm events that impact the operation of the ferry, the functioning of area roadways and the safety of the public, including visitors.

### **Engineering Solutions**

#### **Field Review:**

Field inspection of the critical transportation infrastructure was undertaken. At Old Harbor this included the ferry terminal facility operated by Interstate Navigation, the town docks and the harbormaster’s building, and the existing stone breakwater and revetment system. At New Harbor this included the docks and boat ramp. In addition, the impacts of sea level rise along the roadway and bridge sections of Ocean and Beach Avenues were reviewed.

#### **Design Concepts:**

With an understanding of the areas of the island and the specific facilities subject to the destructive impacts of sea level rise and storm surges, the next step is to identify engineering solutions, both temporary and long-term. These include design concepts to protect the marine facilities and infrastructure from both the inevitable sea level rise and the more current threat of storm surges. Typical methods to address the impacts of sea level rise on the infrastructure are summarized as follows:

#### **Breakwaters at Old Harbor**

Increase the elevation of these structures based on the sea level rise both experienced and predicted, and on increased design wave heights provided by revised FEMA flood studies.

#### **Piers at Old and New Harbors**

Raise the elevations of the piers as necessary to stay above the rising sea level. This is to be undertaken during normal maintenance re-construction work.

#### **Roadways**

- Abandon the road
- Re-align the road to a higher elevation
- Provide fill to raise the road
- Reconstruct the road as a causeway
- Provide shoreline protection for the road as part of maintenance, such as a stone revetment or seawall structure.

### Pump Stations

- Provide back-up power
- Flood-proof by use of submersible pumps and watertight casings for electrical equipment
- Construct in-ground flood barriers
- Add stabilizing structures to counter uplift forces
- Raise the elevation

Cost for these modifications will vary greatly depending on the height of sea level rise and the structure or mitigation employed. Shoreline protection systems (revetments and seawalls) can range from \$500 to greater than \$10,000 per linear foot of shoreline protected. Road work costs will be highly dependent on the amount and cost of soil borrow fill material required to elevate the road and also the cost for asphalt pavement which fluctuates widely based on the price of crude oil.

### **Marine Facilities and Recommendations:**

There are several marine related facilities on Block Island that will be impacted by sea level rise. At Old Harbor these include the breakwater system; the steel sheet-pile bulkhead structures that line much of the shoreline; the timber ferry dock; the Town's timber dock system at the Inner Basin; and the harbormaster's building. At New Harbor these include the timber dock system and the Town's boat ramp.

### Stone Breakwater System

- Most of the existing stone breakwater system is in fair condition. The exception is the north end of the east breakwater which is in poor condition and has partially failed. The breakwater is shown to be inundated as sea level rises, requiring that its elevation be raised to provide adequate protection for the harbor.
- It is recommended that armor stone be added to an appropriate elevation, including use of larger stones where required. The stone size should be determined by the required design wave height as provided by updated FEMA flood studies.
- The cost to raise these structures about five feet is estimated to be \$13,000,000. However, additional survey and bathymetry is required to verify quantities. The armor stone size, which will be a function of the design wave height, can significantly impact cost.

### Sheet-Pile Bulkheads

- The existing steel sheet pile bulkheads along the shoreline within Old Harbor are in varying condition. The Town's bulkhead at the Inner Basin is relatively new and in good condition.
- The bulkheads along the shoreline within Old Harbor typically have a design life of about 20 to 30 years. The height of these structures should be re-evaluated according to the actual sea

level rise projections at the time these structures need maintenance. It may be beneficial to raise these bulkheads to provide better protection. The cost for steel sheet pile bulk head systems is anticipated to be \$3,000 to \$5,000 per lineal foot.

### Timber Docks in Old Harbor

- The Town's timber dock system and Interstate Navigation's timber docks are all in good condition having been repaired or reconstructed within the last few years. They are expected to have a design life of about 20 to 30 years.
- Similar to the bulk heads, the elevation of the docks may be raised to accommodate sea level rise during the next maintenance cycle. New fixed timber dock construction is estimated to cost between \$150 and \$300 per square foot.



Timber docks in Old Harbor

### Harbormaster's Building

- The harbormaster's building was rebuilt in the last few years and is in good condition. It was designed to allow flooding during storm events through the use of flood vents in the exterior walls of the building.
- Similar to the bulkhead systems and docks, an evaluation should be made to the harbormaster's building during its next maintenance phase. It is anticipated that if the docks and nearby roadways are elevated in the future to accommodate sea level rise, the building would also be raised in elevation.

### Boat Ramp, New Harbor

- The Town's boat ramp at New Harbor is in poor condition and is in need of repair or replacement.

- Given the site and topographic restrictions, there is no viable way to accommodate sea level rise at the site of the boat ramp. It will need to be relocated in the future.



Boat ramp at New Harbor

#### Timber Docks in New Harbor

- The timber docks in New Pond are in fair to good condition and appear to be maintained as needed by their owners.
- Similar to the timber docks at Old Harbor, the docks at New Harbor, particularly Payne's Dock, should be evaluated and possibly raised to accommodate sea level rise during the next maintenance cycle.



The dock at the Boat Basin, New Harbor

## **Vulnerable Roadways and Recommendations:**

As described previously in this report, many of the roadways between the two harbors are vulnerable to the impacts of sea level rise. These include sections of Ocean Avenue between Bridge Gate Square and the intersection with Beach Avenue, subject to flooding associated with Harbor Pond; an area of Beach Avenue west of its intersection with Ocean Avenue, subject to flooding from the east portion of Trim's Pond; and most dramatically Ocean Avenue at its low elevations between the Hog Pen and Payne's Dock, which will eventually become part of an enlarged Trim's Pond. The Ocean Avenue Bridge and the west and east approaches to the Beach Avenue Bridge are shown as inundated at 5 foot SLR, as is the section of Corn Neck Road which lies between Trim's Pond and Crescent Beach.

### Ocean Avenue, South

- This is a state roadway in good condition and is a crucial connecting road between the harbors and the center part of the island.
- Near term impacts – flooding from storm surges – should be addressed by the development of a coastal model evaluating surges as impacted by sea level rise and tides. Infrastructure improvements or adjustments would be based on 100 year design waves and inundation levels.
- Long term impacts – due to sea level rise – will require raising the elevations of the impacted areas of the road.

### Beach Avenue

- This is also a state roadway in good condition and serves to connect the northern part of the island (Corn Neck) to interior areas, and also serves as an alternate road connection to New Harbor (via Center Road and West Side Road).
- Near term impacts – flooding from storm surges – should also be addressed by a coastal model and study, with similar solutions as those for Ocean Avenue.
- Long term impacts – due to sea level rise – will require raising the elevations of the impacted areas of the road, or construction of a bridge.

### Ocean Avenue, North

- This section of the state roadway leading into New Harbor is in good condition and includes a bridge over the narrow channel that connects the east and west sections of Trim's Pond. It provides the only access to the Hog Pen and is one of only two roadways providing access to Payne's Dock.

- Near term impacts – flooding from storm surges – should also be addressed by a coastal model and study, with similar solutions as those for the south section of Ocean Avenue and Beach Avenue.
- Long term impacts – due to sea level rise – will most likely involve abandonment and the use of Beach Avenue, Center Road and West Side Road as access to New Harbor. Access to Payne’s Dock may require new road construction.

### Corn Neck Road

- This is also a state roadway in generally good condition; the section damaged by Super Storm Sandy has been completely repaired. It serves as the only road access to the northern part of the island (referred to as “The Neck”).
- Near term impacts – potential damage by storm surges from another tropical or semi-tropical storm – must be monitored by the State Department of Transportation and the Town.
- Long term impacts – due to sea level rise – will require raising the elevations of the impacted areas of the road, or possible dredging of the salt ponds to increase their storm surge capacity.

### Sewer Lines and Pump Stations

- There are four pump stations in locations shown to be eventually impacted by inundation due to sea level rise. Two are located on Ocean Avenue, one near Bridge Gate Square and the second near the bridge over Trim’s Pond. The others are at the Boat Basin and Champlin’s Marina. As stated in the Hazard Mitigation Plan, the pump stations (five total) currently do not have a back-up power source. In the event of extended power outage, a sewage overflow could cause potential contamination of the groundwater and coastal ponds.
- The stability of the pump stations during flooding events, especially the wet well, will require evaluation and possible mitigation. In the meantime, portable generators are needed for rapid response during power failures.
- Long term impacts of inundation due to sea level rise will require retrofits to flood-proof the pumps and electrical components, such as casings and flood barriers, as well as a means of stabilizing them against the uplift forces of floodwaters. Eventually the elevations of the pump stations will have to be raised.

### Emergency Contingency Planning

As stated in the Town’s 2011 Hazard Mitigation Plan: *“Damage resulting from natural hazards to the harbors, docks, airports, ferries or planes would cripple the island in every way.”*

In general, the emergency planning as part of the current project supplements the work done under the Hazard Mitigation Plan which deals more directly with the short term impacts of storm damage and power loss.

### **Ferry Operations:**

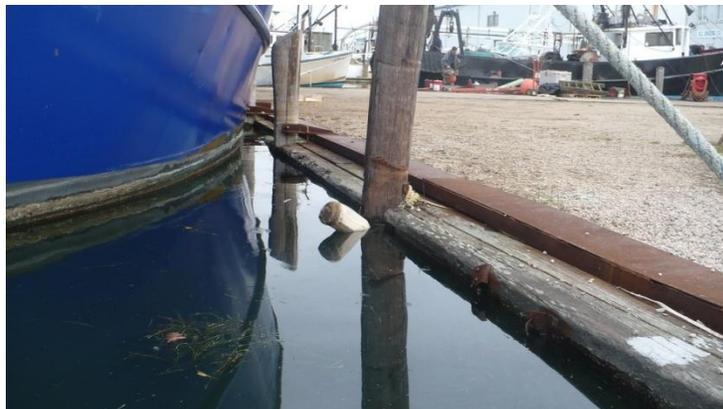
Well in advance of a hurricane or other major tropical storm event, the ferry company, Interstate Navigation, ceases its daily runs between Point Judith, Narragansett and Old Harbor and moves the ferry vessels to their more secure facility in New London, Ct. Vacationers and other overnight visitors are strongly encouraged to leave the island in advance of the storm and the ferry company makes every effort to move all persons off the island who desire to leave.

### Block Island

In the event that use of Old Harbor is compromised, although unlikely, Payne's Dock in New Harbor could be used as an alternate ferry landing site, particularly important for bringing food, fuel and supplies onto the island. However, the dock is not structurally rated for trailer trucks so the transfer of supplies from the trucks onto the island would have to occur by forklift.

### Galilee

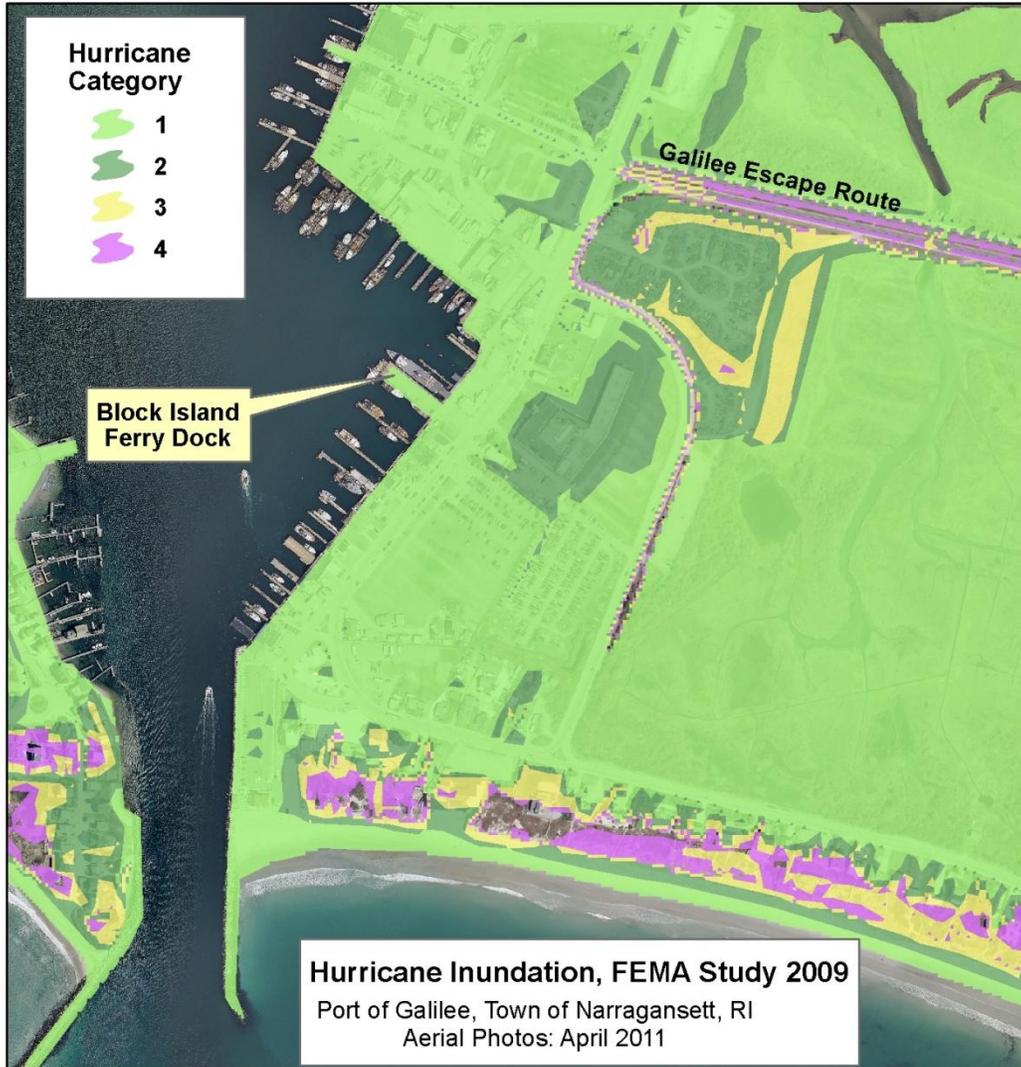
Alternative harbors on the mainland should also be identified as a location for temporary ferry service in the event that storm damage or inundation renders the terminal in the Port of Galilee (referred to on the ferry schedule as Point Judith) inoperable. Over the longer term, it appears that the ferry terminal facility in Narragansett, located on state property (RI Department of Environmental Management), is particularly vulnerable to sea level rise, as well as flooding due to coastal storms.



Ferry docking site in Galilee at high tide, 10/27/2011; Clara Rubin

Although sea level rise maps were not prepared for Galilee, a hurricane surge inundation map, available from the US Army Corps of Engineers through the Rhode Island Hurricane Evacuation Study, was modified to show the areas near the ferry landing that are vulnerable to hurricane surges. The maps were developed by overlaying the hurricane surge water surface elevations on

top of ground elevations from FEMA LiDAR data to show which areas would be inundated by hurricane storm surges. The model assumes a worst case scenario in terms of landfall location, wind speeds and direction, and in combination with mean high water.



Modified Hurricane Inundation Map for Galilee; NS GIS Department

As the mapping clearly shows, the Port and all of its associated marine related commercial and recreational areas, as well as numerous residences, are extremely vulnerable to even a category 1 hurricane. It is also expected that the dune system along the south shore would be damaged and that the breach would occur at a lower level intensity storm despite the map indicating that those areas would only be breached as a result of a category 3 or category 4 hurricane.

## **Public Safety/Emergency Response:**

All overnight visitors are strongly encouraged to leave the island in advance of a major storm. Every year, as part of its free informational summer publication, the Block Island Times includes a prominent column called “Hurricane Planning for Residents and Visitors”. Due to the lack of emergency shelter space for a large summer population, as well as the inability of the island to deal with large scale medical emergencies, the overriding emphasis of the column is on leaving the island when warned to do so. Because the ferries must move to safe harbor well in advance of a storm, the need to react to such directives is immediate.

Regarding the safety of recreational boaters, most of the work of the harbormaster occurs prior to a hurricane or major storm. In order to protect lives, and minimize or nearly eliminate the damage to recreational boats and potential collateral damage to other boats and infrastructure, visiting sailors and motor boaters are strongly directed to leave for their home ports. Use of town moorings is prohibited. To the extent possible, all local boats, including those belonging to the Town, are pulled out of the water. Those vessels remaining, particularly the commercial fleet in Old Harbor, are monitored by their owners and the harbormaster. Lines are adjusted during the storm in response to changing conditions.



Rough surf during Super Storm Sandy; Alex Brady

## **Public Outreach Program**

The results of this study will be incorporated into the Hazard Mitigation Plan when it is updated in 2016. This project will also be referenced and summarized in the New Shoreham Comprehensive Plan, scheduled for update in 2014, under a new state required component “Natural Hazards”.

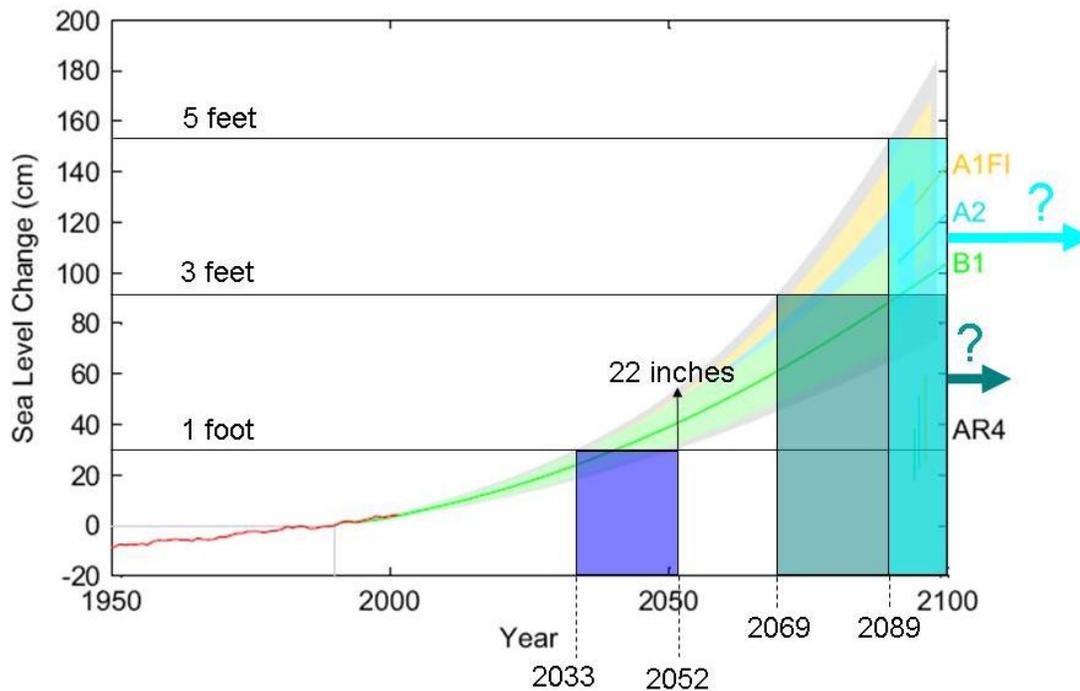
As part of the public education effort related to this project, a pamphlet was developed to provide islanders with information on what to expect from the impacts of a changing climate, particularly under emergency situations. To develop the pamphlet, the Old Harbor Task Force and the Committee for the Great Salt Pond partnered with the Town to undertake its preparation and distribution. As an attachment to this report, the pamphlet describes the sea level rise scenarios and storm events, and directs the community in responding to long term changes as well as to situations when transportation to and from the mainland is interrupted.

## CONCLUSIONS AND NEXT STEPS

### Time Frame for Sea Level Rise

The Vermeer and Rahmstorf<sup>6</sup> global sea level rise curve, reprinted below, shows the range of possibilities for sea level rise under various greenhouse gas scenarios identified by the Intergovernmental Panel on Climate Change. The sea level trend clearly shows acceleration over time. It also shows that the uncertainty of the projections is greater the further into the future the projections are made. In the worst case, sea levels could reach five feet above 1990 heights during the last decade of this century (around 2089). In the shorter term, 20 to 40 years from now, sea levels will be anywhere from 12 to 22 inches above the 1990 levels.

There have been various studies indicating that the relative sea level rise in the mid Atlantic and the Northeast is occurring at a higher rate than the global average. In Rhode Island, the average as measured in Newport over the last eighty years is approximately one inch every ten years (2.68 mm per year). However, in the last several years the rate has dramatically increased, as studied and graphed by State Geologist Jon Boothroyd at the University of Rhode Island.



Vermeer and Rahmstorf, 2009

<sup>6</sup> “Global sea level linked to global temperature”, Martin Vermeer and Stefan Rahmstorf, Proceedings of the US National Academy of the Sciences, December 2009.

## **Impacts of Sea Level Rise and Increased Storm Intensities**

While coastal properties, public infrastructure and natural resources will all be at eventual risk from rising sea level, there are a number of more immediate effects. These include the continued erosion of shorelines, possibly at faster rates due to higher storm surges; the potential saltwater contamination of freshwater, including drinking water supplies, especially wells located in low lying areas near the coast; and higher storm surge flooding with storm surges occurring further inland. It is important to note that, although temporary, the impacts of a two foot high storm surge, typical in a moderate extra-tropical storm, on top of a one foot rise in sea level is roughly equivalent to the impact of a three foot sea level rise. If the storm surge occurs at a high tide the impacts are even more pronounced.

Because hurricanes require warm sea surfaces to develop and maintain, the increase in sea surface temperatures can be linked to higher intensity hurricanes of a longer duration. Changing climate may also be responsible for the movement of major storm tracks northward. This will result in more property damage, flooding associated with increase rainfall, and greater risk to public health and safety.

## **State Planning Efforts**

### **RI Climate Change Commission:**

The Rhode Island Climate Change Commission, established under a 2010 state law, is a standing commission made up of legislators and representatives from state agencies and business, community and environmental organizations. The Commission's mandate is to study the projected impacts of climate change on Rhode Island and identify methods to protect both the natural and built environment. The eventual goal is to integrate climate change planning and adaptation into state and municipal programs and policies, including infrastructure development and maintenance.

The commission released a progress report in November 2012: *Adapting to Climate Change in the Ocean State: A Starting Point*. Of three working groups established by the commission is one to deal with infrastructure and the built environment; the others deal with natural resources and habitats, and with public health issues. The progress report describes the vulnerability of infrastructure located within river and coastal floodplains. These include wastewater treatment systems, energy infrastructure, and any number of transportation features including ports, roads, railroads and bridges. However the working group has not yet undertaken detailed risk assessments of specific infrastructure and the impacted populations that could eventually lead to identifiable initiatives or adaptation techniques.

### **RI Comprehensive Planning Act:**

Another important state level legislative act was a set of amendments in 2011 to the RI Comprehensive Planning and Land Use Regulation Act, which included new content requirements for community comprehensive plans. One of these is a "Natural Hazards"

component identifying areas vulnerable to the effects of sea level rise, flooding and erosion, with policies and implementation techniques addressing these impacts. This addition, among others, including one to consider energy production and use, must be incorporated into local comprehensive plans by 2016.

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

The RI Coastal Resources Management Council is currently undertaking a Shoreline Change Special Area Management Plan, referred to as the Beach SAMP. It is a collaborative effort that includes the University of Rhode Island (URI) Coastal Resources Center/RI Sea Grant Program and the URI College of Environment and Life Sciences, as well as other state agencies and all of the coastal and bay communities. The goal is to prepare a state management plan that results in policies and regulations addressing both the short and long term changes to the shoreline from erosion, flooding and sea level rise, principally as it will affect the built environment. The project will involve extensive study and coastal modeling, and its initial phase will focus on the “South County” communities, including New Shoreham. The Block Island Harbors Sea Level Adaptation Study will be coordinated with the Beach SAMP.

### **Infrastructure Improvements and Building Code:**

Both the mandate of the Climate Change Commission and a goal of the on-going Beach SAMP is to identify the vulnerable infrastructure along Rhode Island’s coastlines, and the degree to which damage or loss of the infrastructure impacts the area population. This knowledge is to be used in long term planning for adaptation, including maintenance or replacement of vulnerable infrastructure.

This will aid Block Island as all of the roads in the village area, including those susceptible to flooding and sea level rise, are state owned and maintained, falling under the auspices of the Rhode Island Department of Transportation, who is actively considering the impacts of climate change on vulnerable state roads under an recently established “infrastructure adaptation strategy”.

Likewise, the State of Rhode Island Building Code regulates all construction at the local level (enforced by the building official). The state building code now requires a minimum one foot freeboard height in all Velocity (V) and Coastal A Zones. New and substantially rebuilt structures in the A Zone must be built to V Zone standards. There are also residential construction requirements for areas with high wind conditions, which includes Block Island.

### **Port of Galilee:**

The Port of Galilee is owned by the State of Rhode Island and managed by the Department of Environmental Management. While its principal use is commercial fishing – it is the state’s largest fishing port – year-round ferry transportation to and from Block Island is entirely reliant upon the ferry terminal and the large areas set aside for over-night and long-term parking. The future of the port as a commercial fishing hub and as a ferry terminal is protected to a large degree by its public ownership. However, the impact of sea level rise and storm surges on the

port should be thoroughly studied by the State, with input from both New Shoreham and the Town of Narragansett. To protect the operation of the ferry service, including roadway access to the terminal, plans should be developed to respond to damage from major storms. Eventually, adaptation techniques will need to be developed and implemented to respond to the inevitable rise of sea level.



Ferry boat and fishing vessel, Port of Galilee

### **Block Island Airport:**

The Block Island Airport, owned and managed by the State of RI, is a very active airport, especially during the summer season. Aside from the ferry service and private boats, it provides the only other means of transport to and from the island. High winds and fog often shut down air traffic, and it is obviously not operational during a severe storm. The short runway cannot support larger planes. However, the airport may provide emergency access for supplies and transport in the event of extreme storm damage to the ferry terminal harbors on or off island for an extended time. Investigations should be undertaken to evaluate the runway length for landing and takeoff of cargo planes under such emergencies.

## **Local Planning and Regulatory Efforts**

### **Planning and Zoning:**

The Town will include the results of this study, as well as an evaluation of the impact of sea level rise on the island as a whole, in the update to the New Shoreham Comprehensive Plan scheduled for early 2014.

As a result of the dramatic impacts depicted by the sea level rise maps, the Town should evaluate its land use and building regulations to consider future development and redevelopment in the most critically impacted inundation areas. Presently, the Town has an established Coastal Zone, a highly restrictive district in terms of allowable uses, which consists of all landward area 100 feet from a delineated coastal feature, such as a bluff, dune, coastal pond or wetland. The Coastal Zone is not currently mapped as it depends upon field verification by the RI CRMC of these coastal features. It is important that this zone be mapped and that the 100 foot setback and restrictions on development be maintained in the zoning ordinance. The Town may also want to consider changes to building heights in areas susceptible to coastal flooding to accommodate additional freeboard.

## **Land Acquisition:**

The Town and private conservation organizations should consider vulnerable areas in their land acquisition programs. As an example, in 2012, the Block Island Land Trust and the Block Island Conservancy purchased two parcels and received a conservation easement over a third, to protect a total of 1.3 acres of land along Corn Neck Road, in the area that sustained direct damage from Super Storm Sandy. They have since removed a dilapidated building located on one of the lots and are making plans for public use (with no permanent structures).



Corn Neck property acquired by the Block Island Land Trust

## **Dune Restoration/Shoreline Management:**

Dunes serve as a vital barrier to protect against storm surges. Their loss or erosion can lead to greater risk to the properties lying behind. The Conservation Commission and other island groups should continue their program of fencing the dunes in order to build and stabilize them and to aid in beach replenishment, as needed. It is recommended that the town and private organizations on the island that deal with environmental issues work together, in conjunction with state agencies, to prepare for storms and sea level rise using natural systems and in a sustainable manner.

## **Emergency Management Procedures:**

The inundation mapping indicates that under certain extreme storm conditions, much of the harbor and village area of Block Island will be flooded. For example, in the event of a major storm occurring at high tide and with a significant storm surge that together mimic the impact of three feet of sea level rise, parts of the island will be isolated. If Ocean Avenue is flooded in parts and Corn Neck Road is damaged as it was during Sandy in the area south of its intersection with Beach Avenue, road access between the public safety complex and most of the rest of the island will be cut off. The police, fire and rescue services must eventually prepare for such an event, including setting up a satellite public safety center and stationing fire engines and fully equipped ambulances at other island locations.

Hurricane planning involving summer visitors should also be strengthened. Block Island is a beloved vacation destination. Spending part of a summer on the island requires advance planning, particularly if one brings over a vehicle, and often involves a large expense, so there is a natural reluctance to cut short a vacation. Stronger policies requiring departure from the island, combined with incentives could be considered. Hotel and inn keepers and owners of vacation rentals should all play their part in terms of flexibility regarding the cost of vacation time lost to a storm. Travel insurance to be used specifically in the event of a hurricane or dangerous storm could be offered, even in a collective fashion, on Block Island. These issues will be more thoroughly addressed when the Town updates its Hazard Mitigation Plan in 2016.

### **Future Studies / Data Needs**

In order to adequately prepare for the impacts of sea level rise and storm surges, both in terms of maintaining vulnerable infrastructure and providing for public safety, all levels of government must be actively involved. Efforts include acquiring and updating scientific information, developing solutions, creating programs and policies, and of course, communicating with each other and with the public. There are a number of studies which the Town of New Shoreham and the State of Rhode Island would benefit from.

#### **Measuring, Modeling and Storm Tracking:**

- Rhode Island and Block Island must continue to monitor actual regional and local sea level heights and update their own projections of sea level rise based on ongoing scientific studies.
- The sea level rise inundation mapping for Block Island should be refined and updated based on more accurate elevation data.
- To aid in determining the impacts of storm surges, as well as possible mitigation strategies, hydrologic studies of the Great Salt Pond and Trim's Harbor Ponds should be undertaken. These include tide and current measurements and dye tests to determine circulation patterns.
- Shoreline change and bluff erosion mapping of Block Island should be completed by the Coastal Resources Management Council with assistance from the Town.
- Due to the uncertainty of future hurricane activity in terms of frequency, size and tracking, the State of Rhode Island should undertake hurricane surge modeling for the Rhode Island coastal zone, as was done recently for New York City<sup>7</sup>.

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<sup>7</sup> "Physically based assessment of hurricane surge threat under climate change", Ning Lin, Kerry Emanuel, Michael Oppenheimer and Erik Vanmarcke, Nature Climate Change, June 2012

## **Maintaining Public Awareness:**

Much has been written about the issue of climate change and the difficulty our culture and political system have in responding, in both addressing the man-made causes and dealing adequately with the impacts. As long as there is a small but loud minority challenging accepted science, an uncertainty of the role that climate change plays in recent extreme weather events, and the relative infrequency of very damaging coastal storms, addressing a problem that has both a long term cause and effect is a real challenge. Focusing on the sea level rise that will happen fifty or one hundred years from now is difficult for decision-makers, especially when the response may require great expense and there are urgent immediate needs for public resources. This is compounded by the fact that the actual impacts are and will be felt differently in different parts of the country and even differently within one region or one state.

Block Island must remain committed to studying and responding to the issues of climate change and sea level rise. This includes working with the State to continuously update the scientific data, and to keep adaptation always in mind when developing policies, planning for the future and regulating development in future inundation areas.

## **APPENDICIES**

### **Maps**

Figure A-1 Project Study Area

Figure A-2 Project Study Area with all SLR Inundation Zones

Figure A-3 Old Harbor, Village & Corn Neck Road Plan

Figure A-4 Ocean Avenue & Beach Avenue Plan

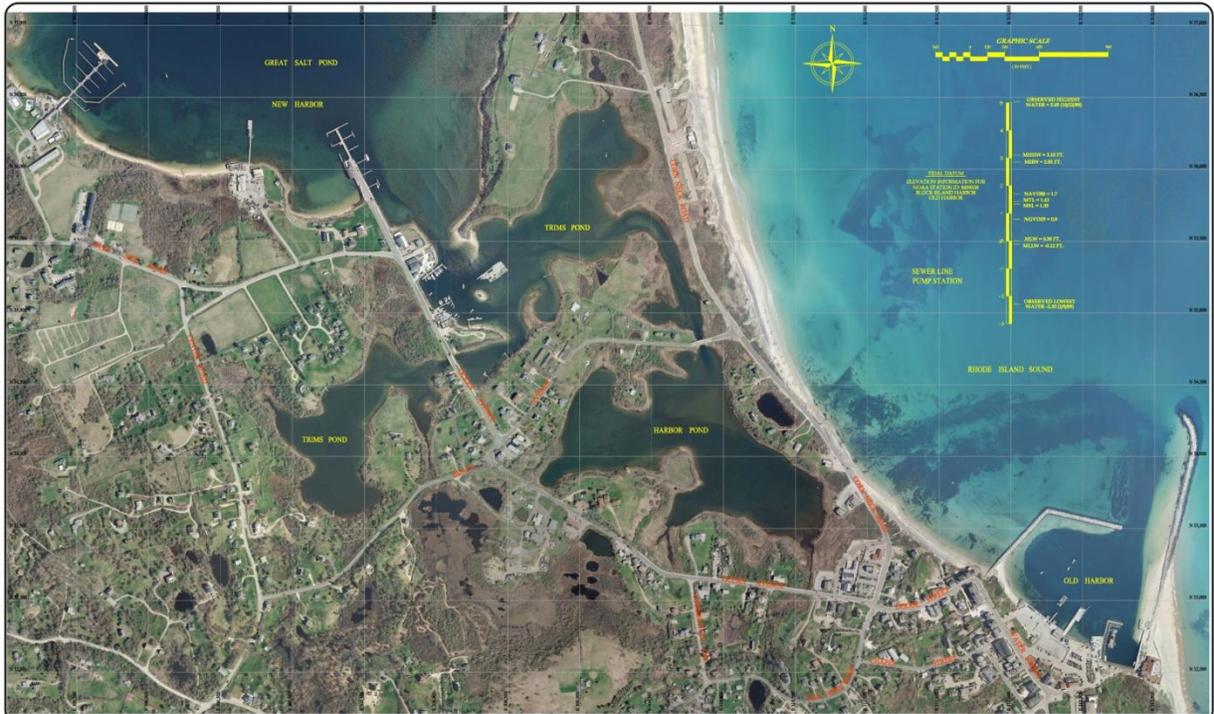
Figure A-5 New Harbor Plan

Figure A-6 Project Study Area with 1 foot SLR

Figure A-7 Project Study Area with 3 foot SLR

Figure A-8 Project Study Area with 5 foot SLR

### **Public Informational Pamphlet**



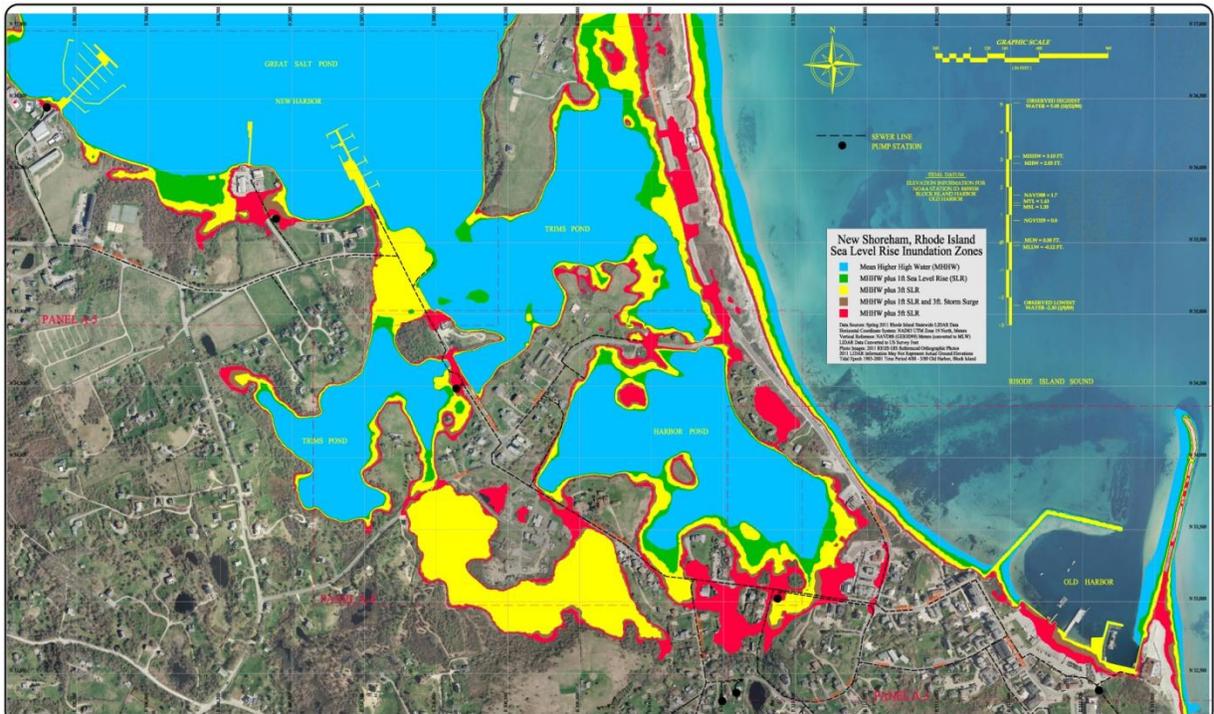
**New Shoreham, Rhode Island**  
 PREPARED FOR:  
 Town of New Shoreham  
 P.O. Drawer 220,  
 Block Island, Rhode Island

PREPARED BY:  
**FAIRBANKS ENGINEERING, CORP.**  
 42 CORBESTONE HILL ROAD  
 EXETER, RI 02822  
 Phone: 401.294.3300 email: info@fairbanks-engineering.com

NO.	REVISIONS

**SEA LEVEL RISE ADAPTATION STUDY**  
**Block Island Harbors - Project Study Area**  
 DESIGNED BY: M. ST. JEAN DATE: 1/15/2019 CHECKED BY: M. FAIRBANKS DATE:        
 SCALE: 1" = 400' PROJECT:      TOWN: NEW SHOREHAM STATE: RI

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 OF 3



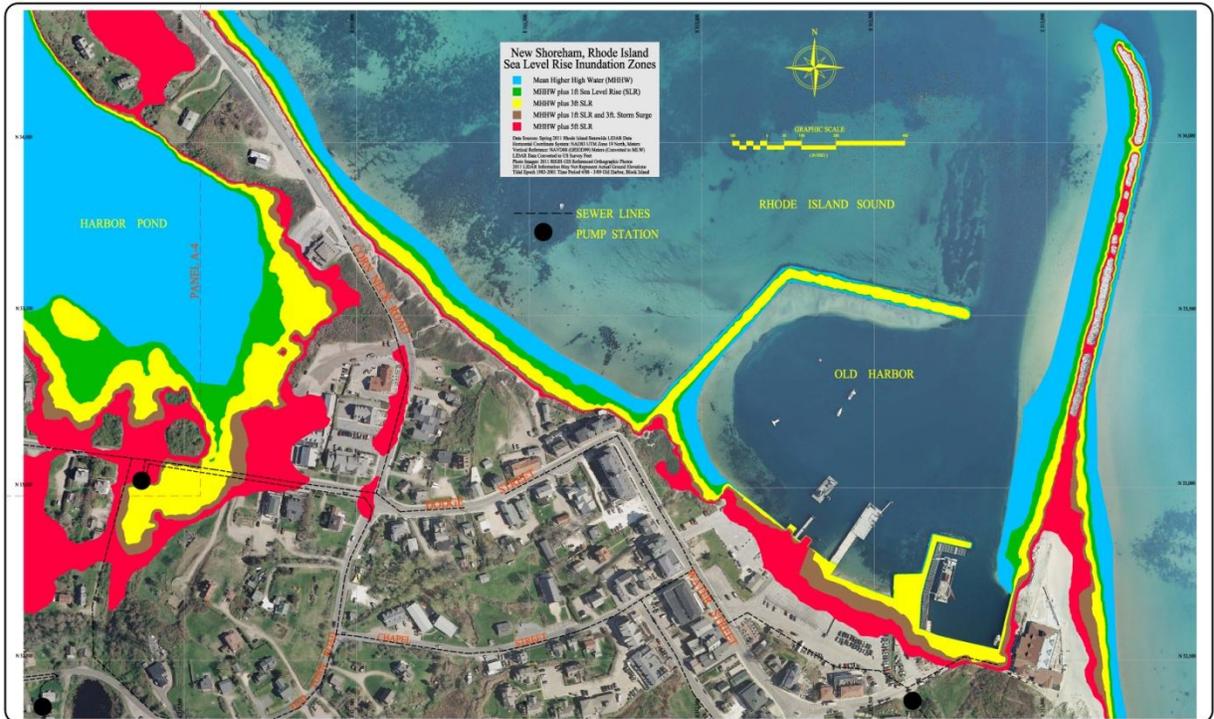
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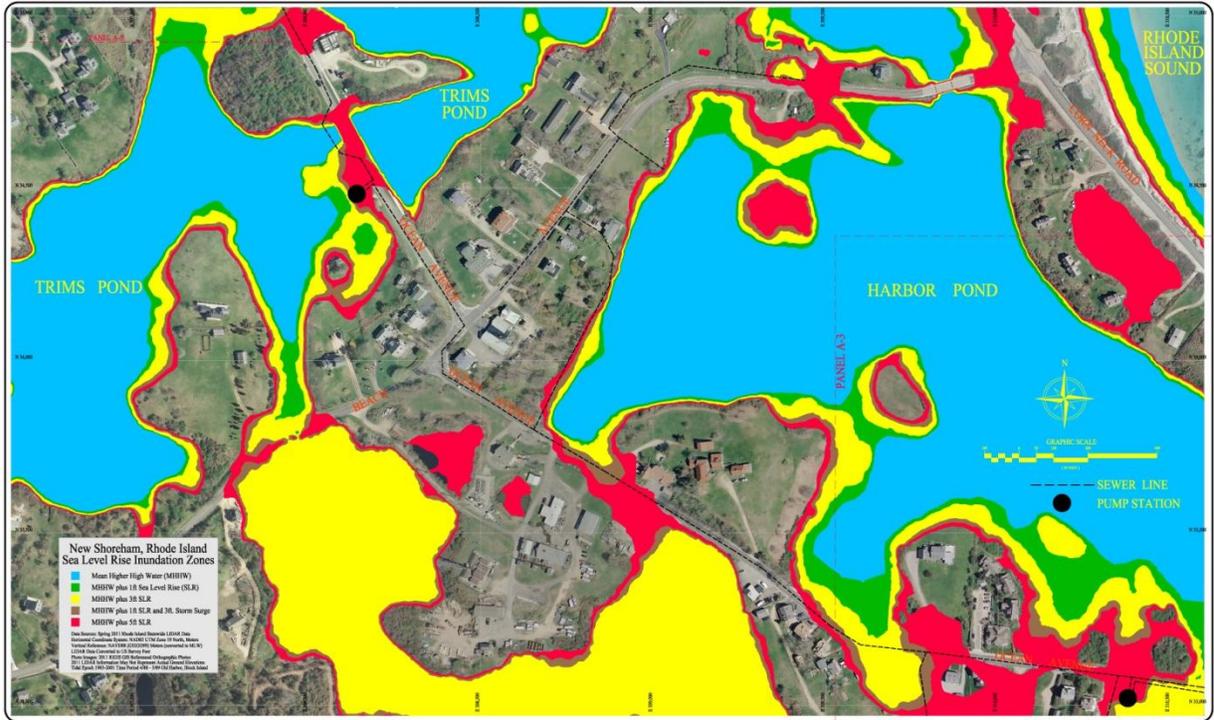
NO.	REVISIONS

**SEA LEVEL RISE ADAPTATION STUDY**  
**Project Study Area with all SLR Inundation Zones**  
 DESIGNED BY: M. ST. JEAN DATE: 1/15/2019 CHECKED BY: M. FAIRBANKS DATE:        
 SCALE: 1" = 400' PROJECT:      TOWN: NEW SHOREHAM STATE: RI

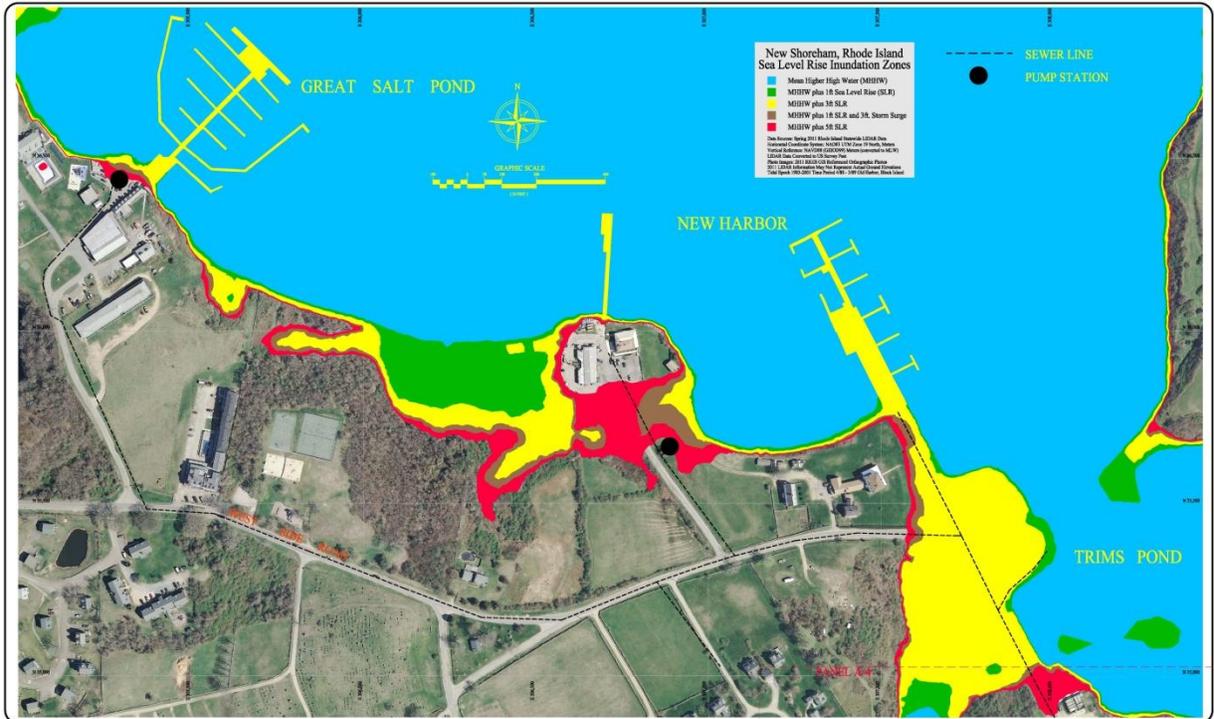
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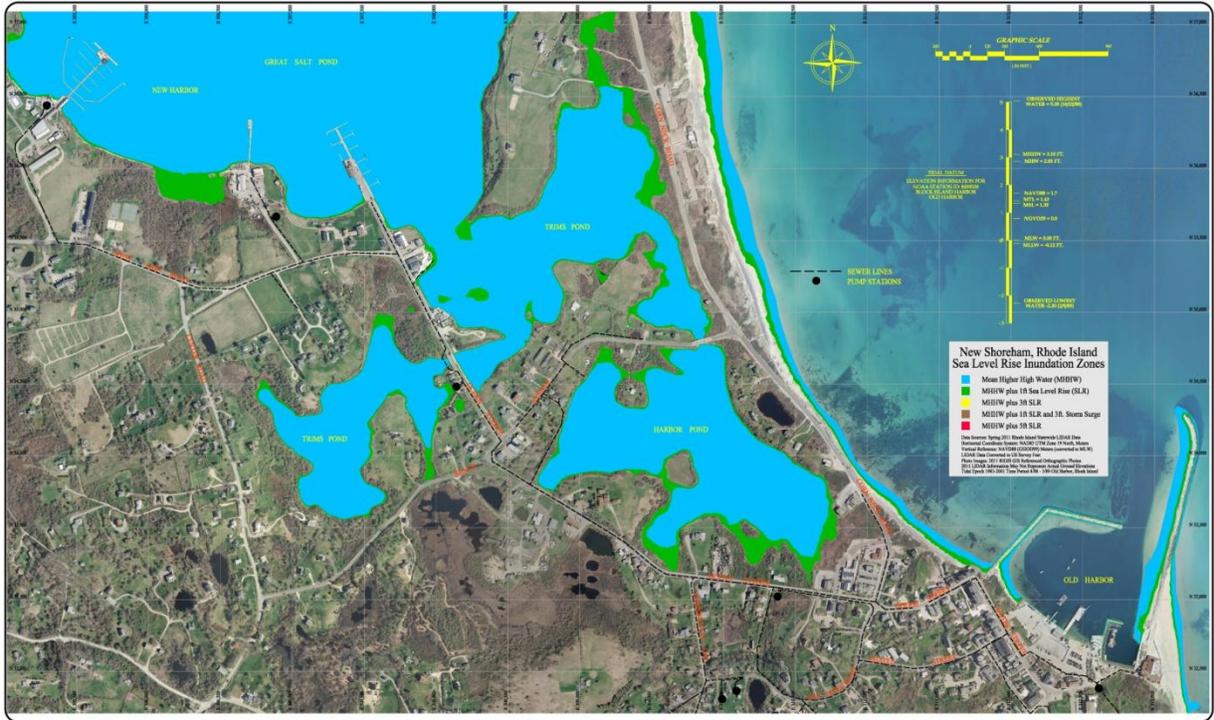
<b>New Shoreham, Rhode Island</b> PREPARED FOR: Town of New Shoreham P.O. Drawer 220, Block Island, Rhode Island	PREPARED BY: <b>FAIRBANKS ENGINEERING, CORP.</b> 42 CORBLETSTONE HILL ROAD EXETER, RI 02822 <small>Phone: 401.294.3333 email: info@fairbanksengineering.com</small>	REVISIONS	<b>SEA LEVEL RISE ADAPTATION STUDY</b> <b>Old Harbor Village &amp; Corn Neck Road Plan</b>		SHEET NO. <b>A-3</b> OF
			DESIGNED BY: R. ST. JEAN DATE: 1/15/2019 SCALE: 1"=60' HORIZ. 1"=6' VERT.	CHECKED BY: M. FAIRBANKS DATE:	



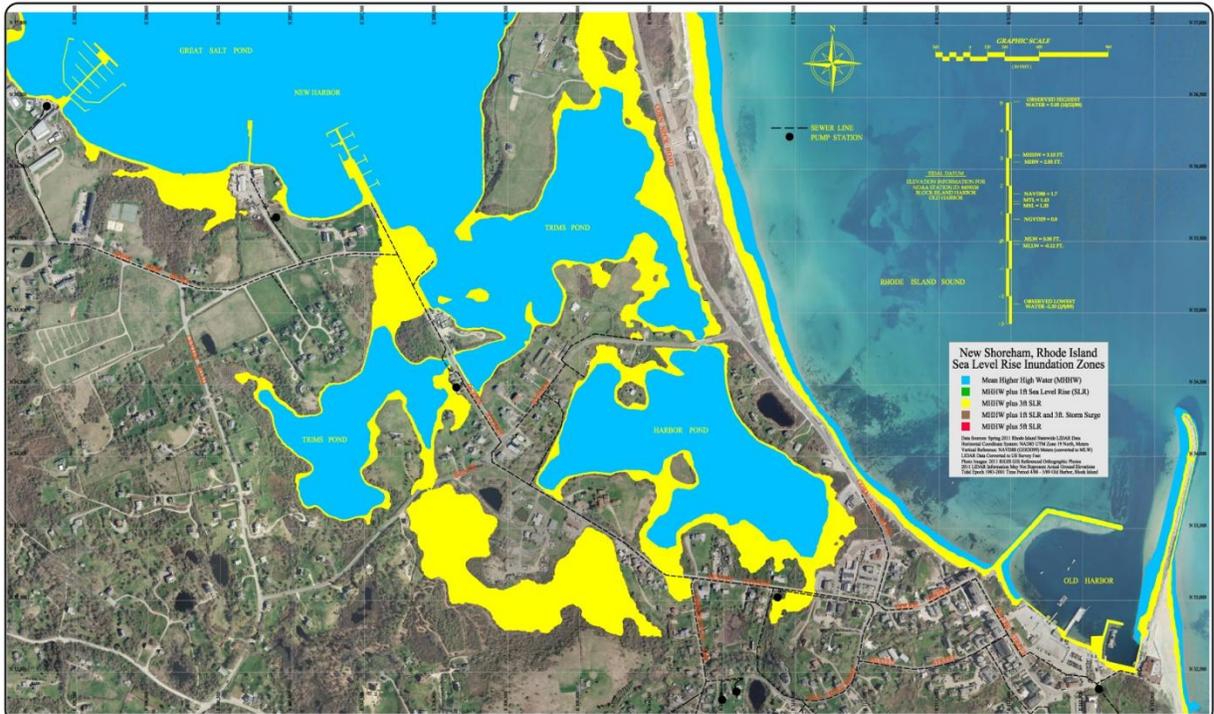
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			DESIGNED BY: R. ST. JEAN DATE: 1/15/2019 SCALE: 1"=60' HORIZ. 1"=6' VERT.	CHECKED BY: M. FAIRBANKS DATE:	



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REVISIONS		DESIGNED BY: R. ST. JEAN DATE: 1/10/2019 CHECKED BY: R. FAIRBANKS DATE:		DRAWN BY: DATE:		SCALE: 1" = 500' HORIZ. DATE:



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REVISIONS		DESIGNED BY: R. ST. JEAN DATE: 1/10/2019 CHECKED BY: R. FAIRBANKS DATE:		DRAWN BY: DATE:		SCALE: 1" = 500' HORIZ. DATE:



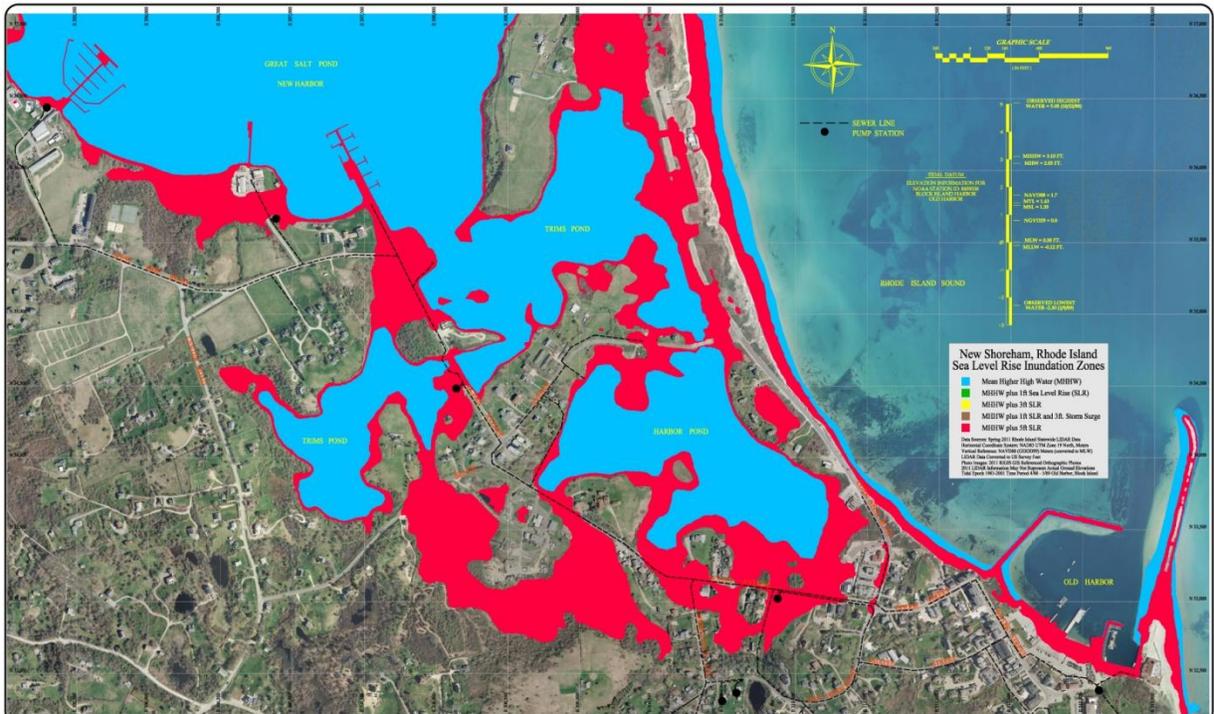
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NO.	DESCRIPTION	DATE	BY

**SEA LEVEL RISE ADAPTATION STUDY**  
**Project Study Area with 3 foot SLR**  
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 SCALE: 1"=60' + 3/4" PER FT. SOURCE: NAD 83 DATUM: NAD 83

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 EXETER, RI 02822  
 Phone: 401.294.3300 email: info@fairbanksengineering.com

NO.	DESCRIPTION	DATE	BY

**SEA LEVEL RISE ADAPTATION STUDY**  
**Project Study Area with 5 foot SLR**  
 DESIGNED BY: R. ST. JEAN DATE: 1/15/2019 CHECKED BY: R. FAIRBANKS DATE: 1/15/2019  
 SCALE: 1"=60' + 3/4" PER FT. SOURCE: NAD 83 DATUM: NAD 83

SHEET NO. **A-8**  
 OF

## **SEA LEVEL RISE ON BLOCK ISLAND HOW WILL IT AFFECT YOU?**

Our climate is changing. Rhode Island is experiencing warmer air temperatures, increased Bay temperatures, more extreme weather events and accelerated sea level rise. Since 1930, sea level rise as measured by tide gages in Newport has risen at a rate of about 1 inch every 10 years, but this rate is increasing. In another 20 years it is probable the sea level will rise several more inches. This heightened sea level means higher high tides and greater storm surges. The result will be greater coastal flooding and erosion, and more widespread property damage.

Owing to its geographical location, Block Island is vulnerable to hurricanes, coastal storms and nor'easters. The community is dependent on privately owned ferry and airline companies for transport to and from the mainland. The island's residents must plan for inevitable long term impacts that a rising sea will have on its two harbors and village roads. Residents and visitors alike must prepare for the next inevitable coastal storm on the scale of a Super Storm Sandy, which caused significant damage to roads, buildings and marine facilities due to wave action, storm induced erosion and flooding.



**Damage to Corn Neck Road from Super Storm Sandy  
October 2012**

A 2013 study\* of the impact of sea level rise on the Block Island harbors and connecting roadways included preparation of maps illustrating areas predicted to be inundated under various scenarios. The maps demonstrate vulnerable flood damage areas that result as sea levels rise over the long term. Under extreme storm conditions in the near term, certain roads, bridges and marine areas, particularly Old Harbor and the ferry landing site and the roads leading into New Harbor, are also vulnerable to flooding and damage. This will result in some areas of the island becoming temporarily isolated. Ferry travel to and from the island may be disrupted beyond the anticipated normal storm duration. This information is important both for emergency planning purposes, and for scheduling and designing major infrastructure replacement.

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\* See *Block Island Harbors; Sea Level Rise Adaptation Study* at <http://www.new-shoreham.com>



## Legal & Public Notices

### PUBLIC NOTICE

The New Shoreham School Committee, at its meeting held on Monday, September 19, 2016, approved the posting of the following policies for the required 20-day period prior to adoption: Policy DEB: Surveillance and Security Cameras Policy IF: Senior Privileges  
Copies are available for community perusal during normal business hours at the Island Free Library, the Block Island School, and on the school's website (blockislandschool.net).

### PUBLIC NOTICE

**Election Reminders: Register to Vote**  
October 9, 2016 is the last day to register to vote in the November 8, 2016 Presidential Election. If you are a New Shoreham resident, you may register at the Town Clerk's Office at Town Hall, Old Town Road Monday through Friday between 9:00 a.m. and 3:00 p.m. before the deadline, or at the Police Station on Beach Avenue on Sunday October 9, 2016 between 1:00 p.m. and 4:00 p.m. You may also register online from the RI Secretary of State's Website until midnight October 9. Call the Town Clerk's Office at 466-3200 if you have questions!

### PUBLIC NOTICE

**Election Reminders**  
Not too late to apply for Mail Ballot Absentee Ballot Applications: October 18 is the deadline to apply for a mail ballot for the November 8, 2016 General Election. Mail ballot applications are available at Town Hall or on the RI Secretary of State's website: <http://www.sos.ri.gov>. The application must be turned in to the Town Clerk's Office by 4:00 pm Tuesday, October 18. Call the Town Clerk's Office at 466-3200 if you have questions!  
Posted September 25, 2016

### PUBLIC NOTICE

New Shoreham Board of Canvassers Meetings  
Town Hall, Old Town Road, Block Island  
Tuesday, October 18, 2016  
9:00 a.m.  
1. Conduct the final canvass and correct the list of qualified voters for November 7, 2016 General Election  
2. Final Planning Session for General Election  
Individuals requesting interpreter services for

the deaf and hard of hearing must call (401) 466-3200 forty-eight hours in advance of the meeting date. TTY: 711. Posted: October 3, 2016/FF

### PUBLIC NOTICE

Notice of Public Hearing  
Proposed Amendment to New Shoreham General Ordinances  
And the New Shoreham Harbor Management Plan  
Chapter 9 Marine Activities, Areas and Structures  
Section 9-87 "Mooring application process and waiting list procedure"  
And Section 9-87(d) "Permit renewal"  
Town Hall, Old Town Road, Block Island RI  
Wednesday, November 16, 2016  
7:00 PM

The New Shoreham Town Council will hold a public hearing at the time and place referenced above to discuss and act on proposed changes referenced above, which appear below with proposed changes underlined. Copies of Chapter 9, Section 87 in its entirety with changes indicated available on Town's website (new-shoreham.com), at Town Clerk's Office and at Island Free Library.

Proposed amendments to ordinance Sec. 9-87(b) and Sec. 9-87(d)(1)  
Sec. 9-87. - Mooring application process and waiting list procedures.

(a) No mooring shall be located in the coastal waters and harbor areas of the town until a permit has been issued for the use of such mooring by the harbor master. No mooring shall be located nor maintained unless the mooring owner has received a valid mooring permit issued by the harbor master for the mooring and the mooring conforms to the specifications and standards set forth in this article and permit.

(b) Request for a new mooring permit. To be eligible for a mooring permit, an applicant must own a vessel for which a mooring permit is being sought; provided, however, that the following shall not be considered vessels for which a mooring permit may be obtained: paddle boards; kayaks; canoes; boats under eleven feet (11') in length; and derelict vessels. Applications for new mooring permits shall be submitted to the harbors department with the appropriate fee by December 15 of each year. Mooring permit applications are available at the harbors department

office. A complete and accurate mooring permit application must be provided before the harbors department can act to approve or deny such application. The harbors department shall determine if a new mooring permit can be issued only after all provisions of the harbor management plan and these ordinances are met. If an applicant does not own a vessel, the permit may be held in name only for one year.

(c) If the harbors department issues a mooring permit, the mooring owner for which the permit has been issued must locate and place the mooring at the direction of the harbor master or assistant in accordance with the harbor management plan and this ordinance.

(d) Permit renewals.

(1) Applications for renewal of a mooring permit will be submitted to the harbors department on the application forms provided by the harbors department by December 15 of each year. To be eligible for a renewal of a mooring permit, an applicant must own a vessel for which the mooring permit renewal is being sought; provided, however, that the following shall not be considered vessels for which a mooring permit may be obtained: paddle boards, kayaks, canoes, boats under eleven feet (11') in length; and derelict vessels. An application shall be accompanied by the appropriate fee and shall be received by December 15 in the offices of the harbors department. Failure to submit a complete and accurate application by December 15 may result in the loss of mooring permit.

(2) The harbors department shall mail the application forms by October 15 of each year to those persons who held valid mooring permits at the end of the previous calendar year, to the address listed on their last mooring permit. It shall be the responsibility of the mooring permit holder to notify the harbors department of any change in address.

(3) The harbors department shall approve or reject mooring permit applications by March 1.

The Town Council will hold a public hearing on the foregoing at the time and place above, when all persons for or against may be heard and the Town Council may act on this proposal and/or amendments hereto.

Attest: Town Clerk Fiona Fitzpatrick  
Posted: September 25, 2016  
Hearing: November 16, 2016

### PUBLIC NOTICE

The Planning Board Meeting  
Wednesday, October 12, 2016  
12:00 P.M. @ Town Hall, Old Town Road  
Block Island, RI 02807  
The Town of New Shoreham Planning Board will be in session for a special meeting on Wednesday, October 12, 2016 at 12:00 PM at the Town Hall, Old Town Road, Block Island, RI.

AGENDA  
• PUBLIC HEARING  
for the New Shoreham Comprehensive Plan.  
(Continued from October 5, 2016)

The Proposed Comprehensive Plan is a land use plan and is an update of the Town of New Shoreham Comprehensive Plan 2002 with updates through 2009. These amendments are made in accordance with the provisions of chapter 45-22.2 of the General Laws of the State of Rhode Island. Consideration, Approval, and Recommendation of Adoption to Town Council of new Town of New Shoreham Comprehensive Community Plan.

• Discussion regarding the October 5, 2016 meeting with the USDA.  
Individuals requesting interpreter services for the deaf and hard of hearing must call 466-3200 forty-eight hours in advance of the meeting date.  
TTY:711 jbb 10/6/16

## **PUBLIC NOTICE**

THE ZONING BOARD OF REVIEW  
Wednesday, September 28, 2016  
5:00 P.M. @ Town Hall, Old Town  
Road

### **AGENDA**

The Town of New Shoreham Zoning Board of Review will be in session for a meeting on Wednesday, September 28, 2016 at 5:00 P.M. at the Town Hall, Old Town Road.

THE AGENDA IS SUBJECT TO  
CHANGE BY THE CHAIRMAN OR  
UPON MOTION OF ANY MEMBER

New Shoreham Board of Appeal  
Hearings, Wednesday, September 28,  
2016, 5:00pm

- Block Island School. Plat 10, Lot 1. Appeal by Cathy Payne of the Decision of the Planning Board dated May 24, 2016.

- Island Enterprises, Inc. Plat 8, Lot 84-6. Appeal of correspondence from the Building Official dated June 6, 2016.

Zoning Board of Review - Hearings:

- Battyville, LLC. Plat 4, Lot 32-3. Application for a conditional for a Variance under Sections 113 (C) (1) and 306 (C) regarding an accessory building.

- Thomas, Elizabeth. Plat 3, Lot 109-1. Application for a Variance from Sections 306(C) and 511 to convert and existing garage/shed to a garage/accessory residential structure/shed building.

- Gordon, Michael and Carol. Plat 13, Lot 24. Application for a Variance from Sections 113(E) and 306(C) for construction of a single family dwelling.

- Sargent, Michael and Nancy. Plat 20, Lot 8-3. Application for a Variance from Section 306(C) for construction of a garage.

Decisions:

- Battyville, LLC. Plat 4, Lot 32-3. Appeal of a Stop Work Order from the Building Official dated June 15, 2016.

Approval of Minutes

THE ZONING BOARD'S POLICY IS  
TO ADJOURN AT 8:30 P.M.

Individuals requesting interpreter services for the deaf and hard of hearing must call 466-3200 forty-eight hours in advance of the meeting date. TTY:711 JBB 9/21/16

## **PUBLIC NOTICE**

TOWN OF NEW SHOREHAM  
PLANNING BOARD

NOTICE OF PUBLIC HEARING

Notice of Public Hearing of proposed  
Comprehensive Plan Update

Notice is hereby given of a public hearing before the Planning Board of the Town of New Shoreham, at which the proposed approval of the Town of New Shoreham Comprehensive Plan Update will be considered. The public hearing shall be held at the:

Town of New Shoreham Town Hall, Old Town Road, Block Island  
on Wednesday, October 5, 2016 at 7:00pm.

The Proposed Comprehensive Plan is a land use plan and is an update of the Town of New Shoreham Comprehensive Plan 2002 with updates through 2009. These amendments are made in accordance with the provisions of chapter 45-22.2 of the General Laws of the State of Rhode Island.

The proposed text to be considered is available for public review, and may be examined in the Land Use Office at Town Hall generally between the hours of 9:00am to 3:00pm and is available on the town's website at <http://new-shoreham.com/>

The plan may be altered or amended prior to the close of the public hearing without further advertising, as a result of further study or because of the views expressed at the public hearing.

### **Financial Town Meeting**

**Monday, September 26, 2017**

**BI School Gymnasium, High**

**Street**

**7:00 PM**

Come to the meeting to vote on purchase of the Block Island Power Company and work in the West Beach/former landfill area: West Beach revetment, sealing the landfill, and improving drainage at the Transfer Station. There will be an informational meeting at Town Hall on Saturday, September 24, 2016 at 4:00 to discuss the Power Company purchase. The Warrant with the wording of the questions is available on the Town's website [new-shoreham.com](http://new-shoreham.com) and posted at the Library, Town Hall and Police Department.

## Legal & Public Notices

### PUBLIC NOTICE

#### TOWN OF NEW SHOREHAM PLANNING BOARD

#### NOTICE OF PUBLIC HEARING

Notice of Public Hearing of proposed  
Comprehensive Plan Update

Notice is hereby given of a public hearing  
before the Planning Board of the Town  
of New Shoreham, at which the proposed  
approval of the Town of New Shoreham  
Comprehensive Plan Update will be con-  
sidered. The public hearing shall be held  
at the:

Town of New Shoreham Town Hall, Old  
Town Road, Block Island  
on Wednesday, October 5, 2016 at  
7:00pm.

The Proposed Comprehensive Plan is  
a land use plan and is an update of the  
Town of New Shoreham Comprehensive  
Plan 2002 with updates through 2009.  
These amendments are made in accor-  
dance with the provisions of chapter  
45-22.2 of the General Laws of the State  
of Rhode Island.

The proposed text to be considered is  
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Town Hall generally between the hours of  
9:00am to 3:00pm and is available on the  
town's website at <http://new-shoreham.com/>

The plan may be altered or amended prior  
to the close of the public hearing without  
further advertising, as a result of further  
study or because of the views expressed  
at the public hearing.

### PUBLIC NOTICE

#### INVITATION TO BID

Block Island School  
Block Island, RI 02807  
Sealed bids from contractors will be  
received by the School Superintendent,  
BLOCK ISLAND, RHODE ISLAND  
until October 6, 2016 at 2:00 P.M. for the  
BLOCK ISLAND SCHOOL SOLAR  
ARRAY at the office of the School  
Superintendent, #15 High Street, P.O.  
Box 1890, Block Island, RI 02807 on and  
at that time and place, bids will be public-

ly opened and read aloud.

Contract Documents may be obtained at  
the office of the School Superintendent,  
#15 High Street, P.O. Box 1890, Block  
Island, RI 02807 between the hours  
of 8:00 A.M. and 4:00 P.M., Monday  
through Thursday and Friday 8:00 AM to  
12:00 noon, starting September 16, 2016.  
There is a \$25.00 non-refundable charge  
for each of the Contract Documents.

Check shall be made payable to "Town of  
New Shoreham". **ONLY ONE SET PER  
CONTRACTOR WILL BE PROVIDED.**

Bidders with questions may contact  
Samuel Bird, RA at (617) 538-7633 or  
by email: [facilitiesr@new-shoreham.com](mailto:facilitiesr@new-shoreham.com).  
Bidders requesting Contract Documents  
by mail (via Federal Express only) shall  
forward a separate, non-refundable  
check (payable to the "Town of New  
Shoreham.") in the amount of \$25.00 per  
set to cover costs of handling. Plans and  
specs will not be shipped until the \$25.00  
fee is received by the School Department.  
No Bidder may withdraw their Bid for a  
period of one hundred twenty (120) days,  
excluding Saturdays, Sundays and legal  
holidays, after the date of the opening of  
the Bids.

Each Bid shall be submitted in accor-  
dance with the Instructions to Bidders  
and be accompanied by a Bid Security  
in the designated form in the amount of  
5-percent (5%) of the Bid. Bid Security  
will be refunded to all bidders following  
award and execution of the contract.  
Complete instructions for filing Bids are  
included in the Instructions to Bidders.  
The Owner reserves the right to waive  
any informality in or to reject any or all  
Bids if deemed to be in its best interest.  
Bidders shall adhere to the provisions of  
State Labor Laws concerning payment of  
prevailing wages.

Bidders on this work will be required to  
comply with the President's Executive  
Order No. 11246, entitled "Equal  
Employment Opportunity" (as amend-  
ed by Executive Order 11375) and as  
supplemented in Department of Labor  
Regulations 41 CFR Part 60. The

requirements of Bidders and Contractors  
under this Order are explained in the  
Instructions to Bidders.

Minority business enterprises as defined  
by R.I. General Laws Section 37-14.1-3  
shall have the maximum opportuni-  
ty to participate in the performance  
of Subcontracts performed under this  
agreement. The Contractor will take all  
reasonable steps in accordance with the  
regulations promulgated under Chapter  
37-14.1 of the Rhode Island General  
Laws to ensure that minority business  
enterprises have the maximum opportu-  
nity to compete for and perform subcon-  
tracts under this agreement.

Individuals requesting interpreter services  
for the hearing impaired must notify the  
Town Clerk (401)466-3200 three (3) busi-  
ness days prior to the bid opening.

Dated: September 14, 2016

Samuel Bird, RA  
Facility Manager

### PUBLIC NOTICE

The New Shoreham School  
Committee, at its meeting held on  
Monday, September 19, 2016, approved  
the posting of the following policies for  
the required 20-day period prior to adop-  
tion:

Policy DEB: Surveillance and Security  
Cameras  
Policy IF: Senior Privileges  
Copies are available for community  
perusal during normal business hours at  
the Island Free Library, the Block Island  
School, and on the school's website  
([blockislandschool.net](http://blockislandschool.net)).

### PUBLIC NOTICE

#### Election Reminders: Register to Vote

October 9, 2016 is the last day to reg-  
ister to vote in the November 8, 2016  
Presidential Election. If you are a New  
Shoreham resident, you may register at  
the Town Clerk's Office at Town Hall,  
Old Town Road Monday through Friday  
between 9:00 a.m. and 3:00 p.m. before  
the deadline, or at the Police Station on  
Beach Avenue on Sunday October 9,  
2016 between 1:00 p.m. and 4:00 p.m.  
You may also register online from the  
Secretary of State's Website until mid-  
night October 9. Call the Town Clerk's  
Office at 466-3200 if you have questions!

## Legal & Public Notices

### PUBLIC NOTICE

All boats must be removed from the public beaches at Mosquito Beach, Andy's Way, Narragansett Beach, the Boat Basin and Bonnell Beach by November 15th 2016.  
Please call the Harbor's Department with any questions at 401-466-3204.

### LEGAL NOTICE

of hearings on applications for Development Plan Review.

NOTICE IS HEREBY GIVEN that the Town of New Shoreham Planning Board will be in session at the Town Hall on Wednesday, November 9, 2016 at 4:00 P.M. for its regular monthly meeting. All persons interested will be heard for or against the granting of the following application:  
Philip and Alicia Hammarskjöld Trust, Plat 19, Lot 51-1. PUBLIC HEARING for an Application for Development Plan Review construction of a single family dwelling, second dwelling unit, garage with accessory residential structure and an accessory residential structure.

### PUBLIC NOTICE

Renewal of Outdoor Entertainment Licenses

October 26, 2016  
The Town of New Shoreham will hold a Public Hearing regarding the renewal of Outdoor Entertainment Licenses, for outdoor amplification or entertainment, pursuant to Chapter 8, Article X. of the Revised Ordinances of the Town of New Shoreham, on Monday, November 14, 2016 at 4:00 p.m. at the Town Hall, Old Town Road, Block Island.

The following named establishments have made applications with the Office of the Town Clerk:

- ¥ Rita Draper, d/b/a 1661 Inn
  - ¥ Aldo's Place, Inc., d/b/a Aldo's Restaurant and Pizzeria
  - ¥ ABM, Inc., d/b/a The Atlantic Inn
  - ¥ Shoreham, Inc., d/b/a Ballard's Inn
  - ¥ Beachhead II, LLC, d/b/a The Beachhead
  - ¥ On-Island Entertainment Management, Inc., d/b/a Captain Nick's
  - ¥ Champlin's Trader Vic's, Inc., d/b/a Champlin's Trader Vic's
  - ¥ Ernie's Old Harbor Restaurant, Inc., d/b/a Finn's Seafood Restaurant
  - ¥ Island Entertainment, Inc. d/b/a Inn at the Spring House
  - ¥ Cecil's Blackrock Grille, LLC d/b/a Kimberly's
  - ¥ Manisses Restaurant, Inc. d/b/a Manisses Restaurant
  - ¥ KSR Enterprises, LLC, d/b/a The Narragansett Inn
  - ¥ Coastal Resorts International, Inc., d/b/a National Hotel
  - ¥ Humphries, Inc., d/b/a The Oar
  - ¥ Old Island Pub, LLC, d/b/a Old Island Pub
  - ¥ Island Pond, Inc. d/b/a Payne's Dock
  - ¥ Poor People's Pub of Block Island, Inc. d/b/a Poor People's Pub
  - ¥ Island Entertainment, Inc., d/b/a The Spring House Hotel
  - ¥ Rosalie O'Brien Kivlehan, d/b/a The Sullivan House
  - ¥ Bea's Dream, Inc. d/b/a Surf Hotel
  - ¥ Rhode Island Seafood Enterprises, Inc. d/b/a Topside Café
  - ¥ Kamm Group, LLC d/b/a Yellow Kittens
- All persons for or against the granting of said licenses shall be heard at the time of the Public Hearing.  
Attest: Millicent A. McGinnes, MMC  
Deputy Town Clerk

### PUBLIC NOTICE

Application for New Outdoor Entertainment License

The Town of New Shoreham will hold a Public Hearing regarding the issuance of an Outdoor Entertainment License, for outdoor amplification or entertainment, pursuant to Chapter 8, Article IX. Section 8-254 of the Revised Ordinances of the Town of New Shoreham, on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, Block Island.

The following named establishments have made an application with the Office of the Town Clerk:

- Audino, Inc., d/b/a Brine Rum Bar & Grill, Corn Neck Road, Plat 5, Lot 10
- Merkaloon's, d/b/a McAloon's, Corn Neck Road, Plat 5, Lot 9
- Old Island Pub, Inc. d/b/a Old Island Pub, Ocean Avenue, Plat 6, Lot 3-3

All remonstrants are entitled to be heard before the granting of said licenses at the time of the Public Hearing

Attest: Millicent A. McGinnes  
Deputy Town Clerk

### PUBLIC NOTICE

Beverage (Liquor) License - Expansion of Liquor Service Area

Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following applications for Beverage Licenses have been made to the New Shoreham Town Clerk as follows:

- Expansion of Liquor Service Area: Class BV License
- Island Caterers, Inc. Stockholders: John P. & Adam Wronowski, Est. of Burke & Patricia Hewitt, Raymond & Susan Linda, Thomas, Tyrseck, d/b/a Dead Eye Dick's Restaurant, Ocean Avenue, Plat 5, Lot 66

Before acting on the foregoing application, the Board of License Commissioners will hold a Public Hearing on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, at which time remonstrants are entitled to be heard before the granting of said licenses.

Attest: Millicent A McGinnes, CMC  
Deputy Town Clerk  
New Shoreham Board of License Commissioners

### PUBLIC NOTICE

Relocation Application for Beverage (Liquor) License

Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following application for a transfer of Beverage License has been made to the New Shoreham Town Clerk as follows:

Relocation of Class BV Liquor License  
• Relocation of Old Island Pub, LLC, d/b/a Old Island Pub, from Corn Neck Road - Plat 5, Lot 10 to Ocean Avenue - Plat 6, Lot 3-3

Before acting on the foregoing application, the Board of License Commissioners will hold a Public Hearing on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, at which time remonstrants are entitled to be heard before the granting of said licenses.

Attest: Millicent A McGinnes  
Deputy Town Clerk  
New Shoreham Board of License Commissioners

### PUBLIC NOTICE

New Applications for Beverage (Liquor) License

Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following applications for Beverage Licenses have been made to the New Shoreham Town Clerk as follows:

- Class BV License
- Audino, Inc., Stockholders: Brenna Audino and Ross Audino, d/b/a Brine Rum Bar & Grill, Corn Neck Road, Plat 5, Lot 10
- Class C License
- Block Island Accommodations, LLC, Member: Cariona Corcoran, d/b/a Bellevue, High Street, Plat 7, Lot 73-2

Before acting on the foregoing applications, the Board of License Commissioners will hold a Public Hearing on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, at which time remonstrants are entitled to be heard before the granting of said licenses.

Attest: Millicent A McGinnes, CMC  
Deputy Town Clerk  
New Shoreham Board of License Commissioners

### PUBLIC NOTICE

Applications for Renewal of Beverage (Liquor) License

October 26, 2016  
Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following applications for Beverage License Renewals have been made to the New Shoreham Town Clerk as follows:

- Class A Beverage:
- Maclac Enterprises, Inc., Stockholders: Mark Helterline, & Mary Jane Balsler, d/b/a Block Island Grocery, Ocean Avenue
- Redbird Liquor Store, Inc., Stockholder: Caroline Todd, d/b/a Redbird Liquor Store, Dodge Street
- Class BM Beverage:
- Sachem Holdings, Inc. Stockholder: Marc Scortino, d/b/a Mohegan Café, Water Street
- Class BVL Beverage:
- B.A.D.C.G, Inc. Stockholder: Bethany Campbell Coviello, d/b/a Bethany's Airport Diner, Center Road
- Pizza Plus of Block Island, Inc. Stockholder: James R. McElderry, d/b/a Papa's Pizzeria, Corn Neck Road
- Rhode Island Seafood Enterprises, Inc., Stockholder: Matthew King, d/b/a Topside Café, Ocean Avenue
- Class BV Beverage:
- Rita Draper, d/b/a 1661 Inn, Spring Street
- Aldo's Place, Inc. Stockholders: Stephen E. Papa, Anna R. Papa, Christina L. Papa & Stephen N. Papa d/b/a Aldo's Restaurant and Pizza, Weldon's Way
- A.B.M., Inc. Stockholder: Bradford Marthens, d/b/a The Atlantic Inn, High Street
- Shoreham, Inc. Stockholder: Marion Filippi, d/b/a Ballard's Inn, Water Street
- Beachhead II, LLC, Members: Rebecca Pappas Clark & Timothy Clark d/b/a The Beachhead, Corn Neck Road
- On-Island Entertainment Management, Inc. Stockholder: Marc Scortino, d/b/a Captain Nick's, Ocean Avenue
- Champlin's Trader Vic's, Inc. Stockholders: Joseph Grillo and Susan Grillo, d/b/a Champlin's Trader Vic's, Champlin's Marina, West Side Road
- Club Soda, Inc. Stockholders: Maxon G. Balmforth, Jr. & Glenn C. McKiernan, d/b/a Club Soda, Connecticut Avenue
- Island Caterers, Inc. Stockholders: John P. & Adam Wronowski, Est. of Burke & Patricia Hewitt, Raymond & Susan Linda, Thomas Tyrseck, d/b/a Dead Eye Dick's Restaurant, Ocean Avenue

Eli's Restaurant, Inc. Stockholders: Bradford G. Marthens & Edward Y. Moon, d/b/a Eli's Restaurant, Chapel Street

Ernie's Old Harbor Restaurant, Inc. Stockholders: Frederick & Deborah Howarth, & F. Jason Howarth, d/b/a Finn's Seafood Restaurant, Water Street

Royal Hospitality Group, Inc. Stockholder: Marc Scortino d/b/a Harbor Grill, Water Street

Island Pond, Inc., Stockholders: Clif Payne & Edward Sands Payne, Ocean Avenue

Cecil's Black Rock Grille, LLC; Members: Kimberly & Norman Ward d/b/a Kimberly's, Ocean Avenue

Merkaloons, LLC, Member: Kathleen McAloon d/b/a McAloon's, Corn Neck Road

Manisses Restaurant, Inc., Stockholders: Steven Filippi, Blake Filippi & Paul Filippi d/b/a Hotel Manisses, Spring Street

KSR Enterprises, LLC; Members: Rita Draper & Steve Draper, d/b/a Narragansett Inn, Ocean Avenue

Coastal Resorts International, Inc. Stockholders: Chris Sereno & Jackie Sereno, d/b/a National Hotel, Water Street

Humphries, Inc. Stockholders: Justin Abrams Estate, Steven & Rita Draper, d/b/a The Oar, West Side Road

Old Island Pub, LLC, Member: Lewis N. Gaffett, d/b/a Old Island Pub, Corn Neck Road

Poor People's Pub Block Island, Inc. Stockholders: James Keating, Brenna Audino and Ross Audino, d/b/a Poor People's Pub, Ocean Avenue

Island Entertainment, Inc. Stockholder: Frank DiBiase, Jr., d/b/a Spring House Hotel, Spring Street

Bea's Dream, Inc., Stockholder: Lorraine Y. Cyr, d/b/a Surf Hotel, Dodge Street

Kamm Group, LLC, Membership: Block Island Sales Corp. d/b/a Yellow Kittens, Corn Neck Road

Before acting on the foregoing applications, the Board of License Commissioners will hold a Public Hearing on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, at which time remonstrants are entitled to be heard before the granting of said licenses.

Attest: Millicent A. McGinnes, MMC  
Deputy Town Clerk  
New Shoreham Board of License Commissioners

### NOTICE OF PUBLIC HEARING

Proposed Amendment to New Shoreham General Ordinances

And the New Shoreham Harbor Management Plan

Chapter 9 Marine Activities, Areas and Structures Section 9-87 "Mooring application process and waiting list procedure"  
And Section 9-87(d) "Permit renewal"  
Town Hall, Old Town Road, Block Island RI  
Wednesday, November 16, 2016  
7:00 PM

The New Shoreham Town Council will hold a public hearing at the time and place referenced above to discuss and act on proposed changes referenced above, which appear below with proposed changes underlined. Copies of Chapter 9, Section 87 in its entirety with changes indicated available on Town's website (new-shoreham.com), at Town Clerk's Office and at Island Free Library.

Proposed amendments to ordinance Sec. 9-87(b) and Sec. 9-87(d)(1)  
Sec. 9-87. - Mooring application process and waiting list procedures.

(a) No mooring shall be located in the coastal waters and harbor areas of the town until a permit has been issued for the use of such mooring by the harbor master. No mooring shall be located nor maintained unless the mooring owner has received a valid mooring permit issued by the harbor master for the mooring and the mooring conforms to the specifications and standards set forth in this article and permit.

(b) Request for a new mooring permit. To be eligible for a mooring permit, an applicant must own a vessel for which a mooring permit is being sought; provided, however, that the following shall not be considered vessels for which a mooring permit may be obtained: paddle boards; kayaks; canoes; boats under eleven feet (11') in length; and derelict vessels. Applications for new mooring permits shall be submitted to the harbors department with the appropriate fee by December 15 of each year. Mooring permit applications are available at the harbors department office. A complete and accurate mooring permit application must be provided before the harbors department can act to approve or deny such application. The harbors department shall determine if a new mooring permit can be issued only after all provisions of the harbor management plan and these ordinances are met. If an applicant does not own a vessel, the permit may be held in name only for one year.

(c) If the harbors department issues a mooring permit, the mooring owner for which the permit has been issued must locate and place the mooring at the direction of the harbor master or assistant in accordance with the harbor management plan and this ordinance.

(d) Permit renewals.  
(1) Applications for renewal of a mooring permit will be submitted to the harbors department on the application forms provided by the harbors department by December 15 of each year. To be eligible for a renewal of a mooring permit, an applicant must own a vessel for which the mooring permit

renewal is being sought; provided, however, that the following shall not be considered vessels for which a mooring permit may be obtained: paddle boards, kayaks, canoes, boats under eleven feet (11') in length; and derelict vessels. An application shall be accompanied by the appropriate fee and shall be received by December 15 in the offices of the harbors department. Failure to submit a complete and accurate application by December 15 may result in the loss of mooring permit.

(2) The harbors department shall mail the application forms by October 15 of each year to those persons who held valid mooring permits at the end of the previous calendar year, to the address listed on their last mooring permit. It shall be the responsibility of the mooring permit holder to notify the harbors department of any change in address.

(3) The harbors department shall approve or reject mooring permit applications by March 1. The Town Council will hold a public hearing on the foregoing at the time and place above, when all persons for or against may be heard and the Town Council may act on this proposal and/or amendments hereto.

Attest: Town Clerk Fiona Fitzpatrick  
Posted: September 25, 2016  
Hearing: November 16, 2016

### TOWN COUNCIL

Notice of Public Hearing of proposed Comprehensive Plan Update

Notice is hereby given of a public hearing before the Town Council of the Town of New Shoreham, at which the proposed adoption of the Town of New Shoreham Comprehensive Plan Update will be considered. The public hearing shall be held at the:

Town of New Shoreham Town Hall, Old Town Road, Block Island  
on Wednesday, November 16, 2016 at 7:00pm.  
The Proposed Comprehensive Plan is a land use plan and is an update of the Town of New Shoreham Comprehensive Plan 2002 with updates through 2009. These amendments are made in accordance with the provisions of chapter 45-22.2 of the General Laws of the State of Rhode Island. The proposed text to be considered is available for public review, and may be examined at the Island Free Library, Dodge Street, and is available on the town's website at <http://new-shoreham.com/>. Copies are available at the Town Clerk's Office at Town Hall, Old Town Road.

The plan may be altered or amended prior to the close of the public hearing without further advertising, as a result of further study or because of the views expressed at the public hearing. Individuals requesting interpreter services for the deaf and hard of hearing may call (401) 466-3200 forty-eight hours in advance of the meeting date. TTY: 711. Posted 10/27/16 FF

### LEGAL NOTICE

of hearings on an applications  
NOTICE IS HEREBY GIVEN that the Town of New Shoreham Zoning Board of Review will be in session at the Town Hall, Old Town Road on Wednesday, November 16, 2016 at 5:00 PM for a regular meeting.

All persons interested will be heard for or against the granting of the following Applications under the Zoning Ordinances:

1. Spier, John. Plat 6, Lot 9. Application for a Variance from Section 308(C) for construction of a single family dwelling.
2. Calvez, LLC. Plat 6, Lot 119. Application for a Variance from Section 113(C), 311(C), 511 and 502 to demolish an existing accessory structure and build an accessory residential structure.

### THE ZONING BOARD OF REVIEW

New Shoreham Board of Appeal  
Wednesday, November 2, 2016  
5:00 P.M. @ Town Hall, Old Town Road

AGENDA  
• The Town of New Shoreham Zoning Board of Review will be in session for a meeting on Wednesday, November 2, 2016 at 5:00 P.M. at the Town Hall, Old Town Road.

THE AGENDA IS SUBJECT TO CHANGE BY THE CHAIRMAN OR UPON MOTION OF ANY MEMBER

New Shoreham Board of Appeal, Public Hearings:

- Block Island School. Plat 10, Lot 1. Appeal by Cathy Payne of the Decision of the Planning Board dated May 24, 2016.

Approval of Minutes  
Individuals requesting interpreter services for the deaf and hard of hearing must call 466-3200 forty-eight hours in advance of the meeting date. TTY:711 JBB 10/26/16

## Public Notice

The New Shoreham Town Clerk's office will be closed for regular business on Election Day, Tuesday November 8th.

All other Town Hall offices will be open for business as usual.

## Legal & Public Notices

### PUBLIC NOTICE

All boats must be removed from the public beaches at Mosquito Beach, Andy's Way, Narragansett Beach, the Boat Basin and Bonnell Beach by November 15th 2016. Please call the Harbor's Department with any questions at 401-466-3204.

### LEGAL NOTICE

of hearings on applications for Development Plan Review.

NOTICE IS HEREBY GIVEN that the Town of New Shoreham Planning Board will be in session at the Town Hall on Wednesday, November 9, 2016 at 4:00 P.M. for its regular monthly meeting. All persons interested will be heard for or against the granting of the following application:

Philip and Alicia Hammarskjold Trust. Plat 19, Lot 51-1. PUBLIC HEARING for an Application for Development Plan Review construction of a single family dwelling, second dwelling unit, garage with accessory residential structure and an accessory residential structure

### PUBLIC NOTICE

Renewal of Outdoor Entertainment Licenses

October 26, 2016  
The Town of New Shoreham will hold a Public Hearing regarding the renewal of Outdoor Entertainment Licenses, for outdoor amplification or entertainment, pursuant to Chapter 8, Article X. of the Revised Ordinances of the Town of New Shoreham, on Monday, November 14, 2016 at 4:00 p.m. at the Town Hall, Old Town Road, Block Island.

The following named establishments have made applications with the Office of the Town Clerk:

- ¥ Rita Draper, d/b/a 1661 Inn
- ¥ Aldo's Place, Inc., d/b/a Aldo's Restaurant and Pizzeria
- ¥ ABM, Inc., d/b/a The Atlantic Inn
- ¥ Shoreham, Inc., d/b/a Ballard's Inn
- ¥ Beachhead II, LLC, d/b/a The Beachhead
- ¥ On-Island Entertainment Management, Inc., d/b/a Captain Nick's
- ¥ Champlin's Trader Vic's, Inc., d/b/a Champlin's Trader Vic's
- ¥ Ernie's Old Harbor Restaurant, Inc., d/b/a Finn's Seafood Restaurant
- ¥ Island Entertainment, Inc. d/b/a Inn at the Spring House
- ¥ Cecil's Blackrock Grille, LLC d/b/a Kimberly's
- ¥ Manisses Restaurant, Inc. d/b/a Manisses Restaurant
- ¥ KSR Enterprises, LLC, d/b/a The Narragansett Inn
- ¥ Coastal Resorts International, Inc., d/b/a National Hotel
- ¥ Humphries, Inc., d/b/a The Oar
- ¥ Old Island Pub, LLC, d/b/a Old Island Pub
- ¥ Island Pond, Inc. d/b/a Payne's Dock
- ¥ Poor People's Pub of Block Island, Inc. d/b/a Poor People's Pub
- ¥ Island Entertainment, Inc., d/b/a The Spring House Hotel
- ¥ Rosalie O'Brien Kivlehan, d/b/a The Sullivan House
- ¥ Bea's Dream, Inc. d/b/a Surf Hotel
- ¥ Rhode Island Seafood Enterprises, Inc. d/b/a Topside Café
- ¥ Kamm Group, LLC d/b/a Yellow Kittens

All persons for or against the granting of said licenses shall be heard at the time of the Public Hearing.

Attest: Millicent A. McGinnes, MMC

Deputy Town Clerk

### PUBLIC NOTICE

Application for New Outdoor Entertainment License

The Town of New Shoreham will hold a Public Hearing regarding the issuance of an Outdoor Entertainment License, for outdoor amplification or entertainment, pursuant to Chapter 8, Article IX. Section 8-254 of the Revised Ordinances of the Town of New Shoreham, on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, Block Island.

The following named establishments have made an application with the Office of the Town Clerk:

- Audino, Inc., d/b/a Brine Rum Bar & Grill, Corn Neck Road, Plat 5, Lot 10
- Merkaloon's, d/b/a McAloon's, Corn Neck Road, Plat 5, Lot 9
- Old Island Pub, Inc. d/b/a Old Island Pub. Ocean Avenue, Plat 6, Lot 3-3

All remonstrants are entitled to be heard before the granting of said licenses at the time of the Public Hearing

Attest: Millicent A. McGinnes

Deputy Town Clerk

### PUBLIC NOTICE

Beverage (Liquor) License - Expansion of Liquor Service Area

Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following applications for Beverage Licenses have been made to the New Shoreham Town Clerk as follows:

Expansion of Liquor Service Area: Class BV License  
 • Island Caterers, Inc. Stockholders: John P. & Adam Wronowski, Est. of Burke & Patricia Hewitt, Raymond & Susan Linda, Thomas Tyrseck, d/b/a Dead Eye Dick's Restaurant, Ocean Avenue, Plat 5, Lot 66  
 Before acting on the foregoing application, the Board of License Commissioners will hold a Public Hearing on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, at which time remonstrants are entitled to be heard before the granting of said licenses.

Attest: Millicent A. McGinnes, CMC

Deputy Town Clerk

### PUBLIC NOTICE

Relocation Application for Beverage (Liquor) License

Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following application for a transfer of Beverage License has been made to the New Shoreham Town Clerk as follows:

Pub, from Corn Neck Road - Plat 5, Lot 10 to Ocean Avenue - Plat 6, Lot 3-3

Before acting on the foregoing application, the Board of License Commissioners will hold a Public Hearing on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, at which time remonstrants are entitled to be heard before the granting of said licenses.

Attest: Millicent A. McGinnes

Deputy Town Clerk

New Shoreham Board of License Commissioners

### PUBLIC NOTICE

New Applications for Beverage (Liquor) License

Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following applications for Beverage Licenses have been made to the New Shoreham Town Clerk as follows:

- Class BV License
  - Audino, Inc., Stockholders: Brenna Audino and Ross Audino, d/b/a Brine Rum Bar & Grill, Corn Neck Road, Plat 5, Lot 10
  - Class C License
  - Block Island Accommodations, LLC, Member: Cariona Corcoran, d/b/a Bellevue, High Street, Plat 7, Lot 73-2
- Before acting on the foregoing applications, the Board of License Commissioners will hold a Public Hearing on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, at which time remonstrants are entitled to be heard before the granting of said licenses.

Attest: Millicent A. McGinnes, CMC

Deputy Town Clerk

New Shoreham Board of License Commissioners

### PUBLIC NOTICE

Applications for Renewal of Beverage (Liquor) License

October 26, 2016  
Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following applications for Beverage License Renewals have been made to the New Shoreham Town Clerk as follows:

- Class A Beverage:
- Maclac Enterprises, Inc., Stockholders: Mark Helterline, & Mary Jane Balsler, d/b/a Block Island Grocery, Ocean Avenue
- Redbird Liquor Store, Inc., Stockholder: Caroline Todd, d/b/a Redbird Liquor Store, Dodge Street
- Class BM Beverage:
- Sachem Holdings, Inc. Stockholder: Marc Scortino, d/b/a Mohegan Café, Water Street
- Class BVL Beverage:
- B.A.D.C.G. Inc. Stockholder: Bethany Campbell Coviello, d/b/a Bethany's Airport Diner, Center Road
- Pizza Plus of Block Island, Inc. Stockholder: James R. McElderry, d/b/a Papa's Pizzeria, Corn Neck Road
- Rhode Island Seafood Enterprises, Inc., Stockholder: Matthew King, d/b/a Topside Café, Ocean Avenue
- Class BV Beverage:
- Rita Draper, d/b/a 1661 Inn, Spring Street
- Aldo's Place, Inc. Stockholders: Stephen E. Papa, Anna R. Papa, Christina L. Papa & Stephen N. Papa d/b/a Aldo's Restaurant and Pizza, Weldon's Way
- A.B.M., Inc. Stockholder: Bradford Marthens, d/b/a The Atlantic Inn, High Street
- Shoreham, Inc. Stockholder: Marion Filippi, d/b/a Ballard's Inn, Water Street
- Beachhead II, LLC, Members: Rebecca Pappas Clark & Timothy Clark d/b/a The Beachhead, Corn Neck Road
- On-Island Entertainment Management, Inc. Stockholder: Marc Scortino, d/b/a Captain Nick's, Ocean Avenue
- Champlin's Trader Vic's, Inc. Stockholders: Joseph Grillo and Susan Grillo, d/b/a Champlin's Trader Vic's, Champlin's Marina, West Side Road
- Club Soda, Inc. Stockholders: Maxon G. Balmforth, Jr. & Glenn C. McKiernan, d/b/a Club Soda, Connecticut Avenue

Island Caterers, Inc. Stockholders: John P. & Adam Wronowski, Est. of Burke & Patricia Hewitt, Raymond & Susan Linda, Thomas Tyrseck, d/b/a Dead Eye Dick's Restaurant, Ocean Avenue

Eli's Restaurant, Inc. Stockholders: Bradford G. Marthens & Edward Y. Moon, d/b/a Eli's Restaurant, Chapel Street

Ernie's Old Harbor Restaurant, Inc. Stockholders: Frederick & Deborah Howarth, & F. Jason Howarth, d/b/a Finn's Seafood Restaurant, Water Street

Royal Hospitality Group, Inc. Stockholder: Marc Scortino d/b/a Harbor Grill, Water Street

Island Pond, Inc., Stockholders: Clif Payne & Edward Sands Payne, Ocean Avenue

Cecil's Black Rock Grille, LLC; Members: Kimberly & Norman Ward d/b/a Kimberly's, Ocean Avenue

Merkaloons, LLC, Member: Kathleen McAloon d/b/a McAloon's, Corn Neck Road

Manisses Restaurant, Inc., Stockholders: Steven Filippi, Blake Filippi & Paul Filippi d/b/a Hotel Manisses, Spring Street

KSR Enterprises, LLC; Members: Rita Draper & Steve Draper, d/b/a Narragansett Inn, Ocean Avenue

Coastal Resorts International, Inc. Stockholders: Chris Sereno & Jackie Sereno, d/b/a National Hotel, Water Street

Humphries, Inc. Stockholders: Justin Abrams Estate, Steven & Rita Draper, d/b/a The Oar, West Side Road

Deputy Town Clerk  
New Shoreham Board of License Commissioners

### PUBLIC NOTICE

TOWN COUNCIL  
Notice of Public Hearing of proposed Comprehensive Plan Update

Notice is hereby given of a public hearing before the Town Council of the Town of New Shoreham, at which the proposed adoption of the Town of New Shoreham Comprehensive Plan Update will be considered. The public hearing shall be held at the:

Town of New Shoreham Town Hall, Old Town Road, Block Island

on Wednesday, November 16, 2016 at 7:00pm.

The Proposed Comprehensive Plan is a land use plan and is an update of the Town of New Shoreham Comprehensive Plan 2002 with updates through 2009. These amendments are made in accordance with the provisions of chapter 45-22.2 of the General Laws of the State of Rhode Island.

The proposed text to be considered is available for public review, and may be examined at the Island Free Library, Dodge Street, and is available on the town's website at <http://new-shoreham.com/>. Copies are available at the Town Clerk's Office at Town Hall, Old Town Road.

The plan may be altered or amended prior to the close of the public hearing without further advertising, as a result of further study or because of the views expressed at the public hearing.

Individuals requesting interpreter services for the deaf and hard of hearing may call (401) 466-3200 forty-eight hours in advance of the meeting date. TTY: 711. Posted 10/27/16

FF

### LEGAL NOTICE

of hearings on applications

NOTICE IS HEREBY GIVEN that the Town of New Shoreham Zoning Board of Review will be in session at the Town Hall, Old Town Road on Wednesday, November 16, 2016 at 5:00 PM for a regular meeting.

All persons interested will be heard for or against the granting of the following Applications under the Zoning Ordinances:

1. Spier, John. Plat 6, Lot 9. Application for a Variance from Section 308(C) for construction of a single family dwelling.
2. Calvez, LLC. Plat 6, Lot 119. Application for a Variance from Section 113(C), 311(C), 511 and 502 to demolish an existing accessory structure and build an accessory residential structure.

### PUBLIC NOTICE

Notice of Public Hearing  
Proposed Amendment to New Shoreham General Ordinances

And the New Shoreham Harbor Management Plan Chapter 9 Marine Activities, Areas and Structures Section 9-87 "Mooring application process and waiting list procedure"

And Section 9-87(d) "Permit renewal"  
Town Hall, Old Town Road, Block Island RI  
Wednesday, November 16, 2016  
7:00 PM

The New Shoreham Town Council will hold a public hearing at the time and place referenced above to discuss and act on proposed changes referenced above, which appear below with proposed changes underlined. Copies of Chapter 9, Section 87 in its entirety with changes indicated available on Town's website ([new-shoreham.com](http://new-shoreham.com)), at Town Clerk's Office and at Island Free Library.

Proposed amendments to ordinance Sec. 9-87(b) and Sec. 9-87(d)(1).

Sec. 9-87. - Mooring application process and waiting list procedures.

(a) No mooring shall be located in the coastal waters and harbor areas of the town until a permit has been issued for the use of such mooring by the harbor master. No mooring shall be located nor maintained unless the mooring owner has received a valid mooring permit issued by the harbor master for the mooring and the mooring conforms to the specifications and standards set forth in this article and permit.

(b) Request for a new mooring permit. To be eligible for a mooring permit, an applicant must own a vessel for which a mooring permit is being sought; provided, however, that the following shall not be considered vessels for which a mooring permit may be obtained: paddle boards; kayaks; canoes; boats under eleven feet (11') in length; and derelict vessels. Applications for new mooring permits shall be submitted to the harbors department with the appropriate fee by December 15 of each year. Mooring permit applications are available at the harbors department office. A complete and accurate mooring permit application must be provided before the harbors department can act to approve or deny such application. The harbors department shall determine if a new mooring permit can be issued only after all provisions of the harbor management plan and these ordinances are met. If an applicant does not own a vessel, the permit may be held in name only for one year.

(c) If the harbors department issues a mooring permit, the mooring owner for which the permit has been issued must locate and place the mooring at the direction of the harbor master or assistant in accordance with the harbor management plan and this ordinance.

(d) Permit renewals.

(1) Applications for renewal of a mooring permit will be submitted to the harbors department on the application forms provided by the harbors department by December 15 of each year. To be eligible for a renewal of a mooring permit, an applicant must own a vessel for which the mooring permit renewal is being sought; provided, however, that the following shall not be considered vessels for which a mooring permit may be obtained: paddle boards, kayaks, canoes, boats under eleven feet (11') in length; and derelict vessels. An application shall be accompanied by the appropriate fee and shall be received by December 15 in the offices of the harbors department. Failure to submit a complete and accurate application by December 15 may result in the loss of mooring permit.

(2) The harbors department shall mail the application

year, to the address listed on their last mooring permit shall be the responsibility of the mooring permit holder to notify the harbors department of any change in address.

(3) The harbors department shall approve or reject mooring permit applications by March 1.

The Town Council will hold a public hearing on the going at the time and place above, when all persons against may be heard and the Town Council may act proposal and/or amendments hereto.

Attest: Town Clerk Fiona Fitzpatrick

Posted: September 25, 2016  
Hearing: November 16, 2016

### LEGAL NOTICE

MORTGAGEE'S SALE  
764 LAKESIDE DR BLOCK ISLAND (New Shoreham)

The premises described in the mortgage will be sold to all encumbrances and prior liens on November 29 at 3:00 p.m. on the premises, by virtue of the power sale contained in a mortgage by David H. Yinger Jr. March 16, 2006 and recorded in the New Shoreham Evidence Records in Book 356, Page 95, the condition said mortgage having been broken.

\$15,000.00 in cash, certified or bank check is required. Other terms will be announced at the sale.

HARMON LAW OFFICES, P.C.  
Attorney for the Holder of the Mortgage  
150 California Street  
Newton, MA 02458  
(617) 558-0500  
201604-0147 - PRP

### PUBLIC NOTICE

Block Island Land Trust  
Thursday, November 10, 2016, 4:00 p.m.

Town Hall, Old Town Road, Block Island, RI  
AGENDA  
4:00 PM - Open Session:

1. Public Input
2. Stewardship
  - a. Draft Stewardship Bids for 2017
  - b. Solviken Update
  - c. Ball-O'Brien
3. Harbormaster Facilities
4. Treasurer's Report: October 2016
5. Secretary's Report
6. Approval of Minutes: Open & Closed October 6
7. Set 2017 Meeting Schedule
8. 4:30 PM - Closed Session: Acquisitions, Litigation
9. Motion(s) as a result of closed session discussion
10. Adjournment

Next Meeting: Thursday, December 8, 2016  
\*This item will be held in Closed Session pursuant to 42-46-5(5) (acquisitions: confidential at this time), a RIGL 42-46-5(2) (litigation: updates for Champlin's Expansion-RI Supreme Court Case #2009-113,114, M.P., Renz, and TNS Zoning Board/Stockman-Wal County Superior Court Case #WC2016-250).

Those requesting interpreter services for the hearing impaired must call (401) 466-3200  
48 hours prior to meeting date. TTY: 711.  
Posted: November 2, 2016

### PUBLIC NOTICE

General Election  
Tuesday, November 8, 2016

Polls will be open at Town Hall, 16 Old Town Road Block Island from 9:00 AM to 8:00 PM. Cast your vote for President and Vice President of the United States Representative in United States Congress, Rhode Island District 2; Senator in Rhode Island General Assembly District; Representative in Rhode Island General Assembly 36th District; First Warden; Second Warden; Town Clerk; Town Sergeant; Moderator; Assistant Moderator; Tax Assessor; School Committee; Block Island Land Trust Trustees; Block Island Housing Board Trustees and statewide referendum questions. If you have questions call the Town Clerk's office at 466-3200.

AGENDA  
• Philip and Alicia Hammarskjold Trust. Plat 19 51-1. Public Hearing for Development Plan Review a Special Use Permit under Sections 113(b)(4), 306(E), 406, and 514 for construction of a single family second dwelling unit, garage with accessory residential structure and an accessory residential structure.

• Philip and Alicia Hammarskjold Trust. Plat 19 51-1. Advisory to the Zoning Board of Review / Application for a Special Use Permit under Sections 113(b)(4), 306(E), 406, and 514 for construction of a single family second dwelling unit, garage with accessory residential structure and an accessory residential structure.

• JBTG, LLC. Plat 9, Lot 28-1. Request for a new mooring permit. Request to install vinyl roll downs at Aldo's Restaurant on the minor change to the Planned Development.

• Block Island Housing Board. Plat 14, Lot 55. Application for Master Plan Stage of a Major Subdivision Act on waiver requests and discuss setting a public hearing date.

• Set meeting dates to review Capital Budget Report with staff.

• Report on LCAS

• Report on meeting by the USDA

• Approve Annual Meeting schedule for 2017

• Comprehensive Plan update

• Approval of Minutes

Individuals requesting interpreter services for the hard of hearing must call 466-3200 forty-eight hours

# Legal & Public Notices

## PUBLIC NOTICE

### Renewal of Outdoor Entertainment Licenses

October 26, 2016  
The Town of New Shoreham will hold a Public Hearing regarding the renewal of Outdoor Entertainment Licenses, for outdoor amplification or entertainment, pursuant to Chapter 8, Article X. of the Revised Ordinances of the Town of New Shoreham, on Monday, November 14, 2016 at 4:00 p.m. at the Town Hall, Old Town Road, Block Island.

The following named establishments have made applications with the Office of the Town Clerk:

- ¥ Rita Draper, d/b/a 1661 Inn
  - ¥ Aldo's Place, Inc., d/b/a Aldo's Restaurant and Pizzeria
  - ¥ ABM, Inc., d/b/a The Atlantic Inn
  - ¥ Shoreham, Inc., d/b/a Ballard's Inn
  - ¥ Beachhead II, LLC, d/b/a The Beachhead
  - ¥ On-Island Entertainment Management, Inc., d/b/a Captain Nick's
  - ¥ Champlin's Trader Vic's, Inc., d/b/a Champlin's Trader Vic's
  - ¥ Ernie's Old Harbor Restaurant, Inc., d/b/a Finn's Seafood Restaurant
  - ¥ Island Entertainment, Inc. d/b/a Inn at the Spring House
  - ¥ Cecil's Blackrock Grille, LLC d/b/a Kimberly's
  - ¥ Manisses Restaurant, Inc. d/b/a Manisses Restaurant
  - ¥ KSR Enterprises, LLC, d/b/a The Narragansett Inn
  - ¥ Coastal Resorts International, Inc., d/b/a National Hotel
  - ¥ Humphries, Inc., d/b/a The Oar
  - ¥ Old Island Pub, LLC, d/b/a Old Island Pub
  - ¥ Island Pond, Inc. d/b/a Payne's Dock
  - ¥ Poor People's Pub of Block Island, Inc. d/b/a Poor People's Pub
  - ¥ Island Entertainment, Inc., d/b/a The Spring House Hotel
  - ¥ Rosalie O'Brien Kivlehan, d/b/a The Sullivan House
  - ¥ Bea's Dream, Inc. d/b/a Surf Hotel
  - ¥ Rhode Island Seafood Enterprises, Inc. d/b/a Topside Café
  - ¥ Kamm Group, LLC d/b/a Yellow Kittens
- All persons for or against the granting of said licenses shall be heard at the time of the Public Hearing.  
Attest: Millicent A. McGinnes, MMC  
Deputy Town Clerk

## PUBLIC NOTICE

### Application for New Outdoor Entertainment License

The Town of New Shoreham will hold a Public Hearing regarding the issuance of an Outdoor Entertainment License, for outdoor amplification or entertainment, pursuant to Chapter 8, Article IX. Section 8-254 of the Revised Ordinances of the Town of New Shoreham, on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, Block Island.

The following named establishments have made an application with the Office of the Town Clerk:

- Audino, Inc., d/b/a Brine Rum Bar & Grill, Corn Neck Road, Plat 5, Lot 10
- Merkaloons's, d/b/a McAloon's, Corn Neck Road, Plat 5, Lot 9
- Old Island Pub, Inc. d/b/a Old Island Pub. Ocean Avenue, Plat 6, Lot 3-3

All remonstrants are entitled to be heard before the granting of said licenses at the time of the Public Hearing  
Attest: Millicent A. McGinnes  
Deputy Town Clerk

## PUBLIC NOTICE

### Beverage (Liquor) License - Expansion of Liquor Service Area

Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following applications for Beverage Licenses have been made to the New Shoreham Town Clerk as follows:

Expansion of Liquor Service Area: Class BV License  
• Island Caterers, Inc. Stockholders: John P. & Adam Wronowski, Est. of Burke & Patricia Hewitt, Raymond & Susan Linda, Thomas Tyrseck, d/b/a Dead Eye Dick's Restaurant, Ocean Avenue, Plat 5, Lot 66

Before acting on the foregoing application, the Board of License Commissioners will hold a Public Hearing on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, at which time remonstrants are entitled to be heard before the granting of said licenses.

Attest: Millicent A. McGinnes, MMC  
Deputy Town Clerk  
New Shoreham Board of License Commissioners

## PUBLIC NOTICE

### Relocation Application for Beverage (Liquor) License

Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following application for a transfer of Beverage License has been made to the New Shoreham Town Clerk as follows:

Relocation of Class BV Liquor License  
• Relocation of Old Island Pub, LLC, d/b/a Old Island Pub, from Corn Neck Road - Plat 5, Lot 10 to Ocean Avenue - Plat 6, Lot 3-3

Before acting on the foregoing application, the Board of License Commissioners will hold a Public Hearing on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, at which time remonstrants are entitled to be heard before the granting of said licenses.

Attest: Millicent A. McGinnes  
Deputy Town Clerk  
New Shoreham Board of License Commissioners

## PUBLIC NOTICE

### New Applications for Beverage (Liquor) License

Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following applications for Beverage Licenses have been made to the New Shoreham Town Clerk as follows:

Class BV License  
• Audino, Inc., Stockholders: Brenna Audino and Ross Audino, d/b/a Brine Rum Bar & Grill, Corn Neck Road, Plat 5, Lot 10

Class C License  
• Block Island Accommodations, LLC, Member: Cariona Corcoran, d/b/a Bellevue, High Street, Plat 7, Lot 73-2

Before acting on the foregoing applications, the Board of License Commissioners will hold a Public Hearing on Monday, November 14, 2016 at 4:00 p.m. at Town Hall, Old Town Road, at which time remonstrants are entitled to be heard before the granting of said licenses.

Attest: Millicent A. McGinnes, MMC  
Deputy Town Clerk  
New Shoreham Board of License Commissioners

## PUBLIC NOTICE

### Applications for Renewal of Beverage (Liquor) License

October 26, 2016  
Notice is hereby given, pursuant to Chapter 2013 of the Public Laws of Rhode Island, approved in April 1956 as amended, that the following applications for Beverage License Renewals have been made to the New Shoreham Town Clerk as follows:

Class A Beverage:  
Maclac Enterprises, Inc., Stockholders: Mark Helteline, & Mary Jane Balsler, d/b/a Block Island Grocery, Ocean Avenue

Redbird Liquor Store, Inc., Stockholder: Caroline Todd, d/b/a Redbird Liquor Store, Dodge Street

Class BM Beverage:  
Sachem Holdings, Inc. Stockholder: Marc Scortino, d/b/a Mohegan Café, Water Street

Class BVL Beverage:  
B.A.D.C.G, Inc. Stockholder: Bethany Campbell Coviello, d/b/a Bethany's Airport Diner, Center Road

Pizza Plus of Block Island, Inc. Stockholder: James R. McElderry, d/b/a Papa's Pizzeria, Corn Neck Road

Rhode Island Seafood Enterprises, Inc., Stockholder: Matthew King, d/b/a Topside Café, Ocean Avenue

Class BV Beverage:  
Rita Draper, d/b/a 1661 Inn, Spring Street

Aldo's Place, Inc. Stockholders: Stephen E. Papa, Anna R. Papa, Christina L. Papa & Stephen N. Papa d/b/a Aldo's Restaurant and Pizza, Weldon's Way

A.B.M., Inc. Stockholder: Bradford Marthens, d/b/a The Atlantic Inn, High Street

Shoreham, Inc. Stockholder: Marion Filippi, d/b/a Ballard's Inn, Water Street

Beachhead II, LLC, Members: Rebecca Pappas Clark & Timothy Clark d/b/a The Beachhead, Corn Neck Road

On-Island Entertainment Management, Inc. Stockholder: Marc Scortino, d/b/a Captain Nick's, Ocean Avenue

Champlin's Trader Vic's, Inc. Stockholders: Joseph Grillo and Susan Grillo, d/b/a Champlin's Trader Vic's, Champlin's Marina, West Side Road

Club Soda, Inc. Stockholders: Maxon G. Balmforth, Jr. & Glenn C. McKiernan, d/b/a Club Soda, Connecticut Avenue

Island Caterers, Inc. Stockholders: John P. & Adam Wronowski, Est. of Burke & Patricia Hewitt, Raymond & Susan Linda, Thomas Tyrseck, d/b/a Dead Eye Dick's Restaurant, Ocean Avenue

Eli's Restaurant, Inc. Stockholders: Bradford G. Marthens & Edward Y. Moon, d/b/a Eli's Restaurant, Chapel Street

Ernie's Old Harbor Restaurant, Inc. Stockholders: Frederick & Deborah Howarth, & F. Jason Howarth, d/b/a Finn's Seafood Restaurant, Water Street

Royal Hospitality Group, Inc. Stockholder: Marc Scortino d/b/a Harbor Grill, Water Street

Island Pond, Inc., Stockholders: Clif Payne & Edward Sands Payne, Ocean Avenue

Cecil's Black Rock Grille, LLC; Members: Kimberly & Norman Ward d/b/a Kimberly's, Ocean Avenue

Merkaloons, LLC, Member: Kathleen McAloon d/b/a McAloon's, Corn Neck Road

Manisses Restaurant, Inc., Stockholders: Steven Filippi, Blake Filippi & Paul Filippi d/b/a Hotel Manisses, Spring Street

KSR Enterprises, LLC; Members: Rita Draper & Steve Draper, d/b/a Narragansett Inn, Ocean Avenue

Coastal Resorts International, Inc. Stockholders: Chris Sereno & Jackie Sereno, d/b/a National Hotel, Water Street

Humphries, Inc. Stockholders: Justin Abrams Estate, Steven & Rita Draper, d/b/a The Oar, West Side Road

be heard before the granting of said licenses.

Attest: Millicent A. McGinnes, MMC  
Deputy Town Clerk  
New Shoreham Board of License Commissioners

## PUBLIC NOTICE

### Notice of Public Hearing

Proposed Amendment to New Shoreham General Ordinances

And the New Shoreham Harbor Management Plan Chapter 9 Marine Activities, Areas and Structures Section 9-87 "Mooring application process and waiting list procedure"

And Section 9-87(d) "Permit renewal"  
Town Hall, Old Town Road, Block Island RI  
Wednesday, November 16, 2016  
7:00 PM

The New Shoreham Town Council will hold a public hearing at the time and place referenced above to discuss and act on proposed changes referenced above, which appear below with proposed changes underlined. Copies of Chapter 9, Section 87 in its entirety with changes indicated available on Town's website (new-shoreham.com), at Town Clerk's Office and at Island Free Library.

Proposed amendments to ordinance Sec. 9-87(b) and Sec. 9-87(d)(1)  
Sec. 9-87. - Mooring application process and waiting list procedures.

(a) No mooring shall be located in the coastal waters and harbor areas of the town until a permit has been issued for the use of such mooring by the harbormaster. No mooring shall be located nor maintained unless the mooring owner has received a valid mooring permit issued by the harbormaster for the mooring and the mooring conforms to the specifications and standards set forth in this article and permit.

(b) Request for a new mooring permit. To be eligible for a mooring permit, an applicant must own a vessel for which a mooring permit is being sought; provided, however, that the following shall not be considered vessels for which a mooring permit may be obtained: paddle boards; kayaks; canoes; boats under eleven feet (11') in length; and derelict vessels.

Applications for new mooring permits shall be submitted to the harbors department with the appropriate fee by December 15 of each year. Mooring permit applications are available at the harbors department office. A complete and accurate mooring permit application must be provided before the harbors department can act to approve or deny such application. The harbors department shall determine if a new mooring permit can be issued only after all provisions of the harbor management plan and these ordinances are met. If an applicant does not own a vessel, the permit may be held in name only for one year.

(c) If the harbors department issues a mooring permit, the mooring owner for which the permit has been issued must locate and place the mooring at the direction of the harbormaster or assistant in accordance with the harbor management plan and this ordinance.

(d) Permit renewals.

(1) Applications for renewal of a mooring permit will be submitted to the harbors department on the application forms provided by the harbors department by December 15 of each year. To be eligible for a renewal of a mooring permit, an applicant must own a vessel for which the mooring permit renewal is being sought; provided, however, that the following shall not be considered vessels for which a mooring permit may be obtained: paddle boards; kayaks; canoes; boats under eleven feet (11') in length; and derelict vessels.

An application shall be accompanied by the appropriate fee and shall be received by December 15 in the offices of the harbors department. Failure to submit a complete and accurate application by December 15 may result in the loss of mooring permit.

(2) The harbors department shall mail the application forms by October 15 of each year to those persons who held valid mooring permits at the end of the previous calendar year, to the address listed on their last mooring permit. It shall be the responsibility of the mooring permit holder to notify the harbors department of any change in address.

(3) The harbors department shall approve or reject mooring permit applications by March 1.

The Town Council will hold a public hearing on the foregoing at the time and place above, when all persons for or against may be heard and the Town Council may act on this proposal and/or amendments hereto.

Attest: Town Clerk Fiona Fitzpatrick  
Posted: September 25, 2016  
Hearing: November 16, 2016

## PUBLIC NOTICE

### TOWN COUNCIL

#### NOTICE OF PUBLIC HEARING

Notice of Public Hearing of proposed Comprehensive Plan Update

Notice is hereby given of a public hearing before the Town Council of the Town of New Shoreham, at which the proposed adoption of the Town of New Shoreham Comprehensive Plan Update will be considered. The public hearing shall be held at the:

Town of New Shoreham Town Hall, Old Town Road, Block Island  
on Wednesday, November 16, 2016 at 7:00pm.

The Proposed Comprehensive Plan is a land use plan and is an update of the Town of New Shoreham Comprehensive Plan 2002 with updates through 2009. These amendments are made in accordance with the provisions of chapter 45-22.2 of the General Laws of the State of Rhode Island.

The proposed text to be considered is available for public review, and may be examined at the Island Free Library, Dodge Street, and is available on the town's website at

http://new-shoreham.com/. Copies are available at the Town Clerk's Office at Town Hall, Old Town Road. The plan may be altered or amended prior to the close of the public hearing without further advertising, as a result of further study or because of the views expressed at the public hearing.

Individuals requesting interpreter services for the deaf and hard of hearing may call (401) 466-3200 forty-eight hours in advance of the meeting date. TTY: 711. Posted 10/27/16 FF

## LEGAL NOTICE

### of hearings on an applications

NOTICE IS HEREBY GIVEN that the Town of New Shoreham Zoning Board of Review will be in session at the Town Hall, Old Town Road on Wednesday, November 16, 2016 at 5:00 PM for a regular meeting. All persons interested will be heard for or against the granting of the following Applications under the Zoning Ordinances:

1. Spier, John. Plat 6, Lot 9. Application for a Variance from Section 308(C) for construction of a single family dwelling.
2. Calvez, LLC. Plat 6, Lot 119. Application for a Variance from Section 113(C), 311(C), 511 and 502 to demolish an existing accessory structure and build an accessory residential structure.

## LEGAL NOTICE

### MORTGAGEE'S SALE

764 LAKESIDE DR BLOCK ISLAND (New Shoreham), RI

The premises described in the mortgage will be sold subject to all encumbrances and prior liens on November 29, 2016 at 3:00 p.m. on the premises, by virtue of the power of sale contained in a mortgage by David H. Yinger Jr. dated March 16, 2006 and recorded in the New Shoreham Land Evidence Records in Book 356, Page 95, the conditions of said mortgage having been broken. \$15,000.00 in cash, certified or bank check is required to bid. Other terms will be announced at the sale.

HARMON LAW OFFICES, P.C.

Attorney for the Holder of the Mortgage  
150 California Street  
Newton, MA 02458  
(617) 558-0500  
201604-0147 - PRP

## PUBLIC NOTICE

### THE ZONING BOARD OF REVIEW

Wednesday, November 16, 2016  
5:00 P.M. @ Town Hall, Old Town Road  
AGENDA

The Town of New Shoreham Zoning Board of Review will be in session for a meeting on Wednesday, November 16, 2016 at 5:00 P.M. at the Town Hall, Old Town Road. THE AGENDA IS SUBJECT TO CHANGE BY THE CHAIRMAN OR UPON MOTION OF ANY MEMBER Applications:

- Island Enterprises, Inc. Plat 8, Lot 84-6. Application for a Special Use Permit under Sections 113(B)(4), 309(E), 401 and 703 regarding the Barn restaurant. Hearings,
- Island Enterprises, Inc. Plat 8, Lot 84-6. Appeal of correspondence from the Building Official dated June 6, 2016.

- Spier, John. Plat 6, Lot 9. Application for a Variance from Section 308(C) for construction of a single family dwelling.

- Calvez, LLC. Plat 6, Lot 119. Application for a Variance from Section 113(C), 311(C), 511 and 502 to demolish an existing accessory structure and build an accessory residential structure.

- Battyville, LLC. Plat 4, Lot 32-3. Application for a conditional for a Variance under Sections 113 (C) (1) and 306 (C) regarding an accessory building.

- Sargent, Michael and Nancy. Plat 20, Lot 8-3. Application for a Variance from Section 306(C) for construction of a garage.

- Philip and Alicia Hammarskjold Trust. Plat 19, Lot 51-1. Application for a Special Use Permit under Sections 113(b)(4), 306(E), 406, and 514 for construction of a single family dwelling, second dwelling unit, garage with accessory residential structure and an accessory residential structure.

- Gordon, Michael and Carol. Plat 13, Lot 24. Application for a Variance from Sections 113(E) and 306(C) for construction of a single family dwelling.

Approval of Minutes  
THE ZONING BOARD'S POLICY IS TO ADJOURN AT 8:30 P.M.

Individuals requesting interpreter services for the deaf and hard of hearing must call 466-3200 forty-eight hours in advance of the meeting date. TTY:711 JBB 11/09/16

## PUBLIC NOTICE

### THE ZONING BOARD OF REVIEW

New Shoreham Board of Appeal  
Wednesday, November 16, 2016  
5:00 P.M. @ Town Hall, Old Town Road  
AGENDA

The Town of New Shoreham Zoning Board of Review will be in session for a meeting on Wednesday, November 16, 2016 at 5:00 P.M. at the Town Hall, Old Town Road. THE AGENDA IS SUBJECT TO CHANGE BY THE CHAIRMAN OR UPON MOTION OF ANY MEMBER Decisions:

- Block Island School. Plat 10, Lot 1. Appeal by Cathy Payne of the Decision of the Planning Board dated May 24, 2016.

Individuals requesting interpreter services for the deaf and hard of hearing must call 466-3200 forty-eight hours in advance of the meeting date. TTY:711 JBB 11/9/16

**New Shoreham Town Council Work Session**  
**Town Hall, Old Town Road**  
**Wednesday, November 16, 2016**  
**7:00 p.m.**

**Present:** First Warden Kenneth C. Lacoste, Second Warden F. Norris Pike, Town Councilors Mark Emmanuelle, W. Terrence Mooney, and Christopher Warfel. Also present were Town Manager James Lathrop, Finance Director Amy Land, Town Solicitor Katherine Merolla and for the recording of minutes, Deputy Town Clerk Millicent McGinnes.

First Warden Lacoste called the meeting to order at 7:03 p.m.

**Wardens Report**

First Warden Lacoste reported the following:

- New Town Manager James Lathrop is participating in his first meeting tonight.
- Jersey barriers have been ordered to use on the Old Town Road bridge to limit traffic to one lane. Repairs should be scheduled for the spring.
- A contribution of \$35,000 from Block Island Express was received compensating for their summer intrastate passenger traffic.
- Hunting season is in full swing. Please be cautious of hunters and additionally of deer on the roads when night driving.

Second Warden Pike reported that Engineer Jim Geremia is reluctant to do an emergency repair on the Old Town Road bridge. He believes it will be necessary to permit it for a full repair.

**Public Comment**

There was no public comment expressed.

- 1. Public Hearing: Proposed Amendment to New Shoreham General Ordinances Harbors Ordinance And the New Shoreham Harbor Management Plan Chapter 9 Marine Activities, Areas and Structures, Section 9-87 “Mooring application process and waiting list procedure” and Section 9-87(d) “Permit renewal” All persons for or against may be heard and the Town Council may act on this proposal and/or amendments hereto.**

First Warden Lacoste explained that the proposed changes to the Harbors Ordinance and the Harbor Management Plan would prohibit applicants from using paddleboards, canoes, kayaks, boats under eleven feet (11') in length; and derelict vessels for eligibility regarding their mooring permit.

Harbors Committee member Gary Pollard and Harbormaster Steve Land explained that they were looking for methods to turn moorings over that are barely used, in order to give movement to the waiting list. Steve Land noted that he believed the change would affect 17 mooring holders. He stated that paddleboards, canoes, kayaks, and little inflatables could not even be boarded to affix the mooring sticker. He felt eliminating those boats would make a more efficient use of the moorings. Additionally, Gary Pollard noted that the canoes and kayaks can be launched from the shoreline or outhauled. Discussion ensued.

Mr. Warfel stated that he felt canoes and kayaks should not be excluded, as those boats may provide the only opportunity for a family to experience the water. Mr. Mooney stated that he was aware of ocean going kayaks that could not be easily launched or transported.

Mr. Pike stated that he felt moorings should be used for larger boats.

Town Manager Lathrop suggested striking the words “canoes, kayaks” from the proposed language as a compromise.

Mr. Pike moved to close the public hearing. Mr. Emmanuelle seconded the motion and it carried.

Ayes: 4 (Lacoste, Emmanuelle, Mooney, Pike)      Nays: 1 (Warfel)

Mr. Pike moved to adopt the proposed amendment to New Shoreham General Ordinances - Harbors Ordinance and the New Shoreham Harbor Management Plan, Chapter 9 Marine Activities, Areas and Structures, Section 9-87 “Mooring application process and waiting list procedure” and Section 9-87(d) “Permit renewal” as advertised. The motion was seconded by Mr. Emmanuelle and did not carry.

Ayes: 1 (Pike)      Nays: 4 (Lacoste, Emmanuelle, Mooney, Warfel)

Mr. Warfel moved to adopt the proposed amendment to New Shoreham General Ordinances - Harbors Ordinance and the New Shoreham Harbor Management Plan, Chapter 9 Marine Activities, Areas and Structures, Section 9-87 “Mooring application process and waiting list procedure” with the following change: to delete the words “kayaks, canoes” from the proposed language. The motion was seconded by Mr. Emmanuelle and carried.

Ayes: 4 (Lacoste, Emmanuelle, Mooney, Warfel)      Nays: 1 (Pike)

**2. Public Hearing: Adoption of New Shoreham Comprehensive Plan. The Proposed Comprehensive Plan is a land use plan and is an update of the Town of New Shoreham Comprehensive Plan 2002 with updates through 2009. These amendments are made in accordance with the provisions of chapter 45-22.2 of the General Laws of the State of Rhode Island. The plan may be altered or amended prior to the close of the public hearing without further advertising, as a result of further study or because of the views expressed at the public hearing.**

Planner Alison Ring reviewed the proposed new Comprehensive Plan, highlighting the following items:

- The document sets a vision over a twenty year horizon and is updated every ten years.
- This document is a major rewrite and includes some new themes and updated data.
- It includes many items focusing on responsible stewardship, growth compatible with the landscape and the importance of maintaining a year round community.
- The Planning Board worked several years on the document; gathered information from the around the community; held several public input sessions and public hearings; and approved the plan in October.

From the audience, Paul Filippi questioned the uses noted, or not noted, regarding Old Harbor. Planner Alison Ring and Planning Board members Sven Risom, Mary Anderson, Socha Cohen and Margie Comings answered questions and clarified issues.

Mr. Emmanuelle stated that health and safety should be included on page one in the introduction. He additionally suggested expanding on the following areas: lack of road safety, deer eradication, affordable year-round housing, bike lanes and composting.

Mr. Warfel stated that more vigorous language should be used, along with specific action and follow through for widening roads, composting, senior housing, farmlands, run-off mitigation, aquaculture, moped safety and BIPCO.

Discussion ensued.

Mr. Pike thanked the Planning Board for their thorough, committed work in generating the plan.

Mr. Lacoste moved to close the public hearing. The motion was seconded by Mr. Pike. The motion and second were withdrawn and changes to the plan were discussed.

Mr. Pike moved to close the public hearing, direct Planner Ring to make the following changes:

- Include a health and safety statement in the “1. Introduction,” “Overall Vision” paragraph.
- On page 6-17 in the “Implementing Actions” table the housing “Timeframe” move from “Medium-term” to “Short-term.”
- On page 9-11 clean up language regarding interconnectivity of BIPCO.
- Flush out composting section to include Town sponsored programs using indigenous resources.

and that the New Shoreham Comprehensive Plan is hereby amended and adopted as Appendix F of the Revised Ordinances of the Town of New Shoreham, Rhode Island with those changes incorporated. The motion was seconded by Mr. Emmanuelle and carried.

5 Ayes (Lacoste, Pike, Emmanuelle, Mooney, Warfel)      0 Nays

**3. Set Public Hearing Date for Amendment to New Shoreham General Ordinances Chapter 19, Article III Water District, Section 19-241 Plat and Lot Listing, to add property to the Water District at Plat 10 Lots 41, 42 and 43**

Mr. Lacoste moved to set a public hearing date of December 21, 2016 for an amendment to the New Shoreham General Ordinances Chapter 19, Article III Water District, Section 19-241 Plat and Lot Listing to add property to the Water District at Plat 10, Lots 41, 42 and 43. The motion was seconded by Mr. Pike and carried.

5 Ayes (Lacoste, Pike, Emmanuelle, Mooney, Warfel)      0 Nays

**4. Receive & act on Request of Cindy Kelly and Interstate Navigation: operate food truck at Plat 6, Lot 150 November 25, 26, 27**

Cindy Kelly was present.

Mr. Warfel moved to approve the request of Cindy Kelly and Interstate Navigation to operate the Pots and Kettles food truck at Plat 6, Lot 150 on November 25<sup>th</sup>, 26<sup>th</sup> and 27<sup>th</sup>. The motion was seconded by Mr. Pike and carried.

5 Ayes (Lacoste, Pike, Emmanuelle, Mooney, Warfel) 0 Nays

**5. Discuss and act on reimbursement of Mercer Group for travel expenses not covered in service contract**

Mr. Lacoste explained that the Mercer Group submitted a bill for charges that were outside of the scope of the signed contract. Finance Director Land reviewed the charges which included airline travel, mileage reimbursement, per diem, copying, mailing, etc. She explained that the charges outside the contract total \$2,099.82. Discussion ensued.

Mr. Mooney stated he believed the charges were previously discussed and inadvertently not included in the contract. Mr. Warfel concurred.

Mr. Pike moved to not pay the extra expenses outside the contract billed for by the Mercer Group. Mr. Emmanuelle seconded the motion and it carried.

3 Ayes (Lacoste, Pike, Emmanuelle) 2 Nays (Mooney, Warfel)

**6. Receive and act on Minutes of November 7, 2016**

Mr. Lacoste moved to approve the minutes of November 7, 2016. The motion was seconded by Mr. Pike and carried.

5 Ayes (Lacoste, Pike, Emmanuelle, Mooney, Warfel) 0 Nays

**7. Receive and act on update from Town Solicitor regarding Interstate Navigation application to Division for authority pursuant to RIGL 39-3-15 to refinance debt with Town Washington Trust Company. This item may be discussed in closed session pursuant to Rhode Island General Laws §42-46-5(a)(2) "Sessions pertaining to collective bargaining or litigation, or work sessions pertaining to collective bargaining or litigation."**

At 9:33 p.m., Mr. Lacoste moved to go into closed session pursuant to RIGL 42-46-5(a)(2) for discussion of litigation in regards to Interstate Navigation application to refinance debt and Rhode Island Fast Ferry. Mr. Pike seconded and the motion carried.

5 Ayes (Lacoste, Pike, Emmanuelle, Mooney, Warfel) 0 Nays

**8. Receive and act on update from Town Solicitor regarding Rhode Island Fast Ferry This item may be discussed in closed session pursuant to Rhode Island General Laws §42-46-5(a)(2) "Sessions pertaining to collective bargaining or litigation, or work sessions pertaining to collective bargaining or litigation."**

Mr. Lacoste moved to come out of closed session at 9:43 p.m. The motion was seconded by Mr. Warfel and carried.

5 Ayes (Lacoste, Pike, Emmanuelle, Mooney, Warfel) 0 Nays

Mr. Lacoste moved to seal the minutes of the closed session. Mr. Emmanuelle seconded and the motion carried.

5 Ayes (Lacoste, Pike, Emmanuelle, Mooney, Warfel) 0 Nays

Mr. Lacoste stated that one vote was taken in closed session that was unanimously approved, regarding the Interstate Navigation's application to refinance debt. He noted that the vote will not be disclosed at this time, as disclosure may jeopardize strategy.

Mr. Lacoste moved to adjourn at 9:44 p.m. Mr. Pike seconded and the motion carried.  
5 Ayes (Lacoste, Pike, Emmanuelle, Mooney, Warfel)      0 Nays

Millicent McGinnes  
Deputy Town Clerk

Minutes approved: December 5, 2016

**The Planning Board Meeting**  
**Wednesday, October 5, 2016**  
**7:00 P.M. @ Town Hall, Old Town Road**  
**Block Island, RI 02807**

**MINUTES**

The Town of New Shoreham Planning Board convened for a meeting at 7:00 pm at the Town Hall on October 5, 2016. Present were Margaret Comings, Sven Risom, Sam Bird, John Spier, Socha Cohen, Dennis Heinz and Mary Anderson. Also present were Land Use Administrative Officer Jennifer Brady and Town Planner, Alison Ring.

**1. PUBLIC HEARING for the New Shoreham Comprehensive Plan.**

The Proposed Comprehensive Plan is a land use plan and is an update of the Town of New Shoreham Comprehensive Plan 2002 with updates through 2009. These amendments are made in accordance with the provisions of chapter 45-22.2 of the General Laws of the State of Rhode Island. . Consideration, Approval, and Recommendation of Adoption to Town Council of new Town of New Shoreham Comprehensive Community Plan.

Ms. Comings moved to open the public hearing. Motion seconded by Mr. Risom and passed with a unanimous vote.

Alison Ring provided an overview of the Comprehensive Plan including what the documents is, why it is important, new requirements, update process, and significant changes. Statewide Planning had reviewed all the elements and all of the comments are incorporated into the document.

Kim Gaffett, Ken Lacoste and Norris Pike were present and spoke from the audience.

Minor corrections and language clarifications were suggested. For example, adding language regarding walking path at Ball O'Brien Park. Updates in language were also made as a result of changes in status for projects. For example, broadband cable completed and BIPCO purchase. A new action item to update the Island Energy Plan was added. The Planning Board agreed to provide the public with additional time to review the document and provide comments.

Ms. Comings moved to continue the public hearing to October 12, 2016 at 12:00PM. Motion seconded by Mr. Risom and passed with a vote of 7-0. (Comings, Bird, Risom, Spier, Anderson, Heinz and Cohen voted in favor)

2. Hyland, Harold. Hyland, Rosalind & Hyland, John. Plat 14, Lot 62. Pre-application for a Minor Subdivision of property off West Side Road.

Harold Hyland, Rosalind Hyland & John Hyland were present as the applicants. The applicants submitted two plans and prefer the "Preferred" plan. The pre-application is for information sharing and for the Planning Board to provide input and guidance. The board and staff had concerns regarding the right of way and access to the property as well as other issues that arose.

Mr. Hyland stated that the subdivision was for tax purposes and to be sold to the Nature Conservancy.

No action was taken.

3. Phelan, Blake and Michele. Plat 10. Lots 19-1 & 23-1. Pre-Application for a Major Subdivision of land on Payne Road.

At the applicant's request, the application was tabled and will be removed from the agenda until the applicant requests to return to the Planning Board.

4. CDBG Grant. Corn Neck Road Planning Study. Review draft RFP / Scope of Work

Ms. Ring reported that the grant contract has been finalized with Town Attorney Kathy Merrolla and the Town Manager and that the request for proposals was under review with solicitor.

5. Comprehensive Plan status update.

The Board will hold a meeting on October 12, 2016 at 12:00pm.

6. Approval of Minutes

Ms. Comings made a motion to approve the June 8, 2016 and September 14, 2016 minutes. Motion seconded by Mr. Spier and passed unanimously.

Ms. Comings made a motion to adjourn at 9:00p.m. Mr. Spier seconded the motion. The motion passed unanimously.

Respectfully submitted,

Jennifer Brady  
Land Use Administrative Officer  
Town of New Shoreham

**The Planning Board Meeting**  
**Wednesday, October 12, 2016**  
**12:00 P.M. @ Town Hall, Old Town Road**  
**Block Island, RI 02807**

**MINUTES**

The Town of New Shoreham Planning Board convened for a meeting at 12:00 pm at the Town Hall on October 12, 2016. Present were Margaret Comings, Sven Risom, Sam Bird, John Spier, Socha Cohen, Dennis Heinz and Mary Anderson. Also present were Land Use Administrative Officer Jennifer Brady and Town Planner, Alison Ring.

1. **PUBLIC HEARING for the New Shoreham Comprehensive Plan.** (Continued from October 5, 2016)

The Proposed Comprehensive Plan is a land use plan and is an update of the Town of New Shoreham Comprehensive Plan 2002 with updates through 2009. These amendments are made in accordance with the provisions of chapter 45-22.2 of the General Laws of the State of Rhode Island. Consideration, Approval, and Recommendation of Adoption to Town Council of new Town of New Shoreham Comprehensive Community Plan.

The Board reviewed the drafted revisions incorporating comments from the public hearing on October 5, 2016. There were no additional comments from the public. The board agreed to make a few additional changes including language on exploring funding for upgrading OWTS galley systems. Additional language and an action item to explore ordinances to help control and prohibit the invasive species flora and fauna was also added.

Mr. Risom made a motion to approve, adopt and forward to the Town Council the 2016 Comprehensive Plan. Motion seconded by Mr. Spier and passed with a unanimous vote. ( Spier, Risom, Cohen, Comings, Heinz, Bird and Anderson )

2. Discussion regarding the October 5, 2016 meeting with the USDA.

Ms. Cohen had attended a meeting with the USDA and she submitted material for the board to review. No action was taken as this was information only.

Mr. Spier made a motion to adjourn at 12:40p.m. Mr. Risom seconded the motion. The motion passed unanimously.

Respectfully submitted,

Jennifer Brady  
Land Use Administrative Officer  
Town of New Shoreham