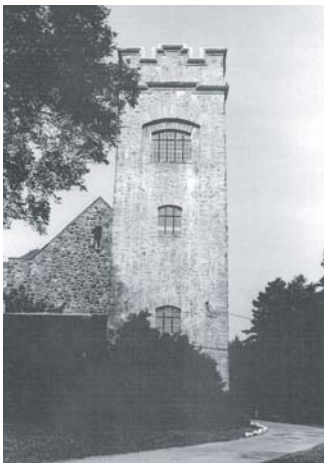
Town of Barrington
Comprehensive Community Plan



2015 Update

Comprehensive Plan of the
Town of Barrington, RI

Amended July 2019

www.barrington.ri.gov

Town of Barrington, RI
Comprehensive Community Plan

2015 Update

Adopted by the Town Council
and the Planning Board of the Town of Barrington
March 25, 2015

Includes Amendments Adopted by Town Council on July 29, 2019

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INTRODUCTION

The 2015 update is the Town's official Comprehensive Community Plan, completed as required by the RI Comprehensive Planning and Land Use Regulation Act. The 2015 update puts forward new goals, objectives and actions for the next 10 years. Each section of the plan dealing with a particular element contains a description of existing conditions, a discussion of issues and opportunities identified using a 20-year planning horizon, and general goals, objectives and policies to guide the Town's future actions.

The document is intended to be a fully integrated plan, not one that can be pulled apart one item at a time.

With adoption by the Town Council, the Barrington Comprehensive Community Plan is the official policy document of the Town, having both policy and regulatory implications.

Plan Structure

This Introduction section includes a brief description of the history of Barrington and the overarching issues the community faces. It is followed by nine elements, which describe specific background, issues, goals, objectives, policies, and actions for each of the topics, consistent with the Statewide Planning Office's Comprehensive Plan guidance.

These elements are:

- Housing & Neighborhoods
- Economic Development
- Circulation
- Community Services & Facilities
- Natural & Cultural Resources
- Outdoor Recreation
- Energy
- Natural Hazards
- Land Use

Energy and Natural Hazards are new elements, required under 2011 revisions to the State Comprehensive and Land Use Act. By complying with the requirements of the amended Comprehensive Plan Act, State approval of this Plan will be valid for 10 years.

The final section of this document, the Implementation Plan, prioritizes, identifies resources, and assigns responsibility for the implementation of each action. The intent is to provide a roadmap for tracking progress toward achieving the goals of the plan. Implementation will require action by the Town Council, Planning Board, other boards and commissions, and Town departments, as well as the State and local organizations. This will include changes in Barrington's zoning and subdivision ordinances, the development of new procedures and regulations, revisions to capital planning priorities, and the undertaking of additional plans and studies.

The development of the Comprehensive Plan is only the first step in undertaking changes in Barrington that will prepare it for the future in a way that both provides for its citizens and protects its important resources. Constant attention will need to be given to each of the implementation steps if that future is to be achieved. The Planning Board recommends that the Town conduct a review of the Implementation Plan on an annual basis to assess its progress and prioritize resources for each year.

Major Themes

Because many issues the facing the Town of Barrington cut across the specific elements described above, the Planning Board has adopted the following "Major Themes" as a guide for the development of the 2015 update and as a way to prioritize individual goals, policies, and actions. These themes are:

- *Meet the needs of an aging population*
- *Promote a vibrant Village Center and diverse economy*
- *Strengthen connectivity within town*
- *Embrace a cleaner, greener future*
- *Conserve and protect the special qualities of Barrington's neighborhoods*
- *Achieve resilience in the face of a changing environment*

These themes can help the Town focus on its broader goals as it balances competing needs and confronts emerging pressures. In a town that is approaching build-out, addressing State-mandated affordable housing goals, promoting economic development, adding parks and town facilities, protecting environmentally sensitive areas, and minimizing the effect of rising energy costs is incredibly difficult.

The updated plan and the themes described above are intended to provide guidance to officials who are dealing with these issues. Our hope is for each decision to be made with an eye toward the future and its effect on the long-term objectives of the Town.

PROCESS

The Planning Board, together with the Office of the Town Planner, worked for more than a year to develop the 2015 Comprehensive Community Plan. The Board formed subcommittees to focus on specific elements, meet with stakeholders and draft initial recommendations forwarded to the full board. As the Board continued to refine the plan, drafts were made available on the Town website and at Town Hall and the Library.

In September 2014, the Planning Board held community workshops held at sites throughout town: at Hampden Meadows School, Atria Bay Spring Assisted Living and Nayatt School. Everyone in Town was invited to attend, with postcard invitations mailed to every address in Barrington. Overall, more than 60 people attended.

At the workshops, the Planning Board presented an overview of the draft Plan, including key issues, major themes and the goals, objectives, policies and actions. Those in attendance were asked to "vote" on the draft goals and actions using yellow dots for priorities, and red for items that people felt should not be in the plan (see photo below).

To complete the final plan, the Board factored in input from the public as well as comments from the State and local departments, boards and commissions. On March 25, 2015, the Town Council and the Planning Board held a hearing on the 2015 Comprehensive Community Plan. The plan was adopted by the Council on a 3-2 vote, and by the Planning Board on a 7-0 vote.

HISTORICAL OVERVIEW OF BARRINGTON

Barrington today is the result of hundreds of years of human activity that made use of its lands, waters and natural resources. At the onset of European colonization in the mid-seventeenth century, the town's two peninsulas were within Sowams, the homelands of Massasoit, Chief Sachem of the Wampanoag Tribe. The precise location of Massasoit's village has not been determined, although it most likely was in either Barrington or Warren. The Wampanoag Indians used the lands of Barrington for hunting, fishing and cultivating crops. The same physical resources that supported the Wampanoags had also attracted their ancestors. Archaeological discoveries within Barrington have demonstrated that Native Americans were active here four to ten thousand years before the present.

European colonization in the second half of the seventeenth century initiated a decline in Native American fortunes. By 1667, enough English settlers from the Plymouth and Massachusetts colonies were drawn to the fertile Sowams lands to incorporate the Town of Swansea. Tensions between the English colonists and Native Americans produced by this English encroachment broke into the open hostilities of King Philip's War here in 1675. By the following year the Wampanoags' hold on their native land was broken, and the colonists began to rebuild their largely destroyed settlement.

From these colonial origins, a farming society developed in the eighteenth century and prospered into the nineteenth century. In this agricultural period of development, the lands of Barrington were parceled into pasture, cropland and homesteads with a simple network of roads linking farmers to their holdings and to neighboring communities.

Photos (clockwise from top left) Mathewson House (ca. 1850), RI Lace Works (1920, 1938; demolished); West Barrington—view from Bullock's Cove (postcard, ca. 1909)

Source: "Historic and Architectural Resources of Barrington, RI," RI Historical Preservation Commission, 1993.

Barrington's equivalent of a town center developed in the eighteenth century around the Congregational Church still in place along the north end of County Road. At the junction of the Barrington and Warren Rivers, a second water-oriented settlement developed around a number of shipyards and traders' wharves and warehouses. By the early nineteenth century these maritime activities had moved across the river to Warren, and Barrington's history as a seaport was over.

As industrialization transformed Rhode Island in the nineteenth century, Barrington was affected, although not in a typical way. Lacking suitable water-power sites or a working waterfront, the town was largely bypassed in the extensive development of water and steam-powered factories. When industry did arrive, it was in 1840 in the form of brick manufacturing. In the process of working clay beds in the Nayatt area, the brick manufacturers transformed Mouscochuck Creek into a barge canal and created the clay pits, now flooded and known as Brickyard Pond and Echo Lake. This industry which persisted until the 1930's, also transformed the town's social landscape; large numbers of Italian immigrants joined the workforce in the late nineteenth century, and remained to develop their own neighborhoods along Maple Avenue and Middle Highway.

A second pivotal event occurred in the mid nineteenth century with the construction of the Providence, Warren and Bristol Railroad across town in 1855. At a time when Providence was becoming the region's commercial, financial and industrial center, the railroad brought Barrington within the City's sphere and initiated the trend of suburban residential development which was to dominate the town's future. A new neighborhood began to develop along the rail line at Drownville in West Barrington, and a new town center emerged where the railroad crossed County Road. At the same time, the town began to draw the attention of those eager for relief from the City. At Nayatt Point resort hotels appeared while both vacation and year-round homes spread along the extensive shore- front. These developments included both expensive building in prime locations, as well as more modest houses where conditions allowed.

The patterns established in the second half of the nineteenth century guided Barrington's growth into the twentieth century. The railroad also promoted the growth of a small industrial district in Bay Spring, where factories engaged in textile finishing and lace-making. The automobile, which first supplemented and then replaced the railroad as a means of transportation between Barrington and Providence, induced a broader pattern of development across the town. The post-World War II era saw Barrington as a favored suburb absorbing still more residential development.

Today, this trend has reached a climax of sorts. While the once-predominant rural flavor is still apparent, Barrington's agricultural character has greatly diminished in the recent past and recreational boating now dominates over commercial fishing activities on the waterfront. The town's industry, which was always limited, has gradually dwindled to its present minor status. Barrington is most readily identified as a commuter suburb typified by its extensive residential neighborhoods, yet more than 300 years of history have indelibly stamped the town's character and contribute powerfully to its distinctive and attractive appearance.

-Richard Greenwood, 1992

Rick Greenwood, who lived on Maple Avenue, served on the Barrington Technical Review Committee from 1994 through 2014. With his deep knowledge of history and fair, thoughtful approach to reviewing new development, Rick's contributions to the Town were immeasurable. He made Barrington a better place.

1 Housing & Neighborhoods

Overview

Barrington is a community of neighborhoods with distinct identities shaped by the town's extensive shoreline and its agricultural and industrial heritage. The impact of the railroad is evident in mix of houses and lot sizes within the early railroad suburb that developed around the former Drownville Station. Land carved into 5,000-square-foot lots and smaller formed the dense development patterns in West Barrington, where houses were built for workers from the former Brickyards and Lace Works.

A majority of the land, though, was divided into large agricultural plats that formed the basis of the primary road system and the pattern of subdivisions that eventually replaced these farmlands. The stone walls on the edges of the large lots in the upscale Rumstick Road neighborhoods had marked the borders of farm fields years ago. The Roberta, Thurston and Country Club Plats, developed over a relatively short period of time during the 1950s and 1960s, are examples of the suburban model of houses on quarter-acre and half-acre lots.

While each neighborhood in Barrington has maintained a unique scale and character, almost all of them share a common characteristic: most of the land has been developed to the extent allowed by zoning. In other words, built out. With much of Barrington essentially at build-out, the Comprehensive Community Plan examines the following key issues:

- How will Barrington meet future needs for housing, both affordable and market-rate, given the limited supply of developable

Houses (from left to right) in West Barrington and Hampden Meadows and on Rumstick Road and George Street

properties that have access to water and sewer and adequate roads to support this growth?

- What should the Town do to meet the housing needs of the burgeoning retiring Baby Boomer generation?
- To what extent should Barrington encourage development of alternatives to the single-family homes on quarter-acre lots and larger?
- If higher densities and varying housing types are needed to meet housing needs, how can the Town preserve community character?

Existing Conditions

Housing Construction Activity

Data from 1980 through 2013 (See **Table 1**) show a steady drop in the number of housing permits issued per year, with the exception of 2008—when permits for 46 multi-family units , plus one single-family unit, were issued for the Sweetbriar affordable housing development.

Overall, the number of new single-family homes constructed in town has dropped to fewer than 15 per year since 2007. Likely factors for the slowdown in activity are the housing crisis coupled with the increasing scarcity of available land for development. For the 1980s, building permits for new houses (no multifamily) averaged almost 46 per year. The annual average declined to 29.5 for the 1990s, to 19 from 2000 to 2009, and 12 for 2010 to 2013.

In the 1990s, the Town issued permits for one multifamily project, in 1996 for the renovation of the Pilling Chain Building for 60 senior apartments (limited to ages 62 and over). The 126-unit Bay Spring Assisted Living facility, built in 1999, is not included in the housing permit data as it is considered a commercial use.

The Town has issued more permits for multi-family development projects in recent years, in addition to Sweetbriar. These include 12 apartments at 60 Bay Spring Avenue, and ten apartments above storefronts at three mixed-use developments in the Village Center. These units were built under the Town's mixed-use provisions of the Zoning Ordinance. In addition, 10 townhouse units were built under the comprehensive permit process, replacing a vacant commercial building on Washington Road adjacent to Sweetbriar.

Table 1: Residential Permits 1980-2013

Year	Single-Family	Multi-Family	Total
1980 to 1989	458	0	458
Average/Year: 1980s	45.8	0	45.8
1990 to 1999	295	60	355
Average/Year: 1990s	29.5	6	35.5
2000	19	0	19
2001	14	0	14
2002	16	0	16
2003	27	0	27
2004	31	3	34
2005	24	6	30
2006	23	0	23
2007	16	0	16
2008	11	54	65
2009	7	0	7
2000 to 2009	188	63	251
Average/Year: 2000s	18.8	6.3	25.1
2010	13	7	20
2011	7	0	7
2012	12	0	12
2013	15	4	19
2010-2013	47	11	58
Average/Year: 2010-2013	11.75	2.75	14.5
Total	988	134	1122
Average/Year: 1980-2013	29.9	4.1	34.0

Source: Town of Barrington Building Permit Records

Table 2: Population: 1990-2010 (State, Bristol County, Bristol County Towns)

City/Town	2000	Change	% Change	Pop.	Change	% Change
	Pop.	'90-'00	'90-'00	2010	'00-'10	'00-'10
Rhode Island	1,048,319	44,855	4.47%	1,052,567	4,248	0.41%
Bristol County	50,648	1,789	3.66%	49,875	-773	-1.53%
Barrington	16,819	970	6.12%	16,310	-509	-3.03%
Bristol	22,469	844	3.90%	22,938	469	2.09%
Warren	11,360	-25	-0.22%	10,627	-733	-6.45%

Source: U.S. Census Bureau

Demographic Trends

Population

From 1990 to 2000 Barrington grew by 6 percent, the highest rate of growth among the three Bristol County communities. Since 2000, however, the town's population has slipped, despite an increase in housing units. According to the US Census Bureau the town's population dropped by 3 percent between 2000 and 2010, from 16,819 to 16,310 (see **Table 2)**. The picture was mixed in the two other towns in Bristol County. Bristol grew by 469 people (2.1 percent), while Warren's population shrank by 733 people (6.6 percent).

The State projects a continued decline in Barrington's population through 2040, when the town's population is projected to total 15,569 (see **Table 3)** - or 741 fewer people compared to the 2010 census count. While the State's projections are somewhat helpful in planning for the future, they do not necessarily reflect what is actually occurring within an area and do not account for additional housing resulting from this Plan's senior and affordable housing strategies.

Age Characteristics

According to Census data for 2000 and 2010 (see **Table 4** on the following page), Barrington's population is aging. Since 2000, the town has seen the greatest increase in people in the 45-year to 64-year age range — covering the "Baby Boomer" generation. While this age group grew by more than 1,200 during this period, all other age categories either saw very small increases or shrank. The largest drop since 2000 came in the 35 to 44 age cohort, which decreased by 969 people. Further evidence is in the rise in the median age in Barrington, which in 2010 stood at 44.1 years — up 17 percent since 1990 (37.7 years).

The aging of the Baby Boomers will continue to ripple through the town's oldest age cohorts in the coming years—a phenomenon experienced not only here but across the country.

While the town's population is trending older, census data reveal the population within the youngest age groups has been shrinking or just inching up. For example, the number of children under 5 years old declined by 261 (26 percent) from 2000 to 2010, while those between 5 and 19 grew by only 48.

These trends have implications for schools and other community services and facilities (see discussion in the Community Services and Facilities element), but also the type and amount of hous-

Table 3: Population Projections to 2040

Year	Population	Change (10-Year Periods)	%Change (10-Year Periods)
1990	15,849	--	--
2000	16,819	970	6.1%
2010	16,310	-509	-3.0%
2020*	15,933	-377	-2.3%
2030*	15,914	-19	-0.1%
2040*	15,569	-345	-2.2%

Source: Statewide Planning : Technical Paper 162, RI Population Projections 2010-2040 (April 2013)

Table 4: Age Distribution, 2000, 2010

	2000		2010		2000-2010 Change	
Age	Persons	% of Total	Persons	% of Total	Number	%Change
Under 5	996	5.9%	735	4.5%	-261	-26.2%
5 to 19	4,105	24.4%	4,153	25.5%	48	1.2%
20 to 34	1,825	10.9%	1,358	8.3%	-467	-25.6%
35 to 44	3,115	18.5%	2,146	13.2%	-969	-31.1%
45 to 54	2,780	16.5%	3,264	20.0%	484	17.4%
55 to 64	1,527	9.1%	2,261	13.9%	734	48.1%
65 to 74	1,264	7.5%	1,159	7.1%	-105	-8.3%
75 & over	1,207	7.2%	1,234	7.6%	27	2.2%
Total	16,819	100%	16,310	100%	-509	-3%

Source: 2000, 2010 census

ing needed going forward.

Income Characteristics

Census data indicate that the town's median income increased from $74,591 in 1999, to $103,211 based on the American Community Survey (ACS) estimate for 2008 through 2012 (see **Table 5**). The number of households earning less than $100,000 fell by 1,144, while those making more than that amount grew by 1,015. Based on the 2008-12 estimates, there were 1,386 households, or 23.5 percent of all households, with a total income of less than $50,000—compared to 33 percent in 1999. The median household income in Barrington was 84 percent higher than the state median income ($56,102), according to the ACS data. These trends are consistent with past data, as the town's income level historically been much higher than both the county's and the state's.

While the income analysis above can be an indicator of trends in Barrington, it cannot serve to derive the numbers of families that qualify for affordable housing assistance. These figures do not assume that all people living together are related, nor does it break down income levels by family size, both of which are factors to determine eligibility for low- and moderate-income housing.

In order to qualify for low- and moderate-income housing, residents in those units are subject to income limits determined annually

Table 5: Income Distribution (Households) - 2000, 5-Year ACS Data (2008-12)

	Barrington				Bristol County		Rhode Island	
	1999		2008-12*		1999	2008-12*	1999	2008-12*
Income	HH's	%	HH's	%	HH's	%	HH's	%
Less than $15,000	460	7.6%	224	3.8%	13.8%	11.1%	17.7%	13.6%
$15,000 - $24,999	377	6.3%	301	5.1%	10.6%	8.0%	12.4%	10.0%
$25,000 - $34,999	529	8.8%	401	6.8%	10.6%	8.3%	11.9%	9.0%
$35,000 - $49,999	634	10.5%	460	7.8%	14.3%	10.4%	15.7%	12.6%
$50,000 - $74,999	1,029	17.1%	660	11.2%	19.1%	15.5%	20.2%	17.4%
$75,000 - $99,999	921	15.3%	760	12.9%	12.6%	11.3%	10.7%	13.0%
$100,000 or more	2,073	34.3%	3,088	52.4%	19.0%	35.5%	11.4%	24.6%
Total	6,023	100.0%	5,894	100%	100%	100%	100%	100%
Median Household Income (estimate)	$74,591		$103,211		$50,737	$71,806	$42,090	$56,102

Source: U.S. Census Bureau - 2000, 2008-12 American Community Survey estimates

Table 6: HUD Income Limits, FY 2012: Providence-Fall River-Warwick, RI-MA MSA

% of Median	Income Limits for Household Size							
HH Income	1	2	3	4	5	6	7	8
30%	$15,900	$18,200	$20,450	$22,700	$24,550	$26,350	$28,150	$30,000
50%	$26,500	$30,250	$34,050	$37,800	$40,850	$43,850	$46,900	$49,900
80%	$42,350	$48,400	$54,450	$60,500	$65,350	$70,200	$75,050	$79,900

Source: US Department of Housing and Urban Development

for the region by the U.S. Department of Housing and Urban Development (HUD). Barrington falls within the Providence-Fall River-Warwick, RI-MA Metropolitan Statistical Area. In this area, the median household income for FY2012 was $75,600, with the corresponding income limits for different household sizes (See **Table 6**). Median household income may be relatively high; yet, per Table 5, 15.7 percent of Barrington households earn less than $35,000 per year, of which all would easily fall within the HUD income limits based on 80 percent area median income. Additional households, depending on household size, also would fall within the HUD limits, as 23.5 percent of all households earn less than $50,000, and 34.7 percent earn less than $75,000.

Build-Out Analysis

Calculations for remaining buildable land have been completed using the 2011 RI Geographic Information System land use data, adjusted to account for new and approved development in town since 2011. As depicted on **Map HN-1**, the remaining vacant buildable parcels—zoned residential or mixed-use commercial—are scattered throughout Barrington, with just a few with more than 5 acres of developable upland that also have access to infrastructure necessary to support new development (water and sewer). The build-out analysis shown in **Table 7**

Table 7: Build-Out Analysis—Existing Zoning, Housing Strategies, 2014

Zoning District	Total Acres	Total Buildable Acres	Developed Acres	Remaining	Units Possible: Existing Zoning***	Units Possible w/ LMI Housing Strategies
R10	960	938	917	21.4	86	126
R25	1854	1662	1534	127	222	302
R25C	28.3	20.8	19.4	1.4	0	0
R40	422	355	311	44	44	59
R40-CD	74.5	59.5	12.1	47.4	47	47
B	56.9	55.6	51	4.6	46	52
NB	78.3	77.1	67.3	9.8	98	33
LM	4.8	1.7	0.6	1.1	11	11
EH	8.4	8.2	8	0.1	0	0
RE (Zion)*	37.1	31.9	24.5	7.4	0	220
Other**	9.7	5.6	0.5	5.2	40	40
Total	**3,533**	**3,215**	**2,945**	**270**	**594**	**890**

Source: RIGIS, Town GIS data (zoning, parcels), Town land development and subdivision records
**Former Zion Bible Institute currently zoned RE; designated on Future Land Use Map for Senior Residential Village.
**Unit count based on Palmer Pointe Neighborhood master plan /comprehensive permit - zoned R25
***Units in residential zones assume single-family housing (allowed as of right)
****Based on units generated within each zone per LMI Housing Strategies (see Tables B-2 to B-4 in Appendix I)

(previous page) uses data from Rhode Island GIS mapping data and local GIS data to calculate developed areas, buildable vacant land and undevelopable areas. The total area for each zoning district was calculated and the undevelopable land was subtracted out. The table shows that the affordable housing strategies (see Appendix I) would expand the Town's supply of potential housing units at build-out to 890.

Developable vacant land zoned for residential use is scarce within Barrington, totaling just 8.3 percent (270 acres) of estimated total buildable acreage (3,215 acres) within those zones. The Residence 25 zone contains the most undeveloped buildable land, with more than 200 units possible based on the analysis.

The analysis includes 40 units for the Sowams Nursery property east of Sowams Road, based on the approved master plan for the Palmer Pointe Neighborhood. The residential districts allow by right one unit per acre in R-40 districts, approximately two units per acre in R-25 and R-25-Cluster districts, and up to four units per acre in the Residence 10 district (R-10). The former Zion Bible Institute campus, designated for Senior Residential Village on the Future Land Use Map (see the Land Use element), is currently zoned Recreation and Education—where residential development is not permitted.

In addition to the traditional single-family residentially zoned districts, several types of housing are permitted either by right or by special permit in the Neighborhood Business District (NB) and Business (B) districts. Multifamily dwellings are allowed only in the Elderly Housing district and as part of a mixed-use commercial development in the NB and B zones. Two-family units and accessory apartments are allowed by special permit in the NB District and, due to Zoning Ordinance Amendments adopted in 2012, in the R-10, R-25 and R-40 districts. Cottage-style senior residential development is also allowed by special use permit for parcels of sufficient size in the residential zones and the NB and LM zones. (The unit counts in the build-out analysis for the R10, R25 and R40 zones assumes single-family housing only.)

Housing and Economic Development Goals

The Town has not focused on large-scale commercial or industrial development because it has tried to maintain a character consistent with a residential bedroom community. The central shopping district is located on County Road and adjacent portions of Maple Avenue and Waseca Avenue, where the most concentrated commercial development has occurred.

The Town created the NB district in 1994 to eliminate business zoning from certain areas of town while still allowing smaller offices and retail to serve the local community. The areas impacted by this designation were Maple Avenue, Bay Spring Avenue in West Barrington, and Sowams Road in Hampden Meadows. The Zoning Ordinance, last amended in 2012, permits as of right apartments above street-level commercial space within the Business and Neighborhood Business zones. Mixed-use developments built under these provisions have added 20 apartments to the Town's housing stock since 2000, including three affordable units built after mandatory inclusionary zoning was adopted in 2006.

With little vacant land available for new construction, commercial development, including mixed-use projects, has involved redevelopment of sites with existing uses. One of the town's largest commercially zoned sites, on Washington Road north of Bay Spring Avenue, was developed as housing—the 50-unit Sweetbriar affordable housing development. That project is located on a site zoned Business; the use was permitted under the comprehensive permit process. "Haines Park Village," which abuts Sweetbriar to the south, was completed in 2009, also under the comprehensive permit process. A

Table 8: Future Low- and Moderate-Income Housing Needs, by CHAS Data

Household Type	Proportional Need projected by 2000 CHAS	# of LMI Units Needed (#**x CHAS %)	Existing Supply	Future Need (=2000 CHAS proportion* - existing supply)
Elderly	49.7%	351	60	291
Family	34.9%	246	65	181
Other	15.3%	108	35	73
Total LMI Units	--	705	160	545

* CHAS proportion is calculated by adding all households </= 80% AMI reporting "any housing problems" and calculating each group as a percentage of the total number of households reporting problems.
** '#' equals the number of affordable units needed to achieve 10% of projected total housing construction.

large commercial building was removed for the development, which contains 10 apartments (three affordable) in duplex structures.

Barrington does not seek to attract significant commercial and industrial development. As economic development activities are limited, no development is anticipated that will affect the housing needs of employees in the area. One exception, to a limited extent, could be the redevelopment of the former Zion Bible campus (discussed elsewhere in the plan) as a senior residential development with assisted living and memory care units. The operation of the facilities would require the hiring of nursing care and other support staff.

Housing Needs

The U.S. Department of Housing and Urban Development's (HUD) Comprehensive Housing Affordability Strategy (CHAS) database provides a means for a community to examine the housing needs and problems of its residents in all income levels.[1] The most consistent findings in an analysis of CHAS data is that a significant number of households, especially those below 80 percent area median family income (AMFI), pay too large a percentage of their gross monthly income for housing.

CHAS data from 2000 (most recent dataset with data on needs by household type such as elderly households) show housing costs are a particular burden for the elderly, of whom nearly 45 percent pay more than 30 percent of their income to housing. **Table 8** shows how housing need is broken out according to resident type. Overall, according to 2011 CHAS data[2], 36.4 percent of Barrington households of all income levels are categorized as having 'housing needs,' which means they pay more than 30 percent of their income to housing.

<u>Extremely Low-Income (0% to 30% of Area Median Income (AMI))</u>
According to 2011 CHAS data, approximately 250 of the 5,805 households[3] in Barrington are extremely low-income. This represents 4.3 percent of all households, a decline since 2000 when the approximately 7 percent fell in this income bracket. (Statewide, 14.6 percent of all households were in this income range in 2010. About 72 percent of these households in Barrington own their own home (180), of which 72.2 percent spend more than 30 percent of their monthly income on housing expenses. The

[1] The U.S. Department of Housing and Urban Development (HUD) periodically receives "custom tabulations" of data from the U.S. Census Bureau that are largely not available through standard Census products. These data, known as the "CHAS" data (Comprehensive Housing Affordability Strategy), demonstrate the extent of housing problems and housing needs, particularly for low income households.

[2] The 2010 data are from the 2007-11 CHAS dataset.

[3] This figure is different than the total number of households in the 2010 Census of 5,994.

other 70 households are renters, of which 28.6 percent pay over 30 percent of their income on housing. (See **Tables 9A and 9B**.)

Very Low-Income (31% to 50% of AMI)
Six percent, or 345, of all Barrington households are very low-income. The 2011 CHAS database shows that 74 percent (255) of very low-income households own their homes. Of these homeowners, 240 (94 percent) pay over 30 percent of their income on housing costs. Every one of the 90 renter households (100 percent) within this income range spend more than 30 percent of their income on rent.

Low Income (51 to 80% of AMI)
Approximately 11.7 percent, or 605, of Barrington households are low income. In this income group, about 30 percent are renters and 70 percent are homeowners. The housing cost burden for this group is not as great for this income group, but still accounts for a large portion of the residents. In the low income category, about 70 percent of homeowners and 75 percent of renters spend more than 30 percent of their income on housing costs. These percentages, possibly a result of the housing crisis, have increased significantly since 2000. Then, approximately 53.6 percent of homeowners and 26.2 percent of renters spent more than 30 percent of their income on housing costs.

Homeless and Special Needs Populations
A large portion of Barrington's current Low-Moderate Income (LMI) housing supply supports the special needs population, accounting for approximately 35 units, or 22 percent, of existing LMI units in town. All of these units are group home beds. Only 16 shelter clients, or 0.2 percent of the state's shelter population, listed

Table 9A: Income by Cost Burden (Renters only)

Income by Cost Burden (Renters only)	Cost Burden 30% to 50% of HH Income	% of Households	Cost Burden > 50%	% of Households	Total HH's: Renters
Household Income <= 30% AMFI	0	0%	20	29%	70
Household Income >30% to <=50% AMFI	40	44%	50	56%	90
Household Income >50% to <=80% AMFI	75	45%	40	24%	165
Household Income >80% to <=100% AMFI	4	27%	0	0%	15
Household Income >100% AMFI	70	23%	10	3%	310
Total	189	29%	120	18%	650

Table 9B: Income by Cost Burden (Owners only)

Income by Cost Burden (Owners only)	Cost Burden 30% to 50% of HH Income	% of Households	Cost Burden > 50%	% of Households	Total HH's: Owners
Household Income <= 30% AMFI	10	6%	120	67%	180
Household Income >30% to <=50% AMFI	85	33%	155	61%	255
Household Income >50% to <=80% AMFI	190	43%	140	32%	440
Household Income >80% to <=100% AMFI	115	41%	65	23%	280
Household Income >100% AMFI	760	19%	155	4%	4,000
Total	1160	23%	635	12%	5,155

Source: 2007-11 American Community Survey/2011 CHAS Database

NOTES: 1. The four housing problems are: incomplete kitchen facilities; incomplete plumbing facilities more than 1 person per room; and cost burden greater than 30%.
2. The four severe housing problems are: incomplete kitchen facilities; incomplete plumbing facilities; more than 1 person per room; and cost burden greater than 50%.
3. Cost burden is the ratio of housing costs to household income. For renters- housing cost is gross rent (contract rent plus utilities). For owners- housing cost is "select monthly owner costs" which includes mortgage payment; utilities; association fees; insurance; and real estate taxes.

Barrington as their last residence in 2008.[4]

According to CHAS data, about 15 percent of low and moderate income housing will need to be dedicated to homeless and special needs persons in order to serve that population properly. Barrington understands the particular issues surrounding this population as well as its role within the region to provide housing opportunities. In particular, the Town has worked closely with East Bay Center, Inc. to ensure that proper accommodations are provided for special needs clients.

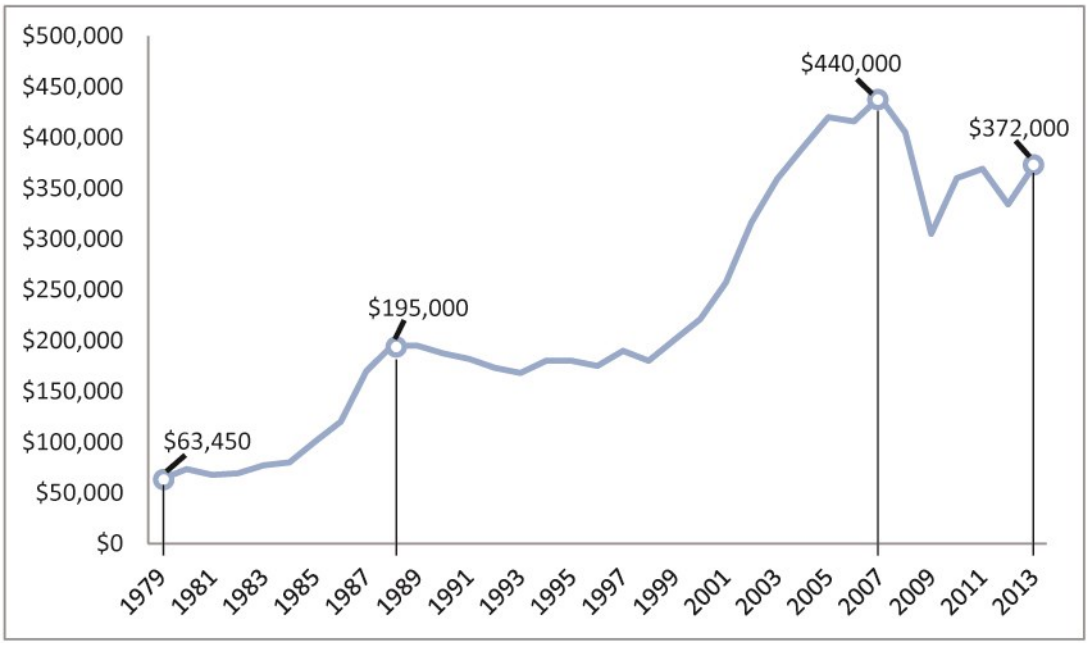
Homeownership and Rental Costs

Based on the 2010 Census, 87.3 percent of all occupied housing units in Barrington are owner-occupied. Thirty-four percent of all homeowners, representing almost 1,800 households, are paying more than 30 percent of their income on housing costs, according to 2011 CHAS data. This accounts for 72 percent (130) of extremely low income homeowners, 94 percent (240) of very low-income homeowners, and 75 percent (330) of low-income homeowners. Also, there are 4,280 homeowner households that earn more than 80 percent of area median family income, of which 1,025 (25.6 percent) experience housing cost burdens of at least 30 percent of their income.

The rental market in Barrington also shows many households that qualify for federal and state housing assistance. According to 2011 CHAS data, approximately 309, or 47.5 percent, of all renter households are paying more than 30 percent of their income on housing costs. This accounts for 28.6 percent (20) of extremely low income renter households, 100 percent (90) of low-income renter households, and 69.7 percent (115) of moderate income renter households. In addition, 26 percent (84) of the renter households earning more than 80 percent of the median income spend more than 30 percent of their income on housing costs.

In total, 2,104, or 36 percent, of the 5,805 households in Barrington (included in the 2011 CHAS data) are cost-burdened, of which 925 qualify for federal or state housing assistance. In comparison, 37.8 percent of Bristol County households

Figure 1: Annual Median House Sales Price —1979 to 2013



Source: Town of Barrington Tax Assessor records

[4] United Way R.I. Shelter Information Project *Annual Report 2007-2008*.

and 39.1 percent of state households are cost-burdened. Although a slightly smaller percentage of Barrington residents are cost-burdened with housing than residents elsewhere in the state or Bristol County, housing affordability remains an important issue to the community.

Despite the correction in the housing market with the housing crisis, the cost of housing in Barrington has continued to outpace the rise in median household income. In Barrington, the median single-family home price increased 68 percent from $221,000 in 2000 to $372,000 in 2013 (see **Figure 1**, previous page), while median household income increased by 38 percent (to $103,211) in roughly the same timeframe.

This mismatch often results in a lack of homeownership opportunities for new, young and elderly homeowners. By comparison, the median sales price for a single family home in Rhode Island increased 51 percent from $135,976 to $205,000 in 2013, while median household income has risen approximately 30 percent to $56,102 (per the ACS data for 2008-12).

Rental housing also faces this disproportionate increase in Barrington. The 2008 to 2012 American Community Survey estimates the median contract rent for Barrington at $1,175—almost double the median contract rent of $650 reported in the 2000 census. **Table 10** shows the distribution of rent price according to unit size (not including utilities).

Table 10: Rental Costs—Barrington

Unit Size	Average Rent		
	1990	2004	2013
1 BR	$ 613	$ 588	$ 973
2 BR	$ 675	$ 1,035	$ 1,273
3 BR	$ 795	$1,450	$ 1,654

Source: Rent Survey / RI Housing; 2005 Barrington Affordable Housing Plan

Table 11: Housing Units, 2000-2010

Housing Units	2000 Census	2010 Census	%Change
Barrington	6,199	6,386	3.0%
Bristol County	19,881	20,850	4.9%
Rhode Island	439,837	463,388	5.4%

Source: U.S. Census Bureau - 2000 and 2010 census

Housing Inventory

Housing Units

As shown in **Table 11**, there were 6,386 housing units in Barrington based on the 2010 census — an increase of 187 housing units, or 3 percent, from the 2000 census total. During this same time period, the number of housing units grew by 4.9 percent in Bristol County and 5.4 percent statewide.

Housing Stock: Age and Condition

Approximately 27 percent of the town's housing stock was built prior to 1940 and another 35 percent between 1940 and 1959 (see **Table 12**). Only 38.6 percent (or approximately 2,400 units) has been constructed since 1960. The median age of housing units is 57 years.

Housing Stock: Type

Based on the 2008-2012 American Community Survey, 91 percent of Barrington's housing was single-family, while the remainder consisted of various types of multi-family housing (see **Table 13**, next page). About 4.1 percent of the housing stock consisted of small multi-family structures, including duplexes, triplexes, and four-unit struc-

Table 12: Age of Housing Stock

Year Built	Number	% of Total
1939 or earlier	1,638	26.6%
1940 to 1959	2,148	34.9%
1960 to 1969	774	12.6%
1970 to 1979	397	6.4%
1980 to 1989	542	8.8%
1990 to 2000	464	7.5%
Built 2000 to 2009	200	3.2%
Median Year Built	1955	
Median Age	57 Years	

Source:2008-2012 American Community Survey

tures. The remaining housing included larger apartment buildings or complexes. **Map HN-2** shows the location of these various housing types in town.

Foreclosure / Blight / Abandonment

The percentage of foreclosures in Barrington, based on the number of mortgaged housing units, has ranged between 0.24 percent and 0.30 percent (see **Table 14**). The rate each year, from 2009 to 2013, has remained below than Warren and Bristol. Overall, Bristol County towns have had a much lower foreclosure rate than the state.

Barrington has no area that could be considered blight. The Building Official reports fewer than five complaints a year throughout town related to unkempt properties, such as overgrown or unmaintained yards. Further, the Town has not condemned any houses in recent years.

Overall Inventory and Occupancy Status

Barrington had 6,386 dwelling units in 2010 (based on 2010 census data) of which 118 were for seasonal, recreational, or occasional use and therefore not subject to the state's affordable housing requirements. Census data from 2010 counted 392 vacant housing units, or 6.1 percent of the total (see **Table 15)**.

Affordability of Existing Homes

Table 13: Housing Unit Types

Units in Structure	Estimate	% of Total
Total:	6,163	100%
1, detached	5,605	90.9%
1, attached	27	0.4%
2	199	3.2%
3 or 4	54	0.9%
5 to 9	11	0.2%
10 to 19	12	0.2%
20 to 49	20	0.3%
50 or more	235	3.8%
Mobile home	0	—
Boat, RV, van, etc.	0	—

Source:2008-2012 American Community Survey

In order to meet the 10 percent standard (which is based on 2010 U.S. Census figures), 627 units (10 percent of 6,386 less 118 seasonal units) of Barrington's dwelling units must be "affordable" based on the state's definition. The current affordable housing inventory of 160 units falls 467 short of the requirement. Factoring in additional growth, Barrington would need to produce approximately 544 more affordable units to meet the 10 percent standard over the next 20 years (see Appendix I, Table C-1).

Table 16 on the next page provides a summary of the town's LMI housing inventory as well as inventories for select communities. The table includes a comparison of the unit count, less HUD 202 and Sec. 8 elderly units—federal funding sources currently unavailable for new units. Overall, about 2.5 percent of Barrington's housing qualify as "affordable" under State law.

Based on assessed values, however, the Town has a healthy supply of existing houses would qualify as affordable on price alone. **Table 17** on the next page shows the distribution of

Table 14: Foreclosures as Percentage of Mortgaged Housing Units

	Year				
Town	2009	2010	2011	2012	2013
Barrington	0.30%	0.20%	0.20%	0.24%	0.24%
Bristol	0.40%	0.30%	0.50%	0.30%	0.31%
Warren	0.50%	0.50%	0.40%	0.50%	0.35%
Statewide	1.54%	1.02%	1.10%	0.90%	0.80%

Source: Housing Network of Rhode Island

Table 15: Occupancy Status—2010

Occupancy Status	Number	Percent of Total
Occupied Housing Units	5,994	93.9%
Vacant Housing Units	392	6.1%
Total	6,386	

Source: 2010 Census

houses based on tax assessment data. Using $250,000 as the maximum price of an affordable unit (this is somewhat lower than the actual maximum affordable price), 1,051 residential structures — in addition to those that already qualify as low-moderate income housing — fall within the affordable price range. This represents almost 18 percent of the total number of residential structures.

The distribution of these units is skewed toward areas with smaller lot size requirements—87 percent of the 209 residential structures valued at less than $200,000 are in the Neighborhood Business and Residence 10 zones, which have the smallest lot-size requirements. Both zones also have a significant number of lots that are smaller than the minimum area. Another 18 single-family and two-family structures valued at less than $200,000 are in the Business zone. These units are legal nonconforming uses; housing types other than apartments above retail are not permitted within the Business zone.

Table 16: Subsidized and Publicly Assisted Housing, 2013

	Barrington	Bristol	East Greenwich
Elderly			
Public Housing	-	195	
RI Housing	60	68	35
HUD 202	-	96	-
HUD Section 8	-	-	106
Subtotal	60	359	141
Family			
Public Housing	-	-	27
RI Housing	64	74	16
HUD Section 8	-	-	-
Other	1	26	7
Subtotal	65	100	50
Special Needs			
Group Home Beds	35	50	41
Transitional Units	-	26	-
HUD 811	-	-	-
Subtotal	35	76	41
TOTAL LMI Units	**160**	**535**	**232**
% Total	**2.55%**	**5.93%**	**4.34%**
TOTAL *	**160**	**439**	**126**
% Total *	**2.55%**	**4.87%**	**2.36%**

*LMI units other than HUD 202 and Sec. 8 units
Source: Rhode Island Housing

Of all residential structures (not including qualified LMI units) in the Business, Neighborhood Business and Residence 10 zones, 6.6 percent (200) are valued at less than $200,000, while 32 percent (973) are valued at less than $250,000. In contrast, just nine out of approximately 2,900 residential structures (0.3 percent) in the Residence 25, Residence 40 and Residence 40-CD zones are valued at less than $200,000. A total of 2.7 percent of residential structures in these zones are valued at less than $250,000.

Issues and Opportunities

The Planning Board has identified the following key challenges related to the production of housing needed to meet the Town's current and future residential needs.

Housing for Retiring Baby Boomers

The 78 million baby boomers (born between 1946 and 1964) entering retirement age across the United States means that communities are faced with a new set of housing challenges. One issue will be how to meet the spike in demand for housing for retirees. Another question is what will happen when the influx of boomers no longer is driving up demand for purchasing single-family homes, instead becoming sellers of houses that no longer suit family needs.
The State's projections for Rhode Island show the 65-and-over population growing by nearly

Table 17: Assessed Value of Residential Structures by Zoning District

	B Zone			NB Zone			R10 Zone			R25/R25C Zones			R40 Zone			R40CD Zone			
Assessed Value	SF	2F	Other	SF	2F	Oth-er	SF	2F	Other	SF	2F	Other	SF	2F	Other	SF	2F	Other	Total Units
$200,000 and less	9	9	-	15	17	12	128	10	-	7	1	-	1	-	-	-	-	-	209
$200,001 to $250,000	7	1	1	47	4	1	673	35	4	68	1	-	-	-	-	-	-	-	842
$250,001 to $300,000	-	-	-	23	-	-	863	9	4	246	2	-	-	-	-	-	-	-	1,147
$300,001 to $350,000	-	-	-	8	-	-	523	2	-	398	3	1	-	-	-	-	-	-	935
$350,001 to $400,000	-	-	-	9	-	1	276	4	-	357	-	1	2	-	-	-	-	-	650
400,001 to $450,000	-	-	-	3	-	-	137	-	1	336	1	-	2	-	-	3	-	-	483
450,001 to $500,000	-	-	-	1	-	-	74	1	-	283	1	-	1	-	-	1	-	-	362
$500,000+	-	-	-	1	-	-	104	-	1	952	2	-	237	-	-	7	-	-	1,304
Total	**16**	**10**	**1**	**107**	**21**	**14**	**2,778**	**61**	**10**	**2,647**	**11**	**2**	**243**	**-**	**-**	**11**	**-**	**-**	**5,932**

Source: Barrington Tax Assessor database

75 percent from 2010 to 2040.[5] If projections are accurate, the 65+ age group state-wide will total approximately 264,000 people, or more than 25 percent of the state's population, up from 14 percent today.[6]

The predominant housing type, the single-family detached house, represents one housing preference for some but certainly not all households of retirement age. A study published in the Journal of the American Planning Association examined issues related to the demand for "senior" housing created as boomers retire, and the family housing units that become available as boomers sell their homes. The study acknowledged that most people will remain in the same state as they age, but not necessarily the same community or house.

The challenge is for communities to "retain their elderly residents as long as possible to slow the flow of houses for sale." The study continued: "This makes it imperative to develop elderly friendly, vital communities (Achenbaum, 2005). Rather than encouraging segregation of the elderly in separate retirement institutions, urban designers should foster their social integration into more lively communities…." [7]

What makes a lively community that is appealing to retiring boomers? The authors cite the following: community activity centers for seniors, close-by retail services, and small, easy-access parks for midday socializing.

The Town in 2012 took steps toward addressing these concerns through zoning amend-

[5] Technical Paper 162 , RI Population Projections: 2010-2040 (Statewide Planning)

[6] The most recent projections by age for Barrington are in Statewide Planning Technical Paper 154 (August 2004): *RI Population Projections 2000-30,* showing Barrington's 65+ population growing by 40% from 2000 to 2030.

[7] *Aging Baby Boomers and the Generational Housing Bubble: Foresight and Mitigation of an Epic Transition.* Journal of the American Planning Association, Vol. 74, Issue 1 December 2008 , pp 17 - 33

ments allowing cottage-style "Senior Residential Communities" as a special use in all residential zones and in the Neighborhood Business, Business and Limited Manufacturing zones. To date, no cottage developments have been proposed.

Other opportunities to meet the growing need for senior housing are redevelopment of the former Zion Bible Institute campus, and development of two vacant parcels in Bay Spring. Appendix II outlines the Developer Guidance for rezoning the property to a new zone, "Senior Residential Village." The guidance sets goals for issues such as density, historic preservation, affordability, housing type, uses, recreational space, circulation and buffers. The Town Council approved the new zone in March 2016.

In 2017-2018, the Town hired Horsley Witten Group to conduct a zoning study of the Bay Spring Avenue corridor, as recommended in the Economic Development element of the 2015 Comprehensive Plan. As a result of the study, which included extensive public outreach, the Town in October 2017 replaced the Neighborhood Business on Bay Spring Avenue with a new zone, Residence-Business Flex, to allow for first-floor multifamily units rather than limiting them to the upper floors of a mixed-use building.

In addition, the study recommended establishing developer guidance for two key parcels in the Bay Spring Corridor – Lot 109 on Assessor's Plat 2, and Lot 154 on Assessor's Plat 2. The guidance (Appendix IIA) establishes guidelines for rezoning the two sites, including provisions for cottage-style housing, public access, and protection of environmentally sensitive land.

Figure 2: House Demolitions (examples)

Demolitions, 2012 and 2013: Top left—7 Court Avenue; top right—50 Ferry Lane; bottom left—7 Bourne Lane; bottom right—7 Richard Street

Neighborhood Character

As developable land becomes more scarce, Barrington may see increased pressure on existing neighborhoods, including:

- Demolition of smaller houses for larger homes, where a larger, new house would sell for much more than the existing house.
- Demolition of a house where rebuilding makes economic sense in cases where houses are in the flood zone and need to be elevated to avoid high flood insurance premiums.
- Development of higher density development than permitted by zoning, under the comprehensive permit affordable housing option.

Residential Demolitions

From 1999 through 2013, at least 105 houses were demolished across Barrington, ranging from two to 12 tear-downs per year, for an overall average of seven annually. The demolitions have occurred within all residential and mixed-use zones (see **Map HN-3**). The replacement of smaller houses with larger, much more expensive homes impacts the overall affordability of housing in town. The loss of any existing house within an established neighborhood can impact the character of a residential street if the new house overwhelms its neighbors. (See **Figure 2** on the previous page for images of four houses torn down in 2012 and 2013.)

Due to concern regarding an increasing number of tear-downs, a zoning re-write committee was formed in 2004. No action was taken at the time. However, in 2010, the Town Council adopted an ordinance requiring a notification process that must be followed before the Town can issue a permit for demolition. No additional measures have been taken to further address concerns related to the demolition issue.

Floodplain Mitigation

Another issue with the potential to affect neighborhood character is the impact of rising flood insurance premiums as well as the new flood maps of July 2014. The new maps reclassified flood zones in some areas, and changed the applicable elevation datum used to determine base flood elevations, placing houses at a lower elevation. These changes are pressuring owners of property in low-lying areas to elevate homes out of the flood zone—which could require raising a structure as much as eight or more feet. (See also the Natural Hazards element.)

These projects are important for reducing flood risk and preserving individual house values, but they also have the potential to alter the character of an area dramatically, and require relief from the Zoning Board for exceeding height limits and setbacks. These impacts will require evaluation to determine whether new standards are needed.

Density

Developers have sought significantly higher density for residential development by providing at least 25 percent of the units as affordable—the comprehensive permit option available under state law. Higher density can, if managed properly, can produce more affordable units, reduce infrastructure costs, and allow for more efficient and sustainable use of land. However, the projects also put pressure on the surrounding neighborhood—for example introducing many more units per acre within developed residential areas zoned for half-acre or quarter-acre lots. Concerns raised include impacts on the community character, as well as traffic, infrastructure, and the Town and school budget.

Multifamily / Infill Housing

The town's housing stock is becoming more diverse. Since 2005, the Town has approved 20 apartments built under the mixed-use commercial provisions of the Zoning Ordinance enacted in the early 2000's. Another 57 two-family, townhouse and multifamily units have been built under the comprehensive permit process since 2008, with another 40 units to be built as part of the Palmer Pointe development. None of the units are age-restricted; all are rental—helping meet the need for family rental housing units.

All of these developments are fully occupied (as of November 2014)—pointing to demand for this type of housing in town. To meet this demand, the Town anticipates continued construction of apartments on redevelopment sites within the Neighborhood Business and Business zones, where they are a "permitted" use. These areas are most suitable for multifamily development, in particular within the Village Center due to its proximity to goods and services and the main RIPTA bus routes on County Road.

In order to limit impacts on abutters as more infill sites are developed, the Town will need to evaluate existing standards, including buffers, lighting and parking design.

Existing "Affordable" Houses

Technically the number of units that count as "affordable" based on State law amount to 2.6 percent of Barrington's housing stock. Hundreds of qualified affordable units are needed to reach 10 percent. The build-out analysis reveals that it is highly unlikely Barrington can reach the 10 percent LMI housing goal through new construction alone.

Based on median sales prices, the housing market in Barrington is among the most expensive in Rhode Island. The median sales price in 2013 totaled $372,000. However, as Table 17 on Page 17 illustrates, Barrington has approximately 1,050 residential structures valued at less than $250,000, or roughly one out of every six dwellings.

These modestly priced homes represent an opportunity to "produce" LMI units utilizing housing that already exists, reducing the need to identify vacant parcels—which are expensive due to the limited supply of vacant land.

The Town's Housing Board of Trustees could play a critical role in "capturing" existing houses and qualifying them as affordable under State law—which requires a municipal subsidy, as well as a deed restriction and monitoring agreement to preserve long-term affordability. Such a program would require sufficient funding to acquire, renovate and re-sell (through a revolving fund) or to create effective voluntary incentives. The program also would require an administrator to be effective.

A 2014 report[8] by Barbara Sokoloff Associates, developed in consultation with the Housing Board of Trustees and the Town, recommends the creation of a Revolving Loan Fund to implement this strategy. It would require a one-time appropriation of "at least" $750,000 to capitalize the program. The Revolving Loan Fund could be supplemented with annual funding from sources such as the federal Community Development Block Program. Administration could be handled by a contracted consultant or an outside agency. A monitoring agency would also be required to ensure long-term affordability.

Affordable Housing Plan Progress

Currently Barrington is 467 units short of the 10 percent affordable housing goal established by State law. In 2007, Barrington had one family housing unit and 60 elderly housing units—in Barrington Cove Apartments—that qualified as affordable under the state's guidelines. The remaining affordable units consisted of 35 group home beds in various locations throughout town.

Since that time, the Town has made considerable progress toward achieving the 10 percent goal, despite the limited amount of land suitable for development. New affordable units built since 2008 have increased the number of LMI units by 68 percent, and include:

- Sweetbriar on Washington Road: 47 units have been built out of 50 approved (all affordable). Three house lots are vacant.
- Haines Park Village on Washington Road and Bay Spring Avenue: 3 out of 10 total

[8] Capture Existing Affordable Housing Study, 9/30/14, by Barbara Sokoloff Associates, Inc.

units qualify as affordable.

- Twelve units at "Walker Farm Lane" on County Road and Eleanor Drive (all affordable). The Town acquired the site for the development of the units, in partnership with a non-profit housing developer.

In 2013, the Planning Board approved the master plan for "Palmer Pointe," an affordable rental housing development. The Board, citing concerns related to density and abutter impacts, reduced the number of new units by eight to 40. Palmer Pointe is east of Sowams Road, on property used by Sowams Nursery that has been identified in the Comprehensive Plan as suitable for higher density under the "Village" zoning concept (see Appendix II). The completion of Palmer Pointe and other approved and pending developments with affordable units would bring the Town's affordable percentage to 3.34 percent of year-round housing units (see **Table 18**) - an increase of 121 percent in total LMI units since 2008.

Barrington also has made significant progress toward implementing almost all of the Affordable Housing Plan strategies, as proposed in the 2010 Comprehensive Plan. **Table 19** on the next page summarizes the Town's efforts to implement the Affordable Housing Plan. All of the changes related to Zoning Ordinance revisions have been completed.

Table 18: Low-Moderate Income Housing by Location and Status, 2014

Description	Address	School District	Single-Family	Two-Family	Multi-family	Group Home	# LMI Units	Total Units	Town LMI %
BUILT - Included in 2010 Census									
Sweetbriar	Sweetbriar Road	Primrose	1	38	8		47	47	
Mixed Use	Bay Spring Ave.	Primrose			1		1	12	
Haines Park Village	Washington Road	Primrose		3			3	10	
Barrington Cove	Bay Spring Ave.	Primrose			60		60	60	
Family housing unit	Western Ave	Primrose	1				1	1	
Group Home Beds	Various locations	various				35	35	35	
Subtotal			***2***	***41***	***69***	***35***	***147***	***165***	***2.35%***
BUILT - After 2010 Census									
Anoka Mixed-Use	Anoka/Wood Ave.	Nayatt			1		1	4	
Walker Farm Lane	County Road	Primrose	10	2			12	12	
Dziuba Subdivision	South St/Maple	Nayatt		2			2	3	
Subtotal			***2***	***41***	***69***	***35***	***15***	***19***	***0.24%***
Final Plan Approval									
Lavin's Subd.	Narragansett Ave	Primrose	2				2	10	
Sweetbriar	Sweetbriar Road	Primrose	3				3	3	
Bluemead Farm	Chachapacasset	Nayatt	1	2			3	11	
Subtotal			***5***	***0***	***0***	***0***	***8***	***24***	***0.13%***
Master Plan Approval									
Palmer Pointe	Sowams Road	Sowams		6	34		40	40	
Subtotal			***0***	***6***	***34***	***0***	***40***	***40***	***0.63%***
TOTAL			**9**	**88**	**172**	**70**	**210**	**248**	**3.34%**

Source: Barrington Planning Department

Goals, Objectives, Policies and Actions

Goal HN-1: Expand supply of senior housing to meet growing demand of retiring Baby Boomers and the needs of residents with disabilities.

Objective HN-1.1: Completion of at least 50 units within a senior residential community or communities by 2020.

Policy HN-1.1.1: Identify sites that are appropriate for a variety of housing types for seniors.

Policy HN-1.1.2: Reduce barriers to senior housing through amendments to the Zoning Ordinance and related regulations.

Policy HN-1.1.3: Support the development of housing for residents with physical and mental disabilities that encourage independent living, and support alterations to the town's current housing stock to achieve compliance with the RI Civil Rights of Individuals with Handicaps Act and the American with Disabilities Act of 1990.

Actions

A. Establish new senior residential community zoning at the campus of the former Zion Bible Institute site consistent with the Comprehensive Community Plan – Appendix II.
B. Complete a study of the market viability of the existing Zoning Ordinance Article XXX: Senior Residential Communities, and revise to enable cottage-style developments consistent with the Comprehensive Plan.
C. Revise Zoning Ordinances to allow for "senior-friendly" attached and detached accessory apartments on single-family lots.

Table 19: Low- and Moderate-Income Housing Action Table

Strategy	Responsible Party	Resource	Timeframe
Create a Housing Trust Fund	Town Council	Town Council, Planning Board, Housing Board	In progress
Establish a Housing Trust	Town Council	Initially volunteers, transition to full-time administrator	In progress
Pursue Public/ Private/ Nonprofit Housing Alliances	Town Council, Planning Board, Town Planner	Planning Board, Town Manager, Town Planner	Ongoing
Tax Credit Program	Town Council, Town Planner, Housing Trust	Town Staff, Planning Board, Housing Trust	Within 5 years
Evaluate Town, Tax Title Property for Use as LMI Housing Development	Town Council, Planning Board, Town Planner	Planning Board and Town Manager	Ongoing
Zoning Changes:			
1. Mandate Inclusionary Zoning	Planning Board, Council		Adopted (2006)
2. Senior Resid. Community			Adopted (2012)
3. Apartments Above Comm. Uses			Adopted (2012)
4. Allow Accessory Apartments			Adopted (2012)
5. Allow Affordable Housing Development on Substandard Lots			Adopted (2012)
6. Identify Areas that Could Support a Mix of Housing Types			Adopted (2012)
7. Allow "Village," "Mixed-Use Village" development.		Town staff, Housing Board, other boards	Subject to developer application)
Strongly Negotiate Comprehensive Permits	Planning Board, Town Council	Town staff, consultants	Ongoing
Capture Existing "Affordable Homes"	Town Council, Housing Trust	Town Planner, Finance Director	Ongoing

Source: Barrington Planning Department

Goal HN-2: Ensure that future development is compatible with the character of Barrington in general and that of individual neighborhoods.

Objective HN-2.1: Revise Zoning Ordinance and Map by 2017 to establish standards that protect or enhance the character of Barrington's neighborhoods through building and site design.

Policy HN-2.1.1: Pursue Zoning Ordinance amendments and other strategies that encourage compatible scale and building massing.

Policy HN-2.1.2: Encourage scattered-site affordable housing involving new construction and qualification of existing homes as affordable.

Policy HN-2.1.3: Allow well-designed, compatible mixed-use development in commercial areas, while enhancing the pedestrian environment.

Actions

A. Adopt flexible zoning standards to allow architectural encroachments and encourage greater variety, such as architectural encroachments (porches, stoops, bay windows, etc.) into the minimum front-yard setback.
B. Consider adjusting the setback averaging dimensional standards, where appropriate, to allow reduced front-yard setbacks consistent with the surrounding historic neighborhood development pattern.
C. Adopt Village Center Design Guidelines and formally incorporate in the Town's review process for commercial, mixed-use and multi-family development proposals.
D. Strengthen or establish new standards for buffers, site lighting, location of parking and placement of buildings within land development projects, including mixed-use and multi-family developments.
E. Conduct parcel study to:
   - Evaluate compatibility of R10 and R25 zoning with existing neighborhoods to determine whether zoning should be adjusted or new zones established to better reflect the area's character.
   - Recommend zoning standards that would require homes on "teardown" lots to better reflect neighborhood character.
F. Create a Neighborhoods Map based on original plats and evolution of neighborhoods over time, as means of identifying historic boundaries of neighborhoods.

See the Implementation element for information on implementation schedule, priorities, estimated costs, responsibilities and action types.

Goal HN-3: Continue to comply with the State's 10 percent affordable housing goal through provision of well-integrated and compatible affordable housing.

Objective HN-3.1: Qualify as affordable at least three existing housing units on scattered sites per year by 2020.

Policy HN-3.1.1: Provide financial and administrative support required to implement the "capture existing affordable housing" program.

Policy HN-3.1.2: Engage the Housing Board of Trustees in order to use available funds in the most cost-effective, productive manner.

Actions

A. Fund a revolving fund to support a Housing Trust program to acquire and rehabilitate existing houses in order to qualify the homes as affordable.
B. Formally adopt incentives to capture existing houses affordable to LMI households, such as property tax abatements and funding from the Home Repair Program.
C. Establish specific guidelines for acquiring / qualifying existing houses by Planning Board applicants subject to provisions of mandatory inclusionary zoning, as permitted an "off-site" alternative.

D. Engage a consultant, contract with an outside agency, or establish a part-time position to administer the program. Provide an annual report, from the Housing Board of Trustees, on the status of the program, including the number of LMI houses qualified each year and an analysis of the need for housing programs, such as applications for heating assistance and weatherization.

Objective HN-3.2: Produce affordable housing units at a rate that keeps Barrington on the path toward achieving the 10 percent affordable housing goal by 2035.

Policy HN-3.2.1: Implement actions through study and revisions to land use regulations to achieve the affordable housing goal.

Policy HN-3.2.2: Monitor effectiveness of regulations in producing affordable housing units.

Policy HN-3.2.3: Allow comprehensive permit proposals that provide 50 percent or more affordable housing units to be granted density increases of up to "one step" in the underlying zoning district, provided that the affordable units are deed-restricted for more than thirty (30) years, and the site has adequate infrastructure, including water, sewer, storm-water management and roadways.

Actions

A. Revise Zoning Ordinance to establish one-step density increase for comprehensive permit applications, per Policy HN-3.2.3, above.

B. Work with the State to provide more flexibility in achieving the 10 percent LMI goal, such as:
   - Allowing for more flexibility to qualify accessory apartments as affordable, such as by eliminating the monitoring requirements, in line with federal Fair Housing laws.

See Appendix I for estimates of the number of LMI units to be produced by each of the proposed actions below and previously adopted strategies.

   - Establishing a realistic inclusionary zoning fee in lieu amount sufficient to create units in Barrington.
   - Providing more credit for rental units in calculating a municipality's LMI percentage.
   - Enabling a local rent subsidy program to make rents more affordable for income-qualified households, provided that each household with a subsidy count toward the LMI unit percentage.

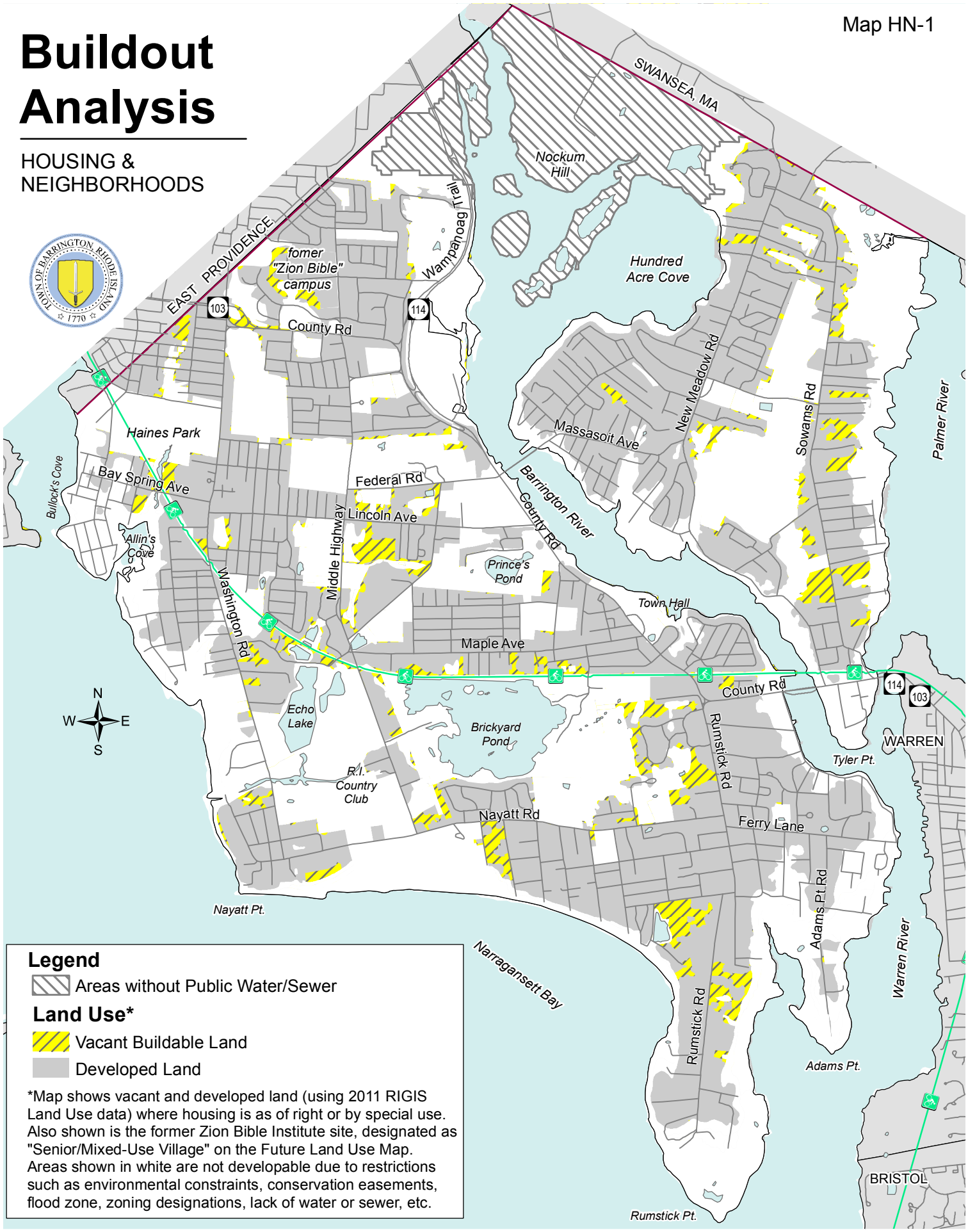
C. Create an illustrated guide illustrating best practices for designing cottage-style housing, accessory apartments and two-family structures.

D. Hold workshops and conduct other public outreach on affordable housing options available in the Zoning Ordinance and Subdivision Regulations.

Buildout Analysis

HOUSING & NEIGHBORHOODS

Map HN-1



Legend

Areas without Public Water/Sewer

Land Use*

Vacant Buildable Land

Developed Land

*Map shows vacant and developed land (using 2011 RIGIS Land Use data) where housing is as of right or by special use. Also shown is the former Zion Bible Institute site, designated as "Senior/Mixed-Use Village" on the Future Land Use Map. Areas shown in white are not developable due to restrictions such as environmental constraints, conservation easements, flood zone, zoning designations, lack of water or sewer, etc.

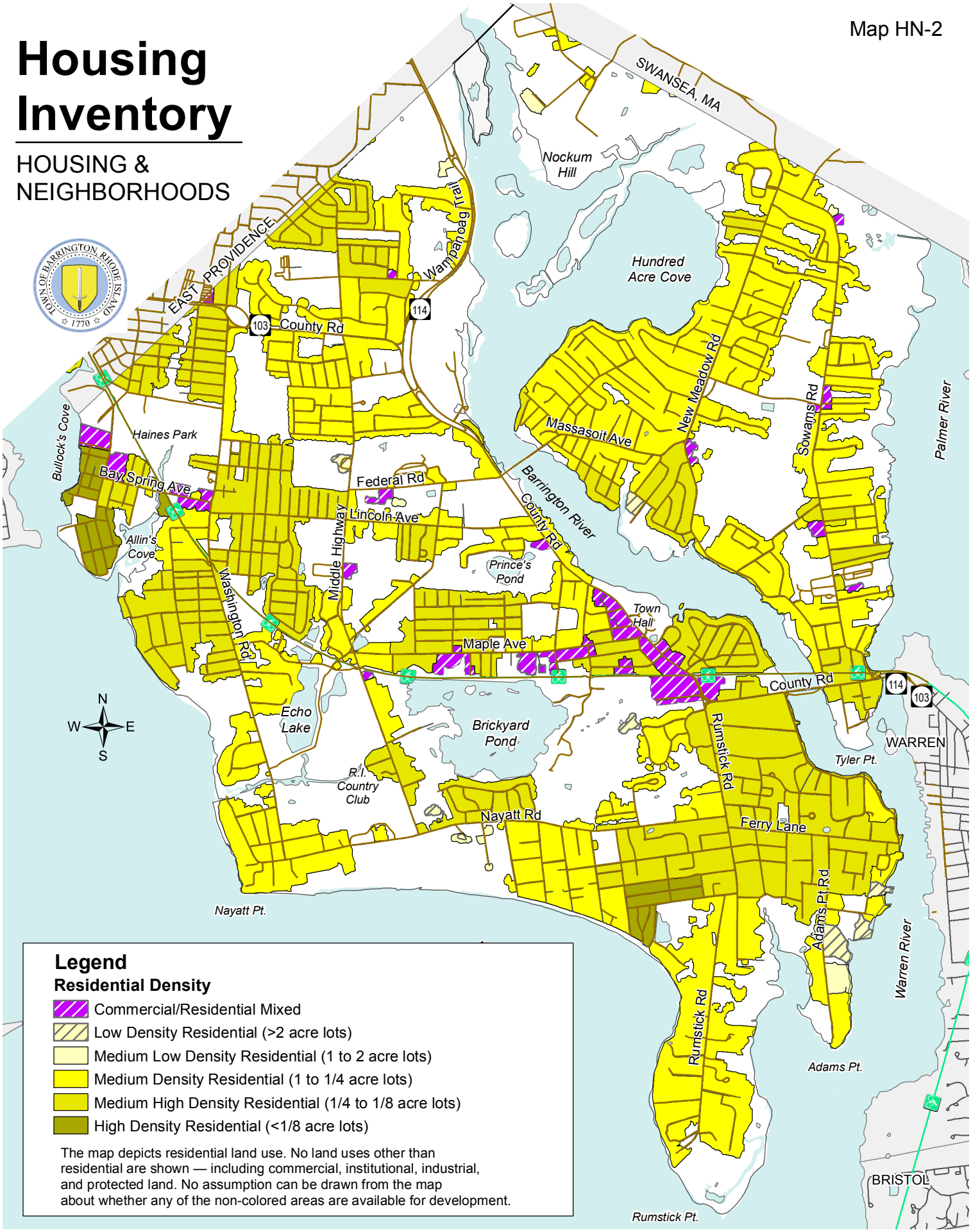
0 4,000 8,000 Feet

SOURCE: Town GIS, RIGIS

Housing Inventory

HOUSING & NEIGHBORHOODS

Map HN-2



Legend

Residential Density

- Commercial/Residential Mixed
- Low Density Residential (>2 acre lots)
- Medium Low Density Residential (1 to 2 acre lots)
- Medium Density Residential (1 to 1/4 acre lots)
- Medium High Density Residential (1/4 to 1/8 acre lots)
- High Density Residential (<1/8 acre lots)

The map depicts residential land use. No land uses other than residential are shown — including commercial, institutional, industrial, and protected land. No assumption can be drawn from the map about whether any of the non-colored areas are available for development.

0 4,000 8,000 Feet

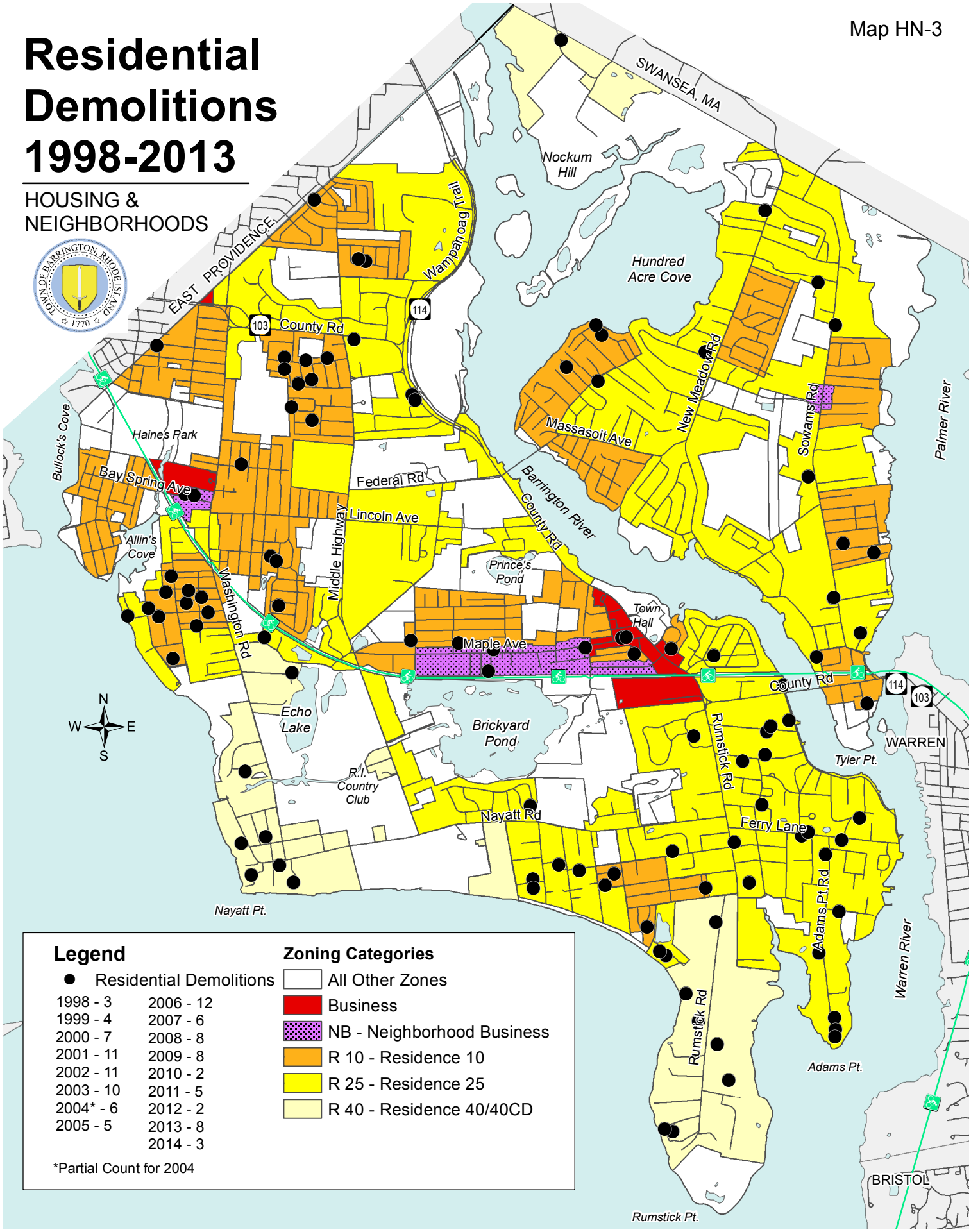
SOURCE: Town GIS, RIGIS (2003 Land Use Data)

Comprehensive Community Plan - 2015 Update / Town of Barrington

Residential Demolitions 1998-2013

HOUSING & NEIGHBORHOODS

Map HN-3



Legend

● Residential Demolitions

1998 - 3	2006 - 12
1999 - 4	2007 - 6
2000 - 7	2008 - 8
2001 - 11	2009 - 8
2002 - 11	2010 - 2
2003 - 10	2011 - 5
2004* - 6	2012 - 2
2005 - 5	2013 - 8
	2014 - 3

*Partial Count for 2004

Zoning Categories

- All Other Zones
- Business
- NB - Neighborhood Business
- R 10 - Residence 10
- R 25 - Residence 25
- R 40 - Residence 40/40CD

0 4,000 8,000 Feet

SOURCE: Town GIS, Building Official's Office

Comprehensive Community Plan - 2015 Update / Town of Barrington

2 ECONOMIC DEVELOPMENT

Overview

Since the mid-1990s, the Town has taken steps toward defining a "Village Center" along the County Road corridor and stretching into Maple Avenue and adjacent mixed-use streets. The Zoning Ordinance now requires buildings to be built near the street, with parking to the side and rear. Commercial signs must be smaller in scale. Less parking, and therefore less pavement, is required for new development. A streetscape improvement project on County Road and a portion of Maple Avenue added granite curbing, decorative street lights, street trees, bus shelters and a "brick" center turn lane.

These changes have helped to restore character to a commercial stretch of County Road that had been an auto-dominated zone typical in suburban communities: parking lots located in front of buildings, signs cluttering views, and sidewalks in disrepair. Today, Barrington's commercial core, while still dependent on automobile traffic, is more walkable and visually appealing. More work is needed, however, to build on this success and help attract investment to the Village Center and Barrington's other smaller commercial districts, in West Barrington and Hampden Meadows.

Existing Conditions

Commercial and Industrial Land Use and Zoning

Barrington's business and industrial areas (see **Map ED-1** and **Table 1** on the following page) include:

- County Road from Hilltop Avenue to Rumstick Road, zoned Business.
- Maple Avenue, with parcels zoned Neighborhood Business and Business within an area extending from County Road west and including portions of Waseca and Anoka Avenues.
- The Bay Spring Avenue-Washington Road area, with parcels zoned Neighborhood Busi-

Examples of commercial / mixed-use buildings built since 2010 (through 2013).

ness, Business and Limited Manufacturing. One of the largest vacant Business- zoned properties, an 8.5-acre former elementary school site, was redeveloped as an affordable housing development (Sweetbriar).

- Sowams Road at Kent Street, zoned Neighborhood Business. This area includes a handful of neighborhood-scale businesses.
- Barrington's three Waterfront Business zones include Tyler Point (marina and restaurant) on the Barrington and Warren Rivers, and the Brewer Cove Haven and Lavin's marinas on Bullock Cove. These areas are fully developed.

The Town has no agricultural zoning districts.

Since 2010, the Town Council has adopted several amendments to the Zoning Map affecting commercially zoned property. The changes included the rezoning of the remaining residentially zoned parcels on Wood Avenue to Neighborhood Business. In addition, a 10-acre environmentally sensitive Town-owned parcel east of the Bayside YMCA was rezoned from Business to Open Space-Passive. The Planning Board initiated these revisions to bring the Zoning Map consistent with the Future Land Use Map in the Comprehensive Plan approved by the State in 2010. Changes to size of commercial zones, resulting from the Zoning Map amendments completed since 2010, are shown in **Table 1**.

Throughout town, there are limited opportunities for commercial expansion in the business zones. Due to the scarcity of vacant land within these districts, new most commercial development will necessitate re-use of existing buildings or redevelopment of infill sites.

Commercial Development Trends

During the 1990s Barrington saw robust commercial development take place, with commercial space increasing by nearly 300,000 square feet, representing an investment of more than $40 million. Much of the development related to the Barrington Shopping Center. Since 2000, there have been no large-scale commercial developments. New commercial and mixed-use buildings have involved redevelopment of infill sites, typically one acre or less in area. **Table 2** on the next page lists new projects built since 2010, which have added about 33,000 square feet of building area totaling $5.9 million in assessed value.

Barrington eating establishments generate approximately $130,000 to $140,000 per year for the Town from the meal tax. New restaurant space added in recent years include one at the new Coastal Commons mixed-use development, and two on Maple Avenue – one replacing a consignment furniture store, the other in a converted residential structure. Other new restaurants opened in town replaced establishments that closed, resulting in no net increase in space.

Industrial Development

The closing of the RI Lace Works in the late 1980s likely signaled the end of manufacturing in Barrington. The 1992 Comprehensive Plan laid the groundwork for the conversion of in-

Table 1: Commercial and Industrial Zoning, 2013

Zone	Description	Acreage		Change: Acres
		2010	2013	
Limited Manufacturing	Vacant site on Allin's Cove	4.8	4.8	0
Waterfront Business	On Bullock Cove, Tyler Point	27.0	27.6	0.6
Business	Village Center, Bay Spring	67.5	57.9	(9.6)
Neighborhood Business	Village Center, Bay Spring, Kent Street	76.9	78.3	1.4

Source: Town GIS parcel data

Table 2: New Commercial/Mixed Use Buildings—2010 to 2013

Description	Location	Zone	Year	Building (SF)	Resid. Units	Land Area (SF)	Parking Spaces	Asssessed Value
Bay Spring Crossing[1]	60 Bay Spring Ave.	NB	2010 (Bldg 2)	12,000	6	40,500	42	$1.97 million
TD Bank	231 County Rd.	B	2010	3,775	0	40,000	30	$1.41 million
AAA Building	280 County Rd.	B	2010	4,500	0	22,000	30	$1.25 million
Coastal Commons	10 and 12 Anoka Ave.	NB	2013	13,050	4	23,500	24	$1.33 million
TOTAL				**33,325**	**10**	**126,000**	**126**	**$5.96 million**

[1] First of two buildings was completed in 2006. The first building is the same size as Building 2. Parking and land area for Building 2 is based on 50 percent of the total on site.

Source: Barrington Tax Assessor

dustrial-zoned properties through recommendations to re-use these sites for senior housing developments—apartments and assisted living facilities. Amendments to the Zoning Ordinance adopted in the mid-1990s permitted Elderly Housing districts to occur in land zoned for commercial or industrial use.

The first project in an "EH" zone was the renovation of the three-story Pilling Chain Mill building in 1996, for the 60-unit Barrington Cove Apartments. At Bay Spring and Narragansett Avenues, the RI Lace Works site was zoned EH. The large building was replaced with the 126-bed Bay Spring Village Assisted Living complex in the late 1990s.

Today, the only industrially zoned land (Limited Manufacturing) remaining in Barrington is a 4.8-acre area to the south of Bay Spring Avenue abutting Allin's Cove. The development potential of the site is unknown. The property is constrained by its proximity to the water and wetlands and floodplain issues, as well as stringent CRMC requirements due to its proximity to Allin's Cove.

Streetscape Improvements

Streetscape improvements completed in the early 2000s have enhanced the appearance of the County Road and Maple Avenue commercial areas. On County Road, from Sullivan Terrace to Rumstick Road, the State Department of Transportation added a center turn lane with stamped "brick" pavers, installed streetlights and granite curbing, constructed new wood bus shelters and reconstructed sidewalks.

The Town has completed streetscape improvements on Maple Avenue, a Town-owned street. To date, sidewalks, granite curbing and streetlights have been installed on the south side of Maple Avenue from County Road to West Street. Sidewalks and other improvements have yet to be installed on the north side of Maple.

In 2014, Town voters approved a $1.6 million bond to extend sidewalks, street trees and other streetscape improvements to Waseca Avenue, Wood Avenue, Maple Avenue and West Street. Engineering on the project began in October 2014, with construction completion expected by November 2015.

Design Review

A development plan review ordinance, first adopted in the mid-1990s (last revised in 2012), requires building design and site plan review of all new commercial development and redevelopment, as well as site plan review of major residential developments. The Town also has modified and strengthened sign regulations during this period. Advance review on behalf

of the Planning Board is performed by the Technical Review Committee.

The results of the Town's review process and design standards are evident within commercial areas where new development has occurred since the mid-1990s, most of it focused on County Road. Setback standards, for example, contribute to a pedestrian-friendly street by requiring buildings to be located close to the road, with minimum setback at 3 feet and a maximum setback at 15 feet.

The Zoning Ordinance also prohibits parking in front of buildings, requires sidewalks and bike racks and other features that make for a more walkable community. In addition, the enforcement of the sign ordinance adopted as part of the 1994 zoning amendments has resulted in signage more appropriate to a pedestrian-scaled area, eliminating over-sized and gaudy commercial signs that had existed for years.

The Town has monitored the effectiveness of regulations in achieving the goals established in

Table 3: Employment by Sector, Barrington and Rhode Island, 2013

	Barrington		Rhode Island Total	
	Average Employment	% of Total	Average Employment	% of Total
Total Private & Government	3,387	100.0%	459,610	100.0%
Total Private Only	2,697	79.6%	399,481	86.9%
Health Care & Social Assistance	779	23.0%	80,395	17.5%
Government	690	20.4%	60,129	13.1%
Retail Trade	295	8.7%	46,157	10.0%
Accommodation & Food Services	293	8.7%	46,349	10.1%
Other services	242	7.1%	17,421	3.8%
Finance & Insurance	237	7.0%	23,989	5.2%
Arts, Entertainment, & Recreation	182	5.4%	8,624	1.9%
Educational Services	152	4.5%	18,118	3.9%
Professional & Technical Services	127	3.7%	21,953	4.8%
Construction	121	3.6%	16,324	3.6%
Admin. Support & Waste Mgmt.	104	3.1%	25,933	5.6%
Manufacturing	47	1.4%	39,988	8.7%
Wholesale Trade	43	1.3%	16,652	3.6%
Real Estate & Rental & Leasing	28	0.8%	5,917	1.3%
Information	19	0.6%	9,003	2.0%
Mining	0	0.0%	201	0.0%
Unclassified Establishments	0	0.0%	67	0.0%
Utilities	0	0.0%	1,060	0.2%
Agriculture, Forestry, Fishing & Hunting	*	*	713	0.2%
Management of Companies & Enterprises	*	*	11,275	2.5%
Transportation & Warehousing	*	*	9,341	2.0%

Source: RI Department of Labor & Training Quarterly Census of U.I.-Covered Employment and Wages — 2nd Quarter, 2013

the Comprehensive Plan. In 2007 and 2012, for example, the Town Council and Planning Board further revised requirements for signage, off-street parking and building and site design to create clearer guidelines and simplify some steps of the review process.

Overall, the aesthetic improvements from projects built in accordance with the regulations and standards established over the past 20 years have helped to provide the village center a distinct character and a definable edge.

Employment

The R.I. Department of Labor and Training provides figures of the total labor force made up by residents, and of employment levels within the community itself, for all cities and towns in the State. As indicated by **Table 3** (previous page) and **Table 4** the bulk of employment within Barrington as of 2012 is in government (654), health care and social assistance (603), retail trade (293) and accommodation and food service (275), similar to the ranking of the largest employment categories statewide.

Since 1982, the largest loss among industry groups has been in the manufacturing sector, which is consistent with national trends. In 1982, there were 325 manufacturing jobs in Barrington; by 1990, the figure declined to 158, and then to just 45 in 2012. The decline in the 1980s was primarily due to the closing in 1990 of the Rhode Island Lace Works, which once provided about 180 jobs in Barrington. There also are fewer retail jobs compared to previous years: 391 in 2006 compared to 293 in 2012, a loss of 98 in just six years.

Employment data reveal the extent Barrington is a bedroom community, with many more working residents in Barrington than there are jobs within

Table 4: Private Sector Employment by Sector—Change (2006 to 2012)

Establishment Employment	2006	2009	2012	Change 2006-12
Total Private & Government	3,133	2,993	2,991	-142
Total Private Only	2,410	2,270	2,338	-72
Government	723	723	654	-69
Health Care & Social Assistance	453	506	603	150
Retail Trade	391	343	293	-98
Accommodation & Food Services	288	265	275	-13
Other Services	280	259	267	-13
Arts, Entertainment, & Recreation	155	166	170	15
Educational Services	124	141	148	24
Professional & Technical Services	108	103	138	30
Construction	218	153	135	-83
Finance & Insurance	87	85	77	-10
Admin. Support & Waste Management	58	60	69	11
Wholesale Trade	84	52	46	-38
Manufacturing	79	51	45	-34
Real Estate & Rent al & Leasing	36	27	27	-9
Information	23	24	17	-6
Transportation & Warehousing	3	2	*	
Agriculture, Forestry, Fishing & Hunting	*	*	*	

Source: RI Department of Labor & Training

Table 5: Labor Force—Barrington, 1990-2013

Year	Total Labor Force	Total Employment	Total Unemployment	Unemployment % Barrington / R.I.
1990	8,306	7,973	333	4.0% / 6.1%
2000	8,465	8,202	263	3.1% / 4.2%
2010	8,427	7,688	739	8.8% / 11.7%
2013	8,216	7,687	529	6.5% / 9.1%

Source: Rhode Island Department of Labor and Training

town. There are 8,216 Barrington residents in the labor pool, as of 2013 (see **Table 5**), compared to 2,991 jobs within town.

The number of Barrington residents who work in town is unknown, but it is clear that the average job within town does not pay enough to cover local housing costs. The Housing Network of Rhode Island states that in 2012, the average private sector wage for a job in town was $36,400. Income needed to pay the average rent of $1,154 per month for a two-bedroom apartment is about $46,100 a year. Almost $98,000 is needed to afford the median house price in 2012 totaling $334,000. (Housing issues, including affordable housing strategies, are discussed in detail in the Housing & Neighborhoods element.)

Table 5 shows statistics on the labor force in Barrington from 1990 to 2013, including totals on employed and unemployed. From 1990 to 2000, Barrington's total labor force increased slightly, coinciding with the town's increase in population. Since 2000, however, the total labor force has dropped to below 1990 levels. In 1990 the labor force represented 52.4 percent of the population; in 2010, the percentage was about 51.7 percent.

In general, the Town's unemployment levels follow the same pattern as the overall state levels of unemployment, although the percentages are lower, indicating that Barrington residents are employed in industries more insulated from downturns in the economy (see Table 5). For 2013, the town's unemployment rate on average was 6.5 percent, 2.6 percentage points lower than the state's. Though higher than recent historical levels, the town's employment numbers have improved significantly since 2010 when unemployment stood at 8.8 percent in Barrington (11.7 percent statewide).

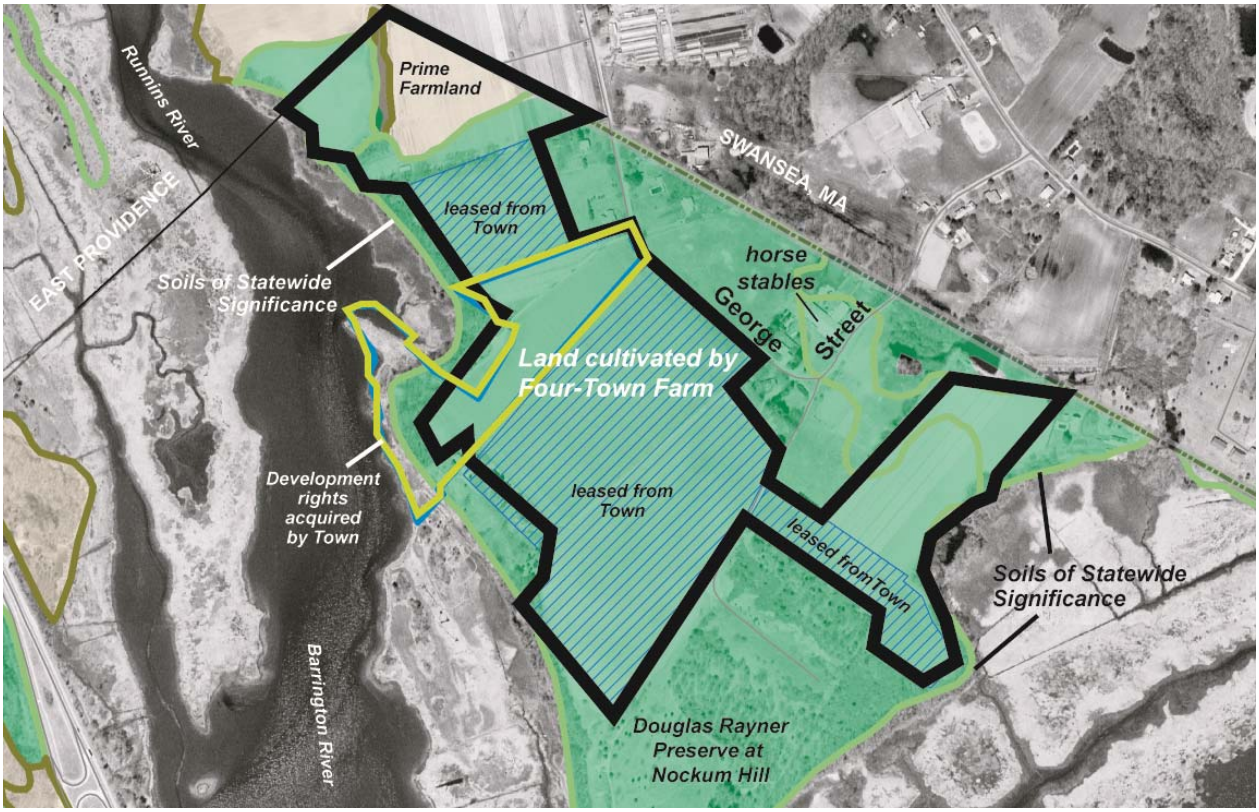
The number of jobs in town compared to the size of the labor force comprised of people who live in Barrington reflects an emphasis of residential development over commercial and industrial growth. In 2006, Barrington, for example, the town had a total private sector employment of 2,410, or 0.28 jobs for every Barrington resident in the labor force. In comparison, within Bristol there were 0.47 private sector jobs for every Bristol resident in the labor force in 2006; the ratio in Warren was 0.61.

This housing-employment imbalance is reflected in commuting patterns from the 2000 census. In Barrington, just 26 percent of those in the labor force went to work in Bristol County (much lower than the figure of 40 percent all of the county's working population). The town's proximity to a major employment center, Providence, which has a much larger economy compared to Bristol County, is likely a factor influencing the high number of out-of-county commuters from Barrington.

Farming Operations

In recent decades, agriculture has comprised a small, and shrinking, share of the labor force in Barrington. According to the Census Bureau, employment in the agriculture sector in the period of 1982 to 2009 has fluctuated in the range of 25 to 33; overall, the share of the total labor

Figure 1: Farmland and Agricultural Soils—George Street Areas



Sources: RIGIS, Town GIS

force has declined from about 1.4 percent in the 1980s to just 0.3 percent in 2009. The data do not specify where those employed in the agricultural sector work, but in Barrington, there is only one area with active farms remaining: the George Street area.

Farms on George Street include Dane Farm—a horse farm—and fields cultivated by Four-Town Farm based next door in Seekonk. (See **Map NCR-5** in the Natural & Cultural Resources element for the location of farms with active cropland in town – Four-Town Farm in the George Street area and Johannis Farm on Sowams Road.)

The Town has partnered with Four-Town Farm with the goal of maintaining farmland in active production—leasing 40 acres in Nockum Hill, and acquiring development rights from Four-Town to ensure additional acreage remains in agricultural use.

Figure 1 depicts land farmed by Four-Town Farm in the George Street area, including land leased from the Town. Also shown in Figure 1 is the parcel where the Town acquired development rights as part of a 20-year lease agreement with Four-Town Farm in the early 1990s. In 2012, the lease of 40 acres adjacent to the Douglas Rayner Preserve was extended another 20 years, expiring on June 30, 2032, in exchange for an annual payment of $10,000 to the Town.

According to RIGIS data, almost all of the land in the George Street area is suitable for farming. About 117 acres – including all of the land actively farmed – are categorized as agricultural soils of statewide importance, and 4.6 acres are considered "prime farmland." The only other active farmland in town — not including community gardens — is the Johannis Farm property on Sowams Road, where about 7.8 acres out of a much larger parcel acquired by the Land Conservation Trust remains in agricultural use under

terms of the property transaction. Long-term, the Johannis Farm fields, which are in the 100-year flood zone, likely will be impacted by sea level rise (see discussion in Natural Hazards element), as coastal wetlands migrate inland due to increased inundation.

Another farm site is the old "Vitullo Farm," an old dairy farm on Wampanoag Trail that was acquired by the Town in the early 2000s. Sections of the property continued to be farmed by the former owner until 2013, under an agreement with the Town. In 2014, that agreement ended and the farm fields nearest the Trail became the site of the Barrington Community Garden, established through a volunteer effort.

Issues and Opportunities

Parking and Infrastructure in Commercial and Mixed-Use Areas

The 2010 Comprehensive Plan identified multiple issues limiting the potential commercial vitality of the Village Center within the blocks adjacent to County Road, including:

- Lack of on-street parking for customers.
- No off-street public parking lots.
- Poor sidewalk connectivity and areas with sidewalks in poor condition.
- Lack of directional signage.
- No crosswalks outside of County Road.

Figure 2: Streetscape Concept—Maple Avenue and West Street

The *Village Center Connectivity Study* included a concept to reconfigure parking at Vienna Bakery to create room for realigned sidewalks, signage and other improvements.

- Use of public sidewalk areas (on Maple Avenue specifically) for parking vehicles and other pedestrian obstructions.

The Town is in the process of addressing many of these issues through a $1.6 million streetscape improvement bond approved by voters in 2014. The request for bond funding was based on streetscape and wayfinding signage concepts in a "Village Center Connectivity Study," completed in 2013 (see **Figure 2** on the previous page). Construction is scheduled for completion by the end of 2015.

While infrastructure in the project area will be improved with the bond project, the condition of infrastructure in other commercially zoned areas is subpar—such as sections of sidewalk on Maple Avenue west of West Street, and within the Kent Street Neighborhood Business district.

Another ongoing issue is a lack of adequate public parking in the Village Center, where public spaces outside the Town Hall/Library are almost nonexistent. The Town will need to identify and secure additional public parking—on-street and off-street—in the Village Center to provide an option to park once and walk to the various establishments—and realize the benefits of the planned streetscape improvements.

As our village center becomes a more attractive place to visit and shop, the Town will need to better manage parking. While much parking is available, it is disjointed and mostly privately owned, causing many visitors to continually jump in and out of their cars to make short trips between stores and to "rove" for parking. The Town should take steps to encourage more "park once and shop" activity in the village area. By clearly designating and directing drivers to convenient parking, we can limit the amount of traffic circulating through town. Encouraging customers to walk and explore our growing village area will also benefit downtown merchants. The Town should pursue the shared use and/or acquisition of existing surface parking lots within the village area and open them up to local shoppers and visitors. Underutilized lots along Wood Street, Waseca and Maple Avenue have the potential to be used in this way and to encourage more pedestrian activity along these local streets.

A measure added to the Zoning Ordinance in 2012, allowing the use of shared parking where spaces can be leased off-site to provide some of the required spaces, has the potential to encourage parking once and walking to multiple destinations. However, this option has not been utilized, and should be re-evaluated to determine whether revisions are needed to encourage its use.

Land Available for Economic Development

Today, as with residentially zoned land, Barrington is approaching build-out of properties zoned for mixed-use and commercial use, as the amount of vacant or under-utilized land zoned for commercial development is in limited supply. Two major parcels zoned Business—the Sweetbriar site and the 10-acre parcel between the YMCA and the Barrington Shopping Center (both discussed previously)—no longer represent opportunities for new commercial or mixed-use development. This leaves a handful of vacant or under-utilized parcels zoned for non-residential development.

Due to the lack of vacant, developable land in the Business and Neighborhood Business zones, future additional non-residential development in town is likely to be in the form of redevelopment within existing commercial zones.

One of the challenges with redevelopment of existing properties in the Maple Avenue and Bay Spring Avenue areas is the proximity of commercially zoned sites to adjacent residential properties within and adjacent to the commercial zones. It is not just the impact of commercial development on residences on Maple Avenue and adjacent areas, but also the fragmentation of business properties along Maple Avenue

which perpetuates the use of the automobile. Efforts to enhance the pedestrian environment of Maple Avenue will be ineffective without greater continuity of the retail district, along with clearly identified and convenient public parking enabling people to park and walk.

Overall, there are few opportunities to expand zoning to permit additional non-residential and mixed-use development in areas not currently zoned Neighborhood Business or Business, without rezoning residential land. One new opportunity area that could support modest non-residential development is the Zion Bible Institute site. (Guidance for the creation of new zoning for the property is included in Appendix II.)

Tourism Opportunities

As a value-added marketing opportunity, tourism is increasingly important to community economic health and diversification. Tourism is recognized as a leading industry in Rhode Island and holds potential for Barrington. Development of tourism would provide additional support for local business. B&Bs can play a major role in encouraging and promoting tourism. In smaller communities B&Bs are an important component of a tourism strategy.

B&Bs are small and flexible enough to gear their facilities to specific visitor interests (outdoor recreational activities, antiques, farming, etc.) In addition Barrington's unique location between Providence and Newport make it an ideal location for visitors. Allowing B&Bs would enable the Town to benefit from increased revenue. Currently Barrington is one of the only municipalities in the state to receive no room tax revenue. Tourists generally also spend money on food and beverages. While this revenue source has grown in recent years, further improvement of the business district along with the inclusion of B&Bs should increase the meal tax revenue for the Town. Another potential benefit of allowing B&Bs is historic preservation. By allowing the creation of income-producing properties, B&B zoning could help to preserve some of the larger historic structures.

Town regulations should try to address neighborhood concerns and at the same time provide regulations that do not unduly hamper or discourage the formation of potentially important local businesses. Some localities have B&B classifications; the most common are: the B&B home (the smallest establishments of two or fewer guest bedrooms), the B&B inn, and the B&B hotel. (**Figure 3** is an example of inclusion of a classification of a B&B in a use table.)

- *B & B Home (limited to 1-2 guests).* Zoning for a home is usually not a problem because owner/operators have a minimal investment, generate a small income, and attract little community attention. Lodging in a B&B home is a personal matter between guests and the host.
- *B & B Inn.* The B&B inn, or mid-sized operation, may be situated in a private home maintained by an on-premise owner; yet they are, to a degree, small home-based businesses. The owners intend to recoup some investment costs and generate income and profits. They may see a B&B as a way to maintain and possibly restore an older historic structure. State codes should prevail here.
- *B& B Hotel.* The B&B hotel is generally not a problem because its commercial nature requires that it be located only in areas with

Figure 3: Sample Zoning Town of Orleans

RESIDENTIAL	R	RB	LB	GB	VC[5]	I	CD[6]	SC	MB
The renting or leasing of not more than 2 rooms, nor to more than 4 persons, by a family resident in a dwelling unit [ATM 5/8/84 Article 8]	P	P	P	P	P	O	O	O	P

more traffic than is characteristic of a residential neighborhood. Also, B&B hotels usually are required to meet all regulations for a food and lodging operation.

Need for Improved Design Guidelines

In recent years, the addition of sidewalks, streetlights, curbing, bus shelters and other improvements on County Road have helped improve pedestrian circulation. The reconfiguration of the Barrington Shopping Center also was a major milestone in providing a visually appealing and walkable commercial center. Infill projects such as the new TD Bank on an old auto dealership lot and the Coastal Commons mixed-use buildings at Anoka and Wood Avenues—all buildings built close to the sidewalk edge — have also improved the visual appeal and pedestrian-friendliness of the area.

The Zoning Ordinance and Village Guidelines (drafted in the mid-1990s to support the objectives of the Zoning Ordinance's design review standards) have helped to promote more pedestrian-friendly projects. The Zoning Ordinance, however, is most effective as a tool to discourage development the Town does not want—such as buildings with large parking lots in front. Standards could be written to more explicitly encourage quality design in keeping with the Town's vision for a "village center." For example, illustrated design guidelines is a common tool used to clearly state the Town's objectives for building and site design, such as building scale and orientation to the street, signage and awnings, site circulation, landscaping and public amenities (benches, street lights, bike racks). Other strategies are available, including form-based zoning that stresses design over use.

Promoting the Local Economy

As discussed previously, the employment figures for Barrington show an overall decline of 142 jobs within town from 2006 to 2012 (see Table 4 on Page 29). This period includes the recession of 2007-2009, when unemployment in Rhode Island topped 10 percent. The 2012 job numbers show a rebound in private sector employment in town in the three years after 2009, though those gains were offset by a loss in government jobs. The health care sector has seen the largest growth in employment—increasing by 150 jobs, or 33 percent, from 2006 to 2012. Sectors where employment declined by 25 percent or more during this period include retail (a loss of 98 local jobs), construction (83) wholesale trade (38) and manufacturing (34).

Organizations such as the Barrington Business Association have worked to promote businesses in town, such as through new banners on the decorative light poles on County Road and Maple Avenue. Efforts to improve the aesthetics, infrastructure and signage within the Village Center could help attract new commercial development as well as draw more people to the area. Additional steps to strengthen the retail and the accommodation/food services sectors—critical for promoting a walkable retail environment—will require further study, including working and/or consulting with the Business Association, the East Bay Chamber of Commerce and other similar organizations and agencies.

An issue that should be evaluated is the potential impact on local businesses of mobile businesses. Food trucks, for example, have been operating in private parking lots and at public events. The Town also has plans to provide space for food trucks at the planned park at "Police Cove" to help attract users to the public space.

Evolving Workplace

Changes in the way Americans work and conduct business since the 1990s have been significant. Professional & Technical Services and General Services are the two leading private employment sectors (followed by Construction, Wholesale Trade and Health Care) and make up 30 percent of all private sector employment.
The rise in telecommuting and knowledge and

service based industries require that Barrington refocus its economic development activities to encourage services and activities that support these populations. As the town's population ages, the number that work part-time or in a consulting capacity will only increase. People working from home not only need services, but a sense of community to support their activities. Town and neighborhood centers can support gathering places that can allow for networking and ease the isolation of working from home.

In Barrington, the percentage of workers working from home is nearly double the percentage for all of Rhode Island. In 2000, approximately 355 people worked from home in Barrington, or 4.5 percent of the total workforce (7,805). This represents a 70 percent increase in home-based workers in town. Statewide, the change was less dramatic. In 2000, 2.2 percent of all workers worked from home, compared to 2.1 percent in 1990. The growth in home-based workers in town is consistent with national trends. Census data reveal 4.2 million people nationwide worked at home in 2000, up from 3.4 million in 1990—a 23 percent increase.

Bay Spring Avenue—Zoning

Bay Spring Avenue is a densely developed mixed-use area in West Barrington. The street, from Washington Road to Narragansett Avenue, has been the focal point of some of the largest development projects in Barrington. These include the conversion of the Pilling Chain Mill in 1996 from an industrial use to 60 senior apartments (Barrington Cove Apartments); the redevelopment of the R.I. Lace Works site at Bay Spring Avenue and Narragansett Avenue into a 126-bed assisted living facility; and the development of Sweetbriar—the 50-unit affordable housing development—was built in 2010 on what was the largest remaining vacant commercially zoned parcel in the area.

Bay Spring Avenue features a mix of uses from Washington Road to Narragansett Avenue – including two vacant parcels previously cited – the Business-zoned site north of Bay Spring Avenue east of the bike path, and the parcel south of the street abutting Allin's Cove, zoned Limited Manufacturing and Residence 10. Within the Residence 10 zone on Bay Spring Avenue, west of the bike path to Narragansett Avenue, there are several legal nonconforming commercial uses, including an auto repair garage and a commercial building at Lake Avenue.

Further study is needed regarding an issue identified by the Planning Board, specifically the potential to allow for a mix of small-scale, neighborhood-oriented uses and different types of housing in Bay Spring.

Limited Manufacturing Zone—Status

Another question is the future use of the Limited Manufacturing-zoned parcels on Allin's Cove, the last area in Barrington zoned for industrial use. Two of the three parcels in the LM zone have non-industrial uses: a house on a 19,800-square-foot parcel on Bay Spring Avenue, and a portion of a cemetery to the immediate west of the house. The largest, a vacant 242,000-square-foot parcel on Allin's Cove (about a third of which is zoned Residence 10), cannot be fully developed due to coastal setback requirements and possibly other constraints.

The Zoning Ordinance permits a wide range of uses within the LM zone, including offices, restaurants, and boatyards. Housing and retail are two uses not permitted within the LM zone. However, the Zoning Ordinance allows for the creation of an Elderly Housing district in the LM zone, which was done to permit the development of the Barrington Cove Apartments and the Bay Spring Assisted Living facility. Conversion of the property on Allin's Cove to Elderly Housing would eliminate the last vestige of Light Manufacturing zoning in town.

Supporting Local Farms

Town leases at Nockum Hill/George Street have helped maintain a farming presence in town. The farms preserve community character in rural areas, helping limit the spread of development to the outskirts of town. Their viability also brings benefits supported by the burgeoning "local foods" movement. Specifically, the farm products produced and sold locally provides an alternative to purchasing food that often is shipped long distances. In short, local farms promote a more sustainable community.

Extending the leases allowing farming on Town land in the George Street area locations is a matter of policy. There is greater uncertainty as to the long-term viability of farming on private property, in particular in the northeast corner of Barrington near Four-Town Farm, an area that lacks city water and sewer. However, pressure to develop housing in this area, utilizing well water and septic tanks, will grow as the remaining "in-town" parcels fill in with development.

The Town has taken steps to create opportunities for agriculture, though on a limited scale. In 2014, volunteers established a community garden on the former "Vitullo Farm" property on Wampanoag Trail. The Town was examining the potential to designate two areas at the site as leased farmland, for use by an organic farm or an orchard.

The Town has also permitted farmer's markets in recent years through the special use permit process, subject to Zoning Board of Review approval. The market at the Congregational Church on County Road at Massasoit Avenue, established with the past five years, attracts a variety of vendors. New opportunities could also arise from the kitchen incubator in the neighboring town of Warren, Hope & Main, which could increase the demand for farmer's markets in Barrington.

Goals, Objectives, Policies and Actions

Goal ED-1: Continue shift from an auto-dependent, suburban shopping center form of development toward walkable retail zones in the Village Center and neighborhood business districts.

Policy ED-1.1.1: Support "walkable retail" development in the commercial/mixed-use zones.

Policy ED-1.1.2: Invest in infrastructure needed to incentivize businesses to locate in the Business and Neighborhood Business zones.

Policy ED-1.1.3: Promote well-designed, compatible mixed-use and commercial development, enhancing public spaces and expanding multi-modal access.

Actions

A. Implement recommendations of the 2014 Connectivity Plan to create a user-friendly commercial district with new sidewalks, street trees, directional signage, crosswalks and other enhancements.
B. Extend wayfinding signage and streetscape concepts to commercial districts outside the Village Center.
C. Adopt revisions to Land Development & Subdivision Regulations to add design guidelines to the review process.

Goal ED-2: Better manage parking in commercial areas to support economic development and to make these districts more attractive places to visit and shop.

Objective ED-2.1: Secure 30 to 40 additional on– and off-street public parking spaces within the Village Center by 2020.

Policy ED-2.1.1. Provide public parking in strategic locations within commercial areas and explore creative strategies to balance need for off-street parking and a walkable retail environment.

Policy ED-2.1.2: Support parking management policies that encourage drivers to "park once" in the village areas, reducing short trips between stores and to reduce traffic activity in downtown.

Policy ED-2.1.3: Limit encroachment of on-street parking for businesses into residential zones.

Actions

A. Conduct a parking study for the Village Center that includes an inventory of existing parking and provides recommendations on the following:
   - Managing existing on and off-street parking and improving the effectiveness of the Town's existing shared parking options to make better use of existing parking capacity.
   - Identifying new sites for public parking, both on-street and off-street.
   - Establishing a funding mechanism to finance public parking lot site acquisition, development and operations.
   - Establishing incentives (e.g. public snow removal, etc.) to private lot owners willing to accommodate public use.
   - Establishing a menu of potential parking-in-lieu options such as provision of bicycle facilities or payment into a public parking fund, to allow developers to opt out of providing a portion of the required off-street parking.
   - Modifying parking requirements in the Zoning Ordinance to regulate maximum as well as minimum number of parking spaces, and to encourage shared parking where differences in peak hour demand allows.

See the Implementation element for information on implementation schedule, priorities, estimated costs, responsibilities and action types.

B. Highlight on-street parking in desired locations using painted markings and signage to outline spaces.
C. Direct the Town Manager to negotiate with private owners and develop public/private partnerships to allow "public" parking in private downtown lots to encourage visitors to park once and walk in downtown area. If negotiation is unsuccessful, determine if potential purchase of lots would be feasible (e.g. underutilized private lots along Maple Avenue).
D. Update village center signage and mapping to direct drivers to new "public" parking lots to "park once" for local shopping trips. [See also Circulation Goal C-2, Action A]
E. Develop criteria and Town-wide policy regulating establishment of on-street parking on residential streets and in commercial/ mixed use areas.

Goal ED-3: Expand the non-residential tax base while preserving community character, with an emphasis on infill development and building re-use over expansion of commercial zoning.

Objective ED-3.1: Adopt by 2017 zoning and development standards for a broader table of non-residential uses that are compatible with the community.

Policy ED-3.1.1: Encourage appropriate neighborhood-scale uses.

Actions

A. Allow limited non-residential uses within a "Senior Residential Village" zone, as recom-

mended for the Zion Bible Institute property, per Developer Guidance (Appendix II); establishment of the new zone is subject to application by the property owner.

In establishing the new zoning district, the Town shall include the following:

- Zoning and design standards, such as design guidelines or form-based zoning, for promoting a mix of uses of a scale and location that avoids impacting adjacent neighborhoods.
- Standards requiring non-residential development in Belton Court to respect the historic qualities of the building and grounds.

B. Examine development standards for Business and Neighborhood Business districts in terms of limiting impacts (such as noise, lighting, stormwater runoff) of development on adjacent residential zones. [See also Housing & Neighborhoods Goal HN-2, Actions C and D]

C. Evaluate adding bed and breakfast inns as a permitted or special use in residential zones, with standards to include location, parking and related accessory uses.

Goal ED-4. Strengthen the Town's commercial base with a focus on promoting existing local businesses and economic sustainability.

Policy ED-4.1.1. Work toward productive working relationship between the Town and the local business community.

Actions

A. Form a task force consisting of residents and local business owners to:
   - Investigate and evaluate strategies for developing a sustainable, locally owned and run economy.
   - Provide a supportive community and networking opportunities for the growing number of business people who work either full-time or part-time from their homes.
   - Increase awareness of business development opportunities in addition to retail activity.
   - Evaluate impacts of and recommend policy related to food trucks and other mobile business activity.

B. Support efforts of the Business Association to promote the district through a banner system, maps and other "marketing" activities.

C. Identify restrictions in the use table and other regulations in Zoning Ordinance that act as barriers to home-based businesses and necessary support services; revise and/or eliminate regulations that are overly restrictive, while protecting neighborhoods from adverse impacts.

D. Investigate potential space in public buildings that could help support home-based businesses, such as common use meeting space.

E. Conduct study of options, such as zoning ordinance amendments, to permit uses that encourage the provision of services and amenities that will support creative and knowledge based businesses and consulting activity, including the expansion of live-work opportunities.

F. Conduct market study evaluating retail and office environment in the Neighborhood Business and Business zones, including an evaluation of existing commercial space.

Goal ED-5: Promote desired commercial activities in mixed-use areas.

Policy ED-5.1.1: Support economic development objectives in strategic areas, including the Neighborhood Business zone near County Road and on Bay Spring Avenue. Community input will be needed to determine the type of development desired for these areas, if different than existing zoning.

Actions

A. Evaluate zoning strategies to promote a more cohesive retail environment in the Village Center. This could include creation of a new zoning district, modifying the Neighborhood Business or Business zone.

B. Complete a parcel/zoning study of the Bay Spring area to identify options to promote the type of economic development desired by the community in the area. The study should address the following:

- An evaluation of table of uses pertaining to the Light Manufacturing zone, taking into consideration environmental constraints and neighborhood impacts.
- The feasibility of encouraging "live-work" units, where the business operator lives above first-floor office or retail space, in the Bay Spring Avenue area from Narragansett Avenue to Washington Road.

Goal ED-6: Support agriculture as a vital component of the local economy.

Policy ED-6.1.1: Support farming as a use within historically farmed areas of Barrington.

Policy ED-6.1.2: Work with community partners to promote local agricultural products.

Actions

A. Evaluate whether revisions to restrictions in the Zoning Ordinance are needed related to agricultural uses, to include uses such as farms, farm stands and farmer's markets.

B. Revise Zoning Map to establish agricultural zoning districts where appropriate, in areas with historic agricultural use (including George Street) to include performance standards.

C. Evaluate Town-owned open space formerly used for farming for opportunities to lease portions to organic farming operations on a limited scale.

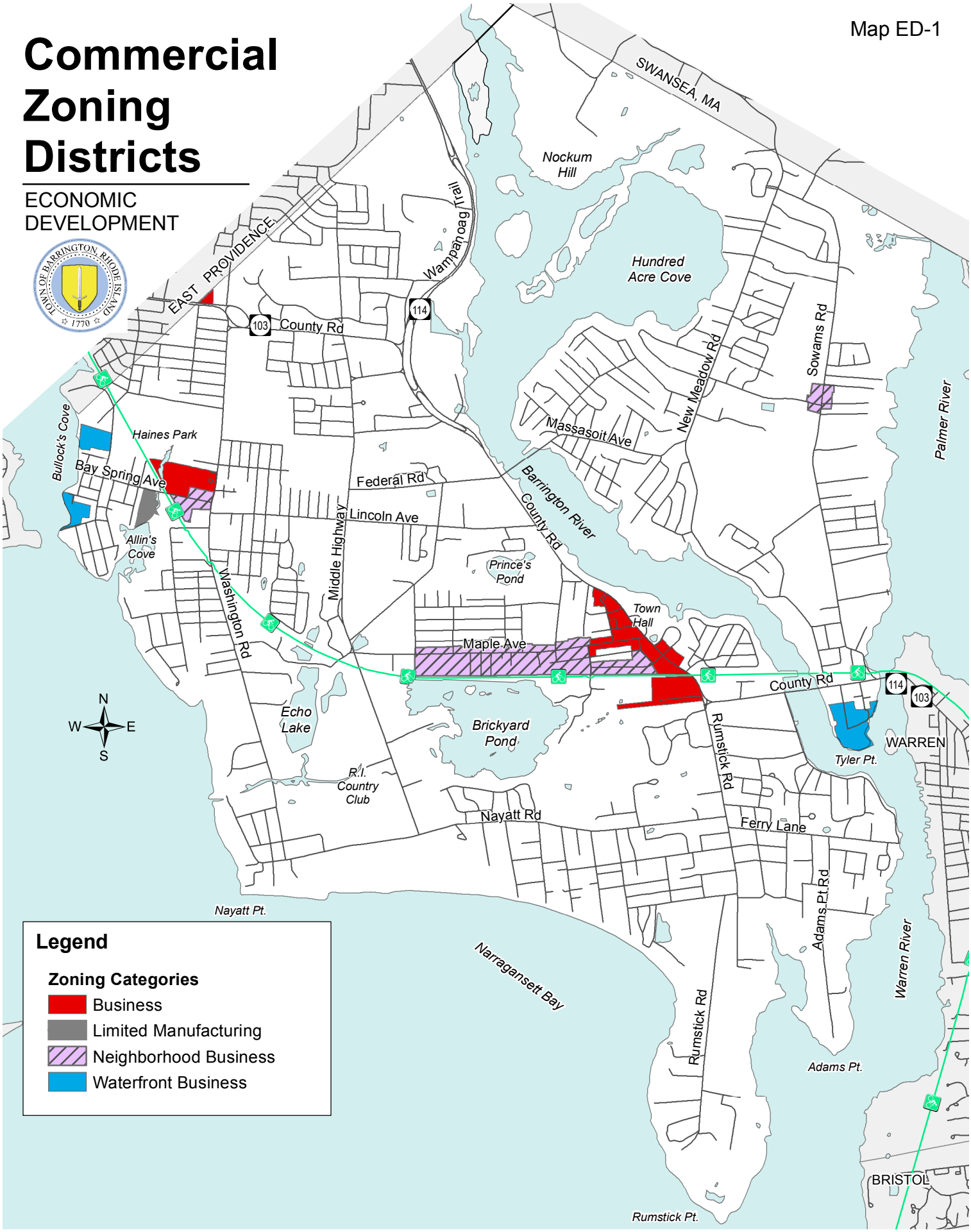
D. Continue to develop the community garden at the former Vitullo Farm site.

E. Review and revise local purchasing requirements to require the purchase of regionally produced foods when possible.

Commercial Zoning Districts

ECONOMIC DEVELOPMENT

Map ED-1



0 4,000 8,000 Feet

SOURCE: Town GIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

3 CIRCULATION

Overview

Circulation – or our community's streets, bicycle and pedestrian facilities and available public transit services – has a profound influence on mobility and transportation choices, in turn impacting quality of life, how land is used, air quality and other aspects of the environment, community character and land use, even people's health.

As a low-density suburban community lacking a major employment center, Barrington will likely remain highly dependent on the automobile for the foreseeable future. The Town, though, has had success moving toward a more balanced – and more sustainable – circulation system, as evidenced by the following:

- The popularity of the East Bay Bike Path, which passes through the heart of town and provides access to East Providence and downtown Providence to the north and Warren and Bristol to the south.
- The heavy utilization of the RIPTA Park and Ride lot at the Barrington Congregational Church, one of the busiest park and ride lots in the State.
- The improved pedestrian environment resulting from the recent extension and reconstruction of sidewalks along major roads, including in the downtown commercial area and near schools as part of the Safe Routes to School program.

The challenge now is to encourage more biking, walking and riding the bus — to improve mobility options and quality of life for our residents and to reduce auto-related impacts.

Existing Conditions

Transportation Choices

Census data show Barrington's reliance on the automobile, with nearly 83 percent of all commuters driving to work alone, plus another 6.4 percent who carpool (see **Table 1**, next page).

Sidewalk on Kent Street (2012) being built as part of a Safe Routes to School project for Hampden Meadows School

Table 1: Means of Transportation (Workers 16 and Over)

	2000 Census		2008-12 ACS*		Change: 2000 to 2012	
	Number	Percent	Number	Percent	Change	%Change
Total:	7,805	100.0%	7,513	100.0%	(292)	-3.7%
Car, truck, or van:	7,147	91.6%	6,598	87.8%	(549)	-7.7%
- Drove alone	6,621	84.8%	6,118	81.4%	(503)	-7.6%
- Carpooled	526	6.7%	480	6.4%	(46)	-8.7%
Public transportation	178	2.3%	142	1.9%	(36)	-20.2%
Walked	64	0.8%	163	2.2%	99	154.7%
Other means	61	0.8%	60	0.8%	(1)	-1.6%
Worked at home	355	4.5%	550	7.3%	195	54.9%
Mean Travel Time to Work (minutes)	23.6	--	25.2	--	1.6	6.8%

*American Community Survey, 2008-12

Just 1.9 percent regularly use public transportation. The mean commute time to work has grown by about 1.5 minutes since 2000, to 25.2 minutes today. About 1,100 (15 percent) work outside Rhode Island—a number influenced by Barrington's proximity to Massachusetts.

Increasingly, though, many Barrington residents are choosing to work close to home, supported by workplace telecommuting policies or operating a home-based business. Of the 7,513 residents in the workforce, 28 percent work in Barrington, Warren or Bristol. About 7.3 percent of workers have a very short commute—they work from home. This number has grown significantly since 2000, when only 4.5 percent of the working population worked from home.

A smaller number live close enough to work to walk (2.2 percent today compared to 0.8 percent in 2000). With more residents living and working locally, Barrington has an opportunity to further increase the share of local trips made by walking and biking within our community.

Existing Transportation Systems

Roads and Bridges

Barrington has approximately 110 miles of State and Town-maintained roadways (see **Table 2**). Barrington's major artery is Route 114/103, a heavily traveled state-owned roadway running north-south through Barrington and linking it with other East Bay communities (see **Map C-1**). This is the only direct route connecting Barrington with the neighboring community of Warren.

At the northern end of town, Route 114/103 splits at the Wampanoag Trail, where Route 103 becomes an east-west route connecting to East Providence at Willett Avenue. Route 114 continues north as the major route for motorists traveling to other points in East Providence, Seekonk, Providence or beyond.

Table 2: Classification of Barrington Roads

Type	Miles	% of Total
Other Freeway/Expressway	2.34	2.1%
Principal Arterial	4.42	4.0%
Minor Arterial	7.49	6.8%
Major Arterial	13.59	12.4%
Local*	82.06	74.7%
Total	**109.90**	**100%**

*Estimate based on local GIS data

Sources: RIDOT, Town GIS data (for local roads total)

Table 3: Traffic Counts—Annual Average Daily Traffic (AADT)

Road	Segment	AADT 1988	AADT 2000	AADT 2013
RI 114 Wampanoag	North of RI 103 County Rd		25,400	27,700
RI 114/103 County Rd	South of Maple Ave	21,000	22,800	22,500
RI 114/103 County Rd	Between Rumstick & Lincoln Av		18,900	20,600
RI 114/103 County Rd	Between Mathewson & Sowams Rd		18,400	20,000
RI 114/103 County Rd	Just west of Mathewson Road			19,800
RI 103 County Rd	West of Hemlock		10,100	12,500
Massasoit Ave	East of RI 114, at bridge		8,800	
Rumstick Rd	Between Nayatt & County Rd		8,400	
Maple Avenue	Between Middle Hwy and Princess Hill Rd			6,100
New Meadow Rd	Between Sowams & RI/Mass State Ln		5,700	
New Meadow Rd	Between Christine & Briarwood	3,650	4,300	5,600
Middle Hwy	Between County & Old County Rd	5,500	6,000	4,300
Nayatt Rd	Between Rumstick & Terrace	2,850	3,300	
Washington Rd	Between County Rd & Crown Av		4,100	3,000
Lincoln Avenue	Between College Lane & Edgewood			2,400
New Meadow Rd	Between Massasoit & Linden Rd		3,700	2,200
Sowams Rd	Between Christine & Briarwood	2,500	3,000	2,200
Rumstick Rd	100 ft south of Highland Ave			2,000
Washington Rd	Between North Lake & S Lake Rd	1,850	1,600	1,900
Middle Highway	Between College Ln & Edgewood		1,800	
George Street	At the RI/MA state line			400

Source: RIDOT

Other State-owned and maintained facilities in town include: Middle Highway, Washington Road, Nayatt Road, New Meadow Road and Primrose Hill Road. The State also owns and maintains the three primary bridges in town: the Massasoit Avenue Bridge, and the Barrington River and Warren River Bridges. The majority of other roadways are owned and maintained by the town, with a small number of remaining streets privately owned.

Traffic Data

In general, traffic volumes have held steady or grown slightly since the late 1980s, with some minor declines in recent traffic levels assumed to be attributable to the recent recession. Annual average daily traffic (AADT) for County Road in the vicinity of the commercial district increased only slightly between counts taken in 1988 and 2004 to 2008, when the AADT south of Maple Avenue totaled 22,100. Counts taken at other locations in Barrington are shown in **Table 3** and **Map C-2**.

Recent & Planned Roadway Improvements

The County Road enhancement project, completed by RIDOT in 2000, dramatically improved the appearance of the Route 114 commercial district from Sullivan Terrace to Rumstick Road. The project included widening of the road, and installation of granite curbs, a center turn lane with faux brick pavers, streetlights, landscaping, bus shelters, sidewalks and an improved bike trail crossing. Circulation

Table 4 – Recent & Planned Bicycle Facility Improvements

Name of Project	Description	Date Completed / Planned
Police Cove Park Bike Connector	Paved connection from County Road north to the bike path, funded through the Federal Congestion Mitigation and Air Quality Improvement Program.	2006
Waseca Street Bike Connector	A short connector built to connect the East Bay Bike Path to Waseca and Wood Streets opposite the Barrington Shopping Center.	2000
Kent Street Bike Lanes	First in-street bike lanes striped in town added to Kent Street, from New Meadow Road to Sowams Road (0.5 miles). Funding from Safe Routes to School (SRTS) grant for Hampden Meadows School.	2012
Bike Racks	Bike racks installed at Hampden Meadows with SRTS grant.	2012
Federal Road Bike Lane	A new sidewalk and off-road bike lane would be constructed between County Road and Middle Highway. The TIP project has not moved beyond the conceptual design phase.	TBD
Bike Racks	New bike racks at the Primrose and Middle schools, funded through a Safe Routes to Schools.	2014 or 2015
Wood Street Bike Connector	Multi-purpose bike/pedestrian connector on east side of Wood Avenue, along with wayfinding and directional signage along the bike path. Concept in Barrington Village Connectivity Study	TBD
Bike bridge reconstruction	The two East Bay Bike Path bridges over Barrington and Warren Rivers programmed for reconstruction by RIDOT.	Expected to start in 2016

Source: Town of Barrington

within the Barrington Shopping Center was improved to coordinate with both the road reconstruction and upgrading of the center.

RIDOT also replaced guardrails on Route 114 north of Massasoit Avenue, which helped enhance safety conditions along this major roadway into and out of Barrington.

In 2004, RIDOT resurfaced Sowams and New Meadow Roads, improving the two main north-south routes in the Hampden Meadows neighborhood. This project also reconstructed sidewalks along portions of both roads, including in the vicinity of Hampden Meadows and Sowams Schools.

The Barrington and Warren River Bridges – RIDOT bridge replacement projects – opened to traffic in 2009 after years of construction. The third of Barrington's three major bridges, the Massasoit Bridge ("White Church Bridge"), is undergoing reconstruction today. Since any shutdown of this link could have serious consequences in terms of traffic congestion and access for emergency vehicles, provisions to maintain vehicular access have been made throughout the construction project.

The new bridge, with wide shoulders and sidewalks on both sides, will improve a critical pedestrian and bicycle connection across the Barrington River, providing access to the park and ride lot at the Congregational Church as well as a new sidewalk and bike path planned for Federal Road from Upland Way to Middle Highway.

Future desired improvements on state-owned roadways must be programmed in the statewide Transportation Improvement Plan (TIP). Today, three Barrington roadway projects are programmed into the TIP:

- Reconstruction of Nayatt Road, from Rumstick Road to Washington Road
- Intersection safety improvements at Middle Highway and South Lake Drive
- Intersection safety improvements at Middle Highway and County Road

The Town has made significant recent progress on improving local roads utilizing a $1 million bond for street, sidewalk and drainage improvements approved by voters in 2010, as well as another $4 million bond authorization for similar efforts approved at the 2012 financial town meeting.

Bikeway System

Constructed on the bed of a deactivated rail line as an alternative transportation system, the East Bay Bicycle Path ties together Bristol, Warren, Barrington and East Providence, as well as Providence via the I-195 bridge. Many types of users frequent the bike path -- walkers, joggers, bicyclists and others – including a number of commuters. The Rails to Trails Conservancy once ranked the East Bay Bike Path as the fifth-busiest rail-trail in the country with 1.1 million annual trail users, according to RIDOT. The bike trail is owned by RIDOT and maintained by the RI Department of Environmental Management.

In Barrington, the Bike Path is centrally located (see Map C-1) and directly connects local neighborhoods with a range of destinations including Haines State Park, Bicknell Park, the Bayside Y and Veterans Park, and the downtown Barrington and Bay Spring Village areas.

Recent & Planned Bikeway Improvements

The Town has successfully worked to capitalize on the presence of the Bike Path, particularly as it crosses through the downtown village area. Recent and planned bike-related improvements, typically implemented as part of other larger projects, are shown in **Table 4** on the previous page.

Sidewalk System

Barrington presently has approximately 17 miles of sidewalks along public streets. As shown in **Map C-3**, the sidewalks are primarily along major thoroughfares and in the vicinity of the schools, commercial areas, and the government center.

The Town requires sidewalks to be included in new projects within commercial areas and in subdivisions located in close proximity to schools. In 2012, the Town revised the Zoning Ordinance to allow the Planning Board to require a payment-in-lieu of providing sidewalks to provide funding for off-site sidewalk improvements, in cases where requiring a sidewalk is not warranted.

Recent & Planned Sidewalk Improvements

Recent projects have resulted in an improved sidewalk system. Some, such as the County Road and Maple Avenue projects, were constructed to improve safety and to enhance the streetscape in mixed-use commercial areas. Other improvements, as shown in **Table 5** on the next page, have been identified as part of the statewide highway program or as part of ongoing Safe Routes to School studies. As recommended in the recent *Village Improvement Study* (2014), the town is planning to construct new sidewalks and make pedestrian safety improvements on additional village streets.

Public Transportation

While the East Bay Bike Path conceivably could be used for commuter rail in the future, the only present (and immediately foreseeable) means of public transit serving Barrington remains the R.I. Public Transit Authority (RIPTA) bus service. Senior Services also offers transportation to residents aged 60 and above.

RIPTA's Route 60 serves Route 114 in Barrington as it travels between Providence and Newport, and is one of RIPTA's most successful bus routes. There are about 14 bus stops located between Massasoit Avenue and the

Warren Bridge. There are also a number of stops on Route 114 north of Massasoit, although recently installed guardrails make it difficult for bus riders to cross this highway. Bus shelters are located at the White Church, East Bay Mental Health Center, Police Cove and just north of Town Hall. Route 61X provides an additional three bus trips each day.

There are two park-and-ride commuter lots in Barrington, a 95-space lot at the "White Church" (Barrington Congregational Church) and a 20-space lot at Police Cove Park by the Barrington River bridge. The town owns the Police Cove lot, while the church allows for use of their privately owned parking. The White Church lot is often at 100 percent capac-

Table 5 – Recent & Planned Sidewalk Improvements

Name of Project	Description	Date Completed / Planned
Recently Completed Sidewalk Improvements		
County Road Improvements	Reconstruction of sidewalks on both sides of County Road as part of RIDOT project.	1999
New Meadow/Sowams Roads	Reconstruction of sidewalks on New Meadow Road and portions of Sowams Road, as part of RIDOT repaving projects.	
Maple Avenue	Reconstruction of sidewalks on south side of Maple Avenue from County Road to West Street with new curbs and streetlights.	
Kent Street	Construction of new sidewalk on south side of Kent Street, from New Meadow Road to Sowams Road, funded through a federal Safe Routes to School (SRTS) grant.	2007
Subdivisions and commercial/mixed-use construction	Sidewalks also created in recent years as part of new subdivisions/land development projects, including Sweetbriar Road, commercial projects on Wood/Waseca Avenue and on County Road/Markwood Drive.	2010-2013
Planned Sidewalk Improvements		
Middle Highway/ Barrington Middle School sidewalks	About 900 feet of new sidewalk leading south from Seven Oaks Drive to East Bay Bike Path to be constructed with funding from SRTS program.	2015 or 2016
Middle Highway/Primrose School sidewalks	Sidewalks between Sherwood Drive and St. Andrew's Farm park on Middle Highway to be built or reconstructed with SRTS funding.	2015 or 2016
Massasoit Avenue	New sidewalk programmed as "high-priority" in statewide TIP, to close sidewalk gap between Martin and Arvin Avenues. This would provide a continuous sidewalk from New Meadow Road across the White Church Bridge to County Road – an important pedestrian link to the high school and Village Center.	TBD
Federal Road	New sidewalk/bike path from Upland Way to Middle Highway	TBD
Local subdivisions	As part of the local permitting process, new sidewalks were required as part of approvals for future developments, including the Palmer Point development	TBD
Barrington Village Improvements	New and improved sidewalks would be added on north side of Maple Avenue between the AAA site to West Street, on the east side of West Street and on Waseca. A multi-use path would be constructed along the east side of Wood Street. (See Map ED-3 in the Economic Development element)	2015

Source: Town of Barrington, State of Rhode Island

ity on an average weekday—which has been the case since at least 1990; the Police Cove lot is not yet at capacity. The Police Cove location has a bus pull-out to allow traffic on Route 114 to pass stopped buses.

The Senior Center bus is free and available to local senior citizens on weekdays for transportation to and from the Senior Center, weekly shopping trips and local appointments, when possible. Reservations must be made a day in advance.

Recent and Planned Transit Improvements

RIPTA reviews the performance of its bus routes on a periodic basis and, in 2013, discontinued Route 32 which provided West Barrington with two daily trips to Providence via Riverside. The route made a loop via Narragansett Avenue, Bay Spring Avenue and Washington Road, serving several senior housing developments and other densely developed neighborhoods. The route was dropped due to relatively low ridership when compared to other parts of the RIPTA system. Route 33 continues to operate from Providence to Riverside, terminating at Shaw's on Willet Avenue.

However, a number of other public-transit related improvements are shown in **Table 6**.

Issues and Opportunities

Improvements to Roadway Conditions and Safety

There is a continued need to improve traffic conditions and pedestrian safety at several locations in Barrington. These include state owned facilities where the town continues to work with RIDOT to program future upgrades and include them in the TIP, as well as to complete local improvements as recommended through the Safe Routes to School Program. Two intersection safety projects are programmed in the current TIP (County Road/Middle Highway and Middle Highway/S. Lake Drive), as well as the resurfacing of Nayatt Road.

Additional needs on state roadways include:

- *Wampanoag Trail/ RI 114:* A 2005 RI DOT traffic safety study found that two Wampanoag Trail intersections in Barrington were

Table 6 – Recent & Planned Public Transit Improvements

Name of Project	Description	Date Completed / Planned
Recently Completed Public Transit Improvements		
Police Cove Park-Ride	Twenty town-owned park-ride spaces and a bus pull-out were added at Police Cove as part of the bike path connector project completed in 2010.	2012
RIPTA Route 60 Improvements	RIPTA increased the level of service on bus Route 60 to operate every 15 minutes during peak hours, and every 30 minutes during the off-peak.	2014
New RIPTA Route 61X	A new express route operates 3 morning and 3 evening trips between the east side of Providence and Tiverton, via Barrington and Metacom Avenue in Warren/Bristol.	2014
Planned Public Transit Improvements		
Police Cove Park-Ride Expansion	An additional 17 park-ride spaces will be added as part of final park construction anticipated to be completed in 2015.	2015

Source: Town of Barrington, State of Rhode Island

at or over capacity – at County Road (or the junction of Routes 114 and 103) and just to the south at Old County Road. Based on 2000-2004 data, the first location also had the highest number of accidents ((28.6 per year), with a second location at Massasoit Avenue having the second highest (24.6 per year); none were fatal. Improvements to allow for pedestrian access to bus stops along Wampanoag Trail should also be considered.

- *Washington Road:* Washington Road is in need of an upgrade due to poor pavement condition.
- *Rumstick Road at County Road.* The configuration of the intersection – including the road access in front of Ace Hardware – provides a number of potential vehicular turning movements that can create safety issues for motorists as well as people crossing Rumstick Road on foot. The intersection should be studied for potential safety measures, including signage, striping and possible changes to the traffic pattern.
- *The Middle Highway-Lincoln Avenue intersection.* This intersection has a history of vehicular collisions. For example, a study revealed that in 2008 and 2009, there were 20 collisions at that intersection, five resulting in injury. The planned Safe Routes to School projects at the Middle School likely will increase the number of walkers and bikers crossing Lincoln Avenue and Middle Highway to and from school, heightening the need to improve safety conditions at this location.

Improvements to Pedestrian Safety

Existing Sidewalk Repair or Replacement

Map C-4 shows existing locations prioritized for sidewalk repair, including Maple Avenue, and sections along Washington Road, Nayatt Road and Middle Highway. A mechanism for regular maintenance, repair and snow removal should also be developed to keep sidewalks in good condition year round.

New Sidewalk Priorities

There remain significant gaps in the town's sidewalk system affecting the community's desire to provide an attractive, safe pedestrian environment and to encourage walking as an alternative mode of local transportation. New sidewalks should continue to be built in high priority areas as shown on **Map C-4**. These include locations along major roadways and also within one-half mile of schools, locations within or adjacent to commercial zones[1] and the Zion Bible Institute site, and other locations where safety enhancements have been identified. Improvements along Massasoit, Federal, Primrose and Middle Highway are programmed today.

Once sidewalks have been improved and/or installed at identified high priority locations, and ongoing maintenance needs are met, the Town may wish to install additional sidewalks. A long term goal would be to install new sidewalks along all major roadways in Town: the northern ends and intersection of New Meadow and Sowams Roads; the southern end of Sowams Road providing a connection to the East Bay Bike Path; the western end of Nayatt; and along Washington Road and Middle Highway south of the East Bay Bike Path. A longer term plan may also consider new sidewalks near higher density housing developments, senior housing, and/or recreational facilities.

Local Connections to East Bay Bicycle Path

General community support for the East Bay Bike Path, and growing use for local bicycle travel along its path, has prompted a renewed interest in expanding the bike system into other areas of Barrington. A local bike/trail system, however, could be built to lesser standards

[1] Sidewalks and other streetscape improvements are planned for the Village Center – see Pages 27 and 32, and Map ED-3 in the Economic Development element.

than the East Bay Bicycle Path, with an emphasis on providing the residents of Barrington with safe access to the state bike path, or to other destinations within the community, such as schools and/or recreational sites.

The Town has made limited progress on extending an in-town bikeway system as conceived in the 2002 Comprehensive Plan and originally proposed 10 years earlier. A more limited plan is now proposed, intended to make use of existing off road connections and to designate on-road connections where safe and appropriate (see Map C-4). This map includes the following connections:

- Existing off-road trails: Unpaved trails on publicly-owned land should be mapped to highlight their presence and to encourage local use. These include:
    - ◊ Haines Park trails connecting the Bike Path to Washington Road
    - ◊ Upland Way/Prince's Pond fields
    - ◊ St. Andrew's Farm Field trails connecting Middle Highway to Fountain Street and Washington Road
    - ◊ Kent Street woods to Sowams School
    - ◊ Veterans Memorial Park connecting the Bike Path and YMCA to Broadview Drive and Nayatt Road neighborhoods
    - ◊ Legion Way trail, running along the western edge of Brickyard Pond and connecting the Bike Path to recreational opportunities on Legion Way, and possibly through to Broadview
- Planned bike connections: Several new bike connections are planned and should be designated as bike trails. These include paved trails on:
    - ◊ Federal Road
    - ◊ Wood Avenue from Waseca to Maple Avenue
- Potential on-road connectors: Designated bike lanes or other symbols/signage could be considered on streets that connect off-road trails and other areas to the East Bay Bike Path:
    - ◊ Fountain Street, connecting St. Andrew Farm trails to Haines Park
    - ◊ Broadview Drive, completing a loop of off-road trails around Brickyard Pond
    - ◊ Maple Avenue, between the planned Wood St. connector and Cottage Street, directing bikes to use this path to reach the northern end of our village district
    - ◊ Water Way or Beach Road, as a connection from Veteran's Park/ Nayatt Road to Barrington Beach
    - ◊ S. Lake Drive, between Washington Road to the East Bay Bike Path at N. Lake Drive
    - ◊ Between the Bike Path and Chianese Field

Further work is needed to determine appropriate routes, to consider potential improvements (grading and cinder of off-road trails), to develop a map and determine appropriate distribution, and to determine whether separate bike and hiking trails should be designated in off-road locations. Coordination with the RI Department of Environmental Management would be required to make any improvements within Haines Park.

More Public Transit and Commuter Parking Options

Barrington saw a reduction in bus service with the removal of Route 32 from West Barrington in 2013, a trend that began in the 1990s when RIPTA dropped two routes: one that followed Washington Road from Bay Spring Avenue to Nayatt Road to Rumstick Road; and one that followed a Lincoln Avenue-Middle Highway-Maple Avenue route.

Reinstatement of bus service to higher density areas in West Barrington, including senior hous-

ing in this neighborhood, would be desirable. Connecting service to Barrington Center could be provided via Maple Avenue where the Town has improved pedestrian facilities and is encouraging higher density mixed-use development. RIPTA's recent reevaluation of routes did consider an option to enhance local Barrington service by extending service along Lincoln or Maple to meet Route 60 at County Road. This option was not pursued due to funding limitations, but identifying a village area location for the bus to terminate and turn around may encourage RIPTA to re-consider this option in the future. Extension of RIPTA's Route 33 from the shopping center on Willett Avenue, down Washington Road or Middle Highway to Maple Avenue, would connect the west side of town to our main commercial area.

Continued ridership growth on RIPTA's Route 60 line will also increase pressure to improve commuter facilities in Barrington, particularly since many residents have access to free bus passes through work. This is apparent due to the heavy usage of the White Church park and ride lot (see **Figure 1**), and the high volumes of traffic along County Road during commuting hours. Given this demand, it seems likely that the Police Cove lot may also soon be at full capacity, even with plans to expand it from 20 to 37 spaces. Adding a third park and ride lot in a convenient, accessible location would help to encourage increased bus ridership. Question is, where would the lot be built? Such a facility would require land, which is in short supply on the RI 114 bus route, and substantial funding.

A short-term fix may be to utilize existing parking lots along County Road as commuter lots, if property owners are agreeable to providing unrestricted access. For example, the large underutilized private lot at the corner of Cottage Street and Hamilton Avenue might be considered for shared commuter use on weekdays. Shared commuter lots or other publicly-owned lots could be promoted for both village shoppers and commuters. Improvements such as new sidewalks and crosswalks on the route to and from the bus stops and shelters may be needed to encourage usage of these lots. Agreements with local churches for weekday use is another option.

Construction of secure bicycle storage facilities would also increase access to public transit. The White Church, Police Cove and the Bike Path

Figure 1: Park-and-Ride Lot at Barrington Congregational Church

The Park-and-Ride Lot at the "White Church" (Congregational Church) is often at capacity.

intersection would make good sites for bike racks. The Town also could encourage the provision of amenities for bus riders as part of new commercial development projects on the County Road bus line. For example, a new commercial building built near the street could provide an extra-wide sidewalk with a sitting wall or bench underneath an overhang/awning. Another option to alleviate traffic as well as support commuters, would be to consolidate bus stops along Route 114 to provide fewer, more visible and comfortable stops, with shelters and seating.

Traffic Congestion and Capacity Constraints on Route 114/103

The high volumes of traffic on Route 114/103, the principal arterial serving both local and through traffic in Barrington, is a major issue particularly during peak commuting hours and in the area between Massasoit Avenue and the Warren River Bridge. Due to narrow road widths and the density of adjacent development, engineering solutions to alleviate this congestion are not simple, underscoring the importance of getting people to use alternative modes of transportation. Options to increase capacity of RI 114/103 are limited short of an expensive widening, which the Town does not support as doing so would detrimentally alter the character of the community.

In 2015, the State is planning to undertake a regional, multi-modal transportation corridor study of the East Bay region. This study may identify further improvements to RI 114/103 to improve the flow of through traffic in the area, as well as other actions to encourage alternative modes of transportation. Measures that could reduce congestion and should be considered as part of the study include:

- Additional pull-out lanes for buses, such as the one built on at Police Cove Park
- The consolidation of bus stops to limit the number times buses stop in traffic while passing through town.
- Enhanced signal timing throughout the commercial district
- A left-turn lane from County Road/RI 114 northbound onto Lincoln Avenue.
- Alternative road access to Barrington Shopping Center, as described below.

The study also should evaluate the location of pedestrian crossings on County Road, in particular in front of Town Hall.

Options for Alternative Road Access to Barrington Shopping Center

Barrington over the years has considered options to create secondary access to the Barrington Shopping Center. An alternative local road would help alleviate traffic congestion on County Road, enhance local circulation within the business district, and improve emergency access. One option, the extension of Bosworth Street to West Street, has been ruled out as it would require the use of environmentally sensitive land protected by a conservation easement. A second option, the extension of Wood Avenue into the shopping center, appears to be feasible, but is challenging due to presence of a commercial parking lot (Rite Aid) which aligns with Wood Avenue at Waseca.

The Wood Avenue extension concept was re-evaluated as part of the *Village Center Connectivity Study (2014)*. Rather than extend a Town street, the consultant illustrated two potential options to connect the rear portion of the Rite Aid parking lot with the shopping center parking lot near Citizens Bank. The idea had mixed support from affected property owners, and further work is needed to determine feasibility, cost and impacts.

Future Traffic Impacts of Large-Scale Development Projects

Growth and development in Barrington Center and other neighborhoods along RI 114/103, as well as in communities to our south have the

potential to further increase congestion along the roadway. In 2013, the Planning Board granted master plan approval for a proposed affordable housing development on Sowams Road totaling 40 new housing units. A detailed traffic study will be required at the preliminary plan stage to determine impacts on Sowams Road intersections at RI 114/103 and Kent Street.

A second large development planned on RI 114/103 south of the Warren River Bridge will increase traffic congestion. The redevelopment of the American Tourister property is planned to include up to 316 residential units and 106,500 square feet of commercial space.[2] The developer is also performing a traffic study to evaluate of impacts on RI 114/103 in Barrington, in particular at Sowams and New Meadow Roads.

A third major project is the potential redevelopment of Zion Bible Institute on Middle Highway. The 40-acre site is accessible from RI 114 via Primrose Hill Road and from RI 103 via Middle Highway. The Town should require a traffic study as part of preliminary planning to identify any potential impacts on these roadways. (The Town's goals for the site are included in Appendix II: Developer Guidance.) Ways to enhance access to RIPTA bus routes, which are within 1/4 of a mile from the site on Willett Avenue and RI 114, should also be considered.

Goals, Objectives, Policies and Actions

Goal C-1: Provide a safe and well-maintained transportation system throughout town.

Objective C-1.1: Maintain all roads in at least a "fair" pavement condition.

Objective C-1.2: Complete projects to enhance traffic operations and safety at a minimum of three high priority locations within 10 years.

Policy C-1.1.1: Budget sufficient funding for maintenance of the Town's street system, including pavement, sidewalks, crosswalks, curbing and drainage infrastructure.

Policy C-1.2.1: Work to secure funding for ongoing maintenance and critical safety projects on State roads through the Transportation Improvement Program.

Policy C-1.3.1: Maintain and install sidewalks in high priority areas, defined as those areas within 2,000 feet of schools on major roadways, within business districts, and in other areas with high pedestrian activity and challenging roadway conditions (e.g. high traffic volumes, narrow shoulders, curves, etc.)

Actions

A. Undertake design and work to secure funding to improve high priority intersections and streets with a high level of safety incidents, including:
   - Middle Highway-Maple Avenue intersection (currently in TIP)
   - Massasoit Avenue sidewalks (in TIP)
   - Wampanoag Trail intersections with County Road, Old County Road and Massasoit.
   - Pedestrian crossings on Rumstick Road in vicinity of County Road
   - The Middle Highway-Lincoln Avenue intersection.

B. Pursue improvement concepts for additional high volume or high incident intersections as identified in local or regional traffic studies (e.g. the New Meadow Road-County Road and Sowams Road-County Road intersections).

C. Establish funding for an ongoing annual program to perform repairs and upgrades to existing local roadways and sidewalks,

[2] The master plan application under review in 2014 includes 200 apartments in Phase 1 (80 one-bedroom; 120 two-bedroom) and 116 apartments in Phase 2 (46 one-bedroom; 70 two-bedroom).

including snow removal. Use payments made in lieu of required sidewalks for sidewalk installation in high priority locations.

D. Implement Safe Route to School recommendations including: improve Primrose parking/drop-off circulation; install flashing lights at Middle Highway/Old County Road; and make intersection, sidewalk and crosswalk improvements around Middle School.

E. Install and maintain new sidewalks at identified high priority locations as shown on Map C-4.[3]

F. Advocate to advance statewide priority of repaving for Nayatt Road and to include future repaving and reconstruction of Washington Road.

Goal C-2: Provide a balanced multi-modal transportation system throughout the town to help reduce automobile dependency, enhance our community's character, and improve the health and well-being of our citizens.

Objective C-2.1: Increase the share of local trips made via walking and biking rather than using automobiles, including trips to school, to recreational opportunities, and to and within village commercial areas.

Policy C-2.1.1: Take advantage of the tremendous mobility and recreational resource provided in our town through the East Bay Bike Path by enhancing access and promoting connections to this trail.

Policy C-2.1.2: Reduce barriers to walking and biking to school through infrastructure and non-infrastructure activities, consistent with the recommendations of the Safe Routes to School program.

Policy C-2.2.1: Take local action to support and require the installation of facilities that make the use of public bus transportation more attractive and convenient and encourage greater utilization of RIPTA buses at local stops.

See the Implementation element for information on implementation schedule, priorities, estimated costs, responsibilities and action types.

Actions

A. Install wayfinding signage directing pedestrians and bicyclists from bike path to local destinations (see also Economic Development Goal ED-2, Action D).

B. Create a Barrington Bicycle and Pedestrian Committee to map preferred in-street lanes and off-road bike routes and assess sidewalk needs as a broader bikeway and sidewalk system in Barrington (as shown in **Maps C-4 and C-5**), and to identify further actions to enhance this system (e.g. maintenance priorities, trail grading, signage, crosswalks, new paved connections in critical areas, etc.)[4]

C. Look for opportunities to accommodate additional park and ride capacity or for joint utilization of parking lots located near bus stops preferably focusing on Route 114 (such as commercial and church lots in the vicinity of County Road).

D. Encourage RIPTA to reinstate route to serve high density Bay Spring area (with senior and affordable housing) and/or encourage extension of Riverside service to the Barrington Village Center via Maple Avenue or Lincoln Avenue.

E. Work with State to provide safe access to bus stops on Route 114 north of White Church bridge.

F. Develop a "complete streets" policy for Council approval, encouraging a local street

[3] Economic Development Goal ED-1, Action A, recommends proceeding with plans to construct new and rebuild existing sidewalks in the Village Center as part of a streetscape enhancement project.

[4] Outdoor Recreation Goal OR-2 includes actions to improve trails within parks and open space parcels

network that safely accommodates automobile, bicycle and pedestrian activity.

Goal C-3: Relieve growing traffic congestion on County Road/Route 114 in order to enhance the vitality and attractiveness of downtown Barrington as a place to visit, shop and do business.

Objective C-3.1: Improve traffic flow on Route 114/103 by making physical and traffic management improvements.

Objective C-3.2: Improve traffic flow on Route 114/103 by identifying and constructing a secondary, alternative route for local traffic.

Policy C-3.1.1: Coordinate with the State and adjoining East Bay communities to reduce traffic congestion on County Road through regulations and infrastructure investment where feasible, including taking regional actions.

Policy C-3.2.1: Pursue solutions to create a new local connector between Wood Street and Barrington Shopping Center.

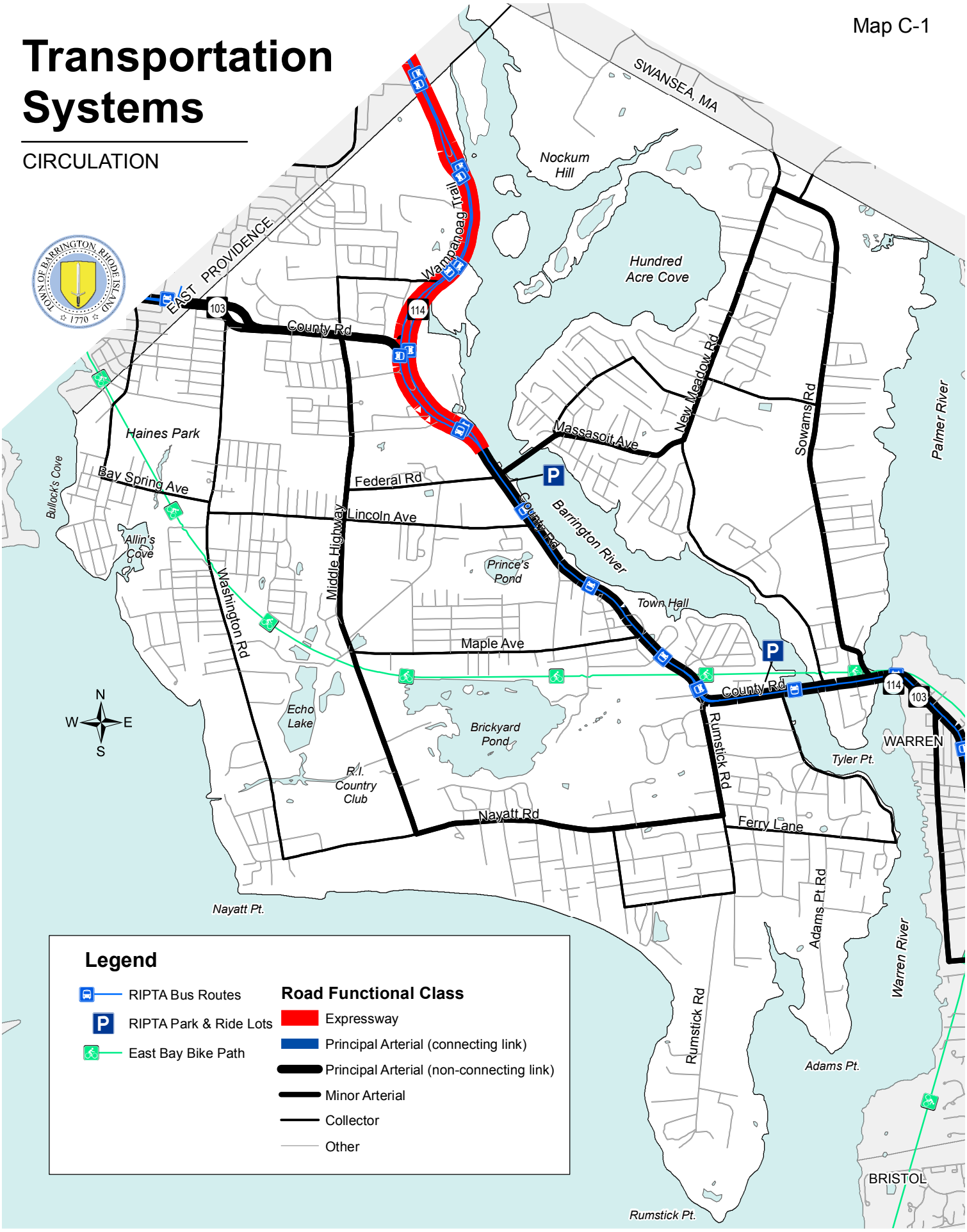
Actions

A. Actively participate in the State's East Bay transportation study; pursue funding and implementation of recommendations. Encourage State to identify new locations for bus pull-off along County Road, to expand park-ride facilities throughout East Bay, and to better synchronize traffic signals.
B. Direct Town Manager to pursue local vehicular connection across the Bike Path at the Barrington Shopping Center, as illustrated in the Village Center Connectivity Plan, to include the hiring of a traffic engineer to develop alternative concepts and perform traffic study, and coordination with local residents and property owners.
C. Request state to provide a left turn-lane onto Lincoln Avenue from Route 114 NB.
D. Develop zoning and land development standards requiring internal connections between shopping areas to minimize curb cuts.
E. Meet with RIPTA to identify low usage bus stops on County Road for consolidation, and make the consolidated stops more prominent with shelters, in order to improve the efficiency of bus service and help alleviate traffic congestion due to stopped buses.
F. Amend Subdivision & Land Development regulations to require developers to pay Town a project review fee sufficient to fund a traffic study on behalf of the Planning Board, for projects that require more than 20 off-street parking spaces. Fee should be on a sliding scale based on size of a project.

Transportation Systems

CIRCULATION

Map C-1



0 4,000 8,000 Feet

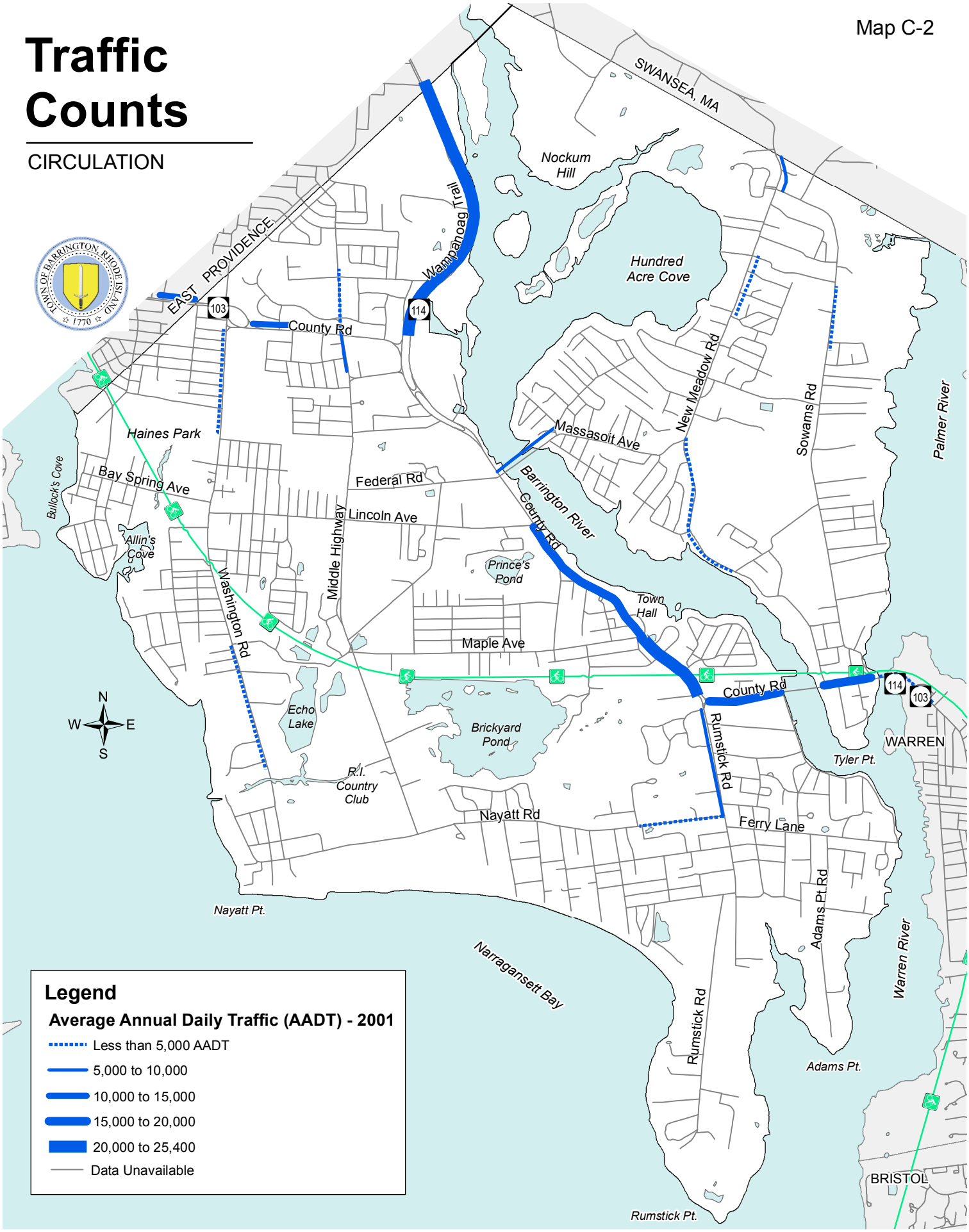
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Traffic Counts

CIRCULATION

Map C-2



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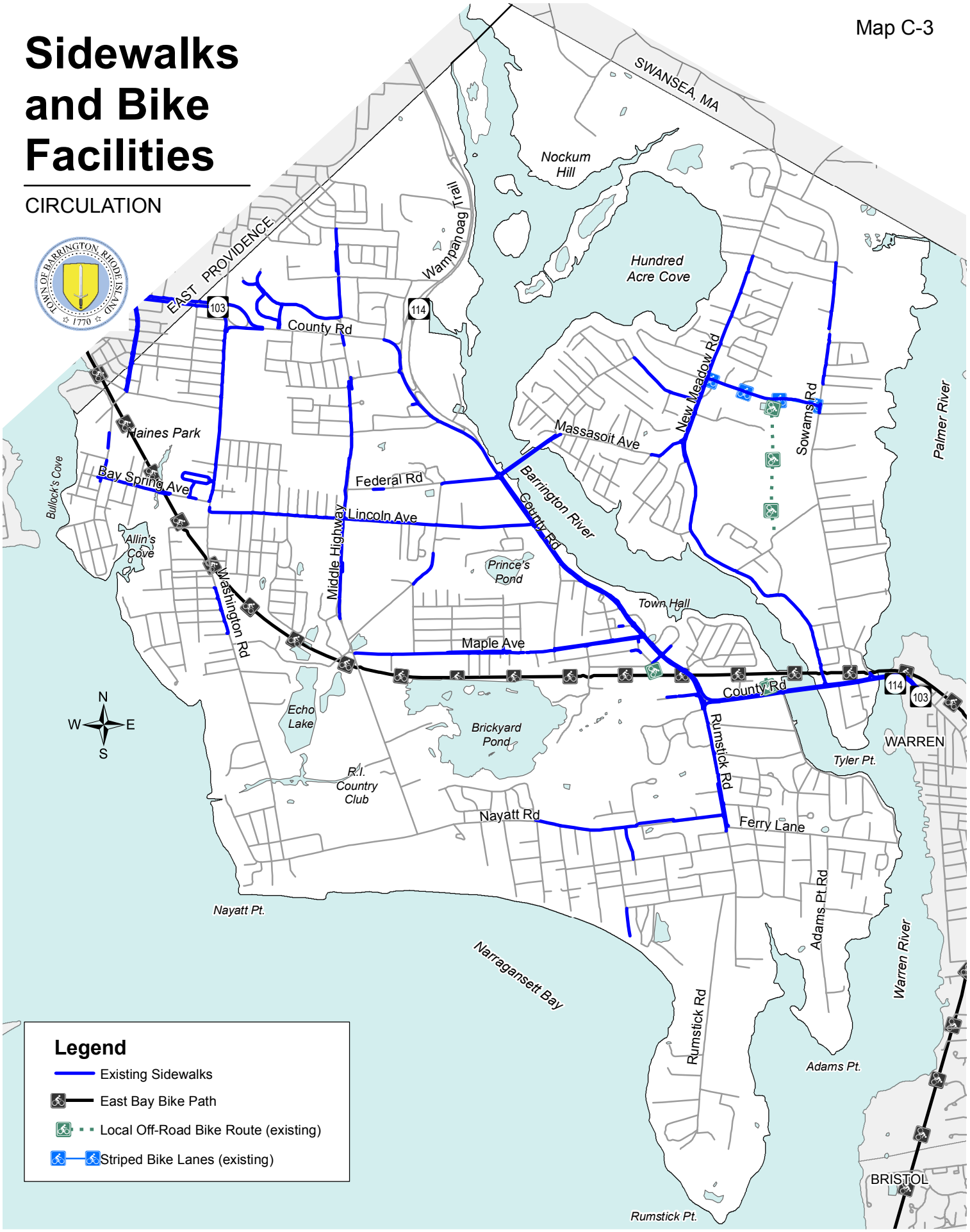
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Sidewalks and Bike Facilities

CIRCULATION

Map C-3



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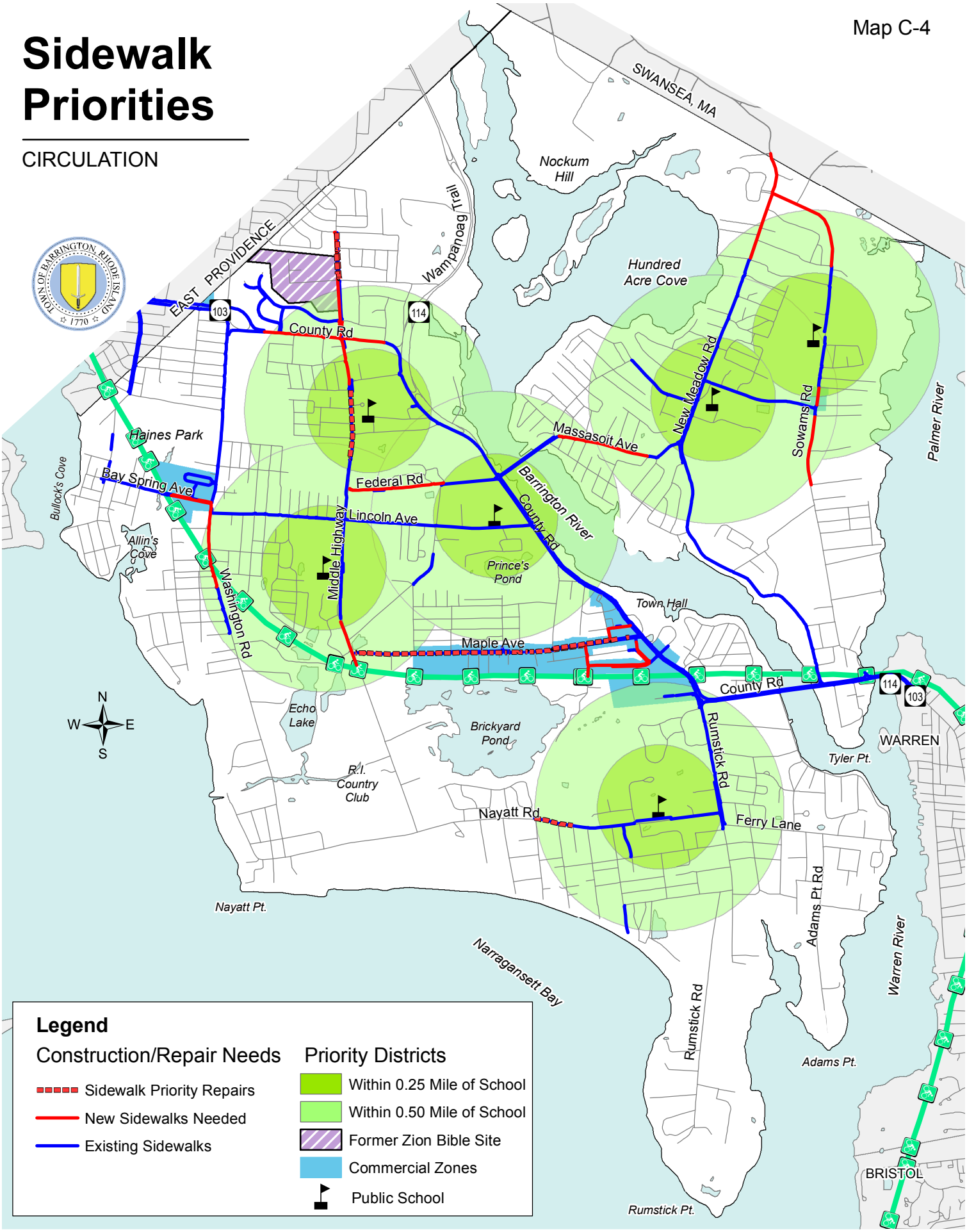
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Sidewalk Priorities

CIRCULATION

Map C-4



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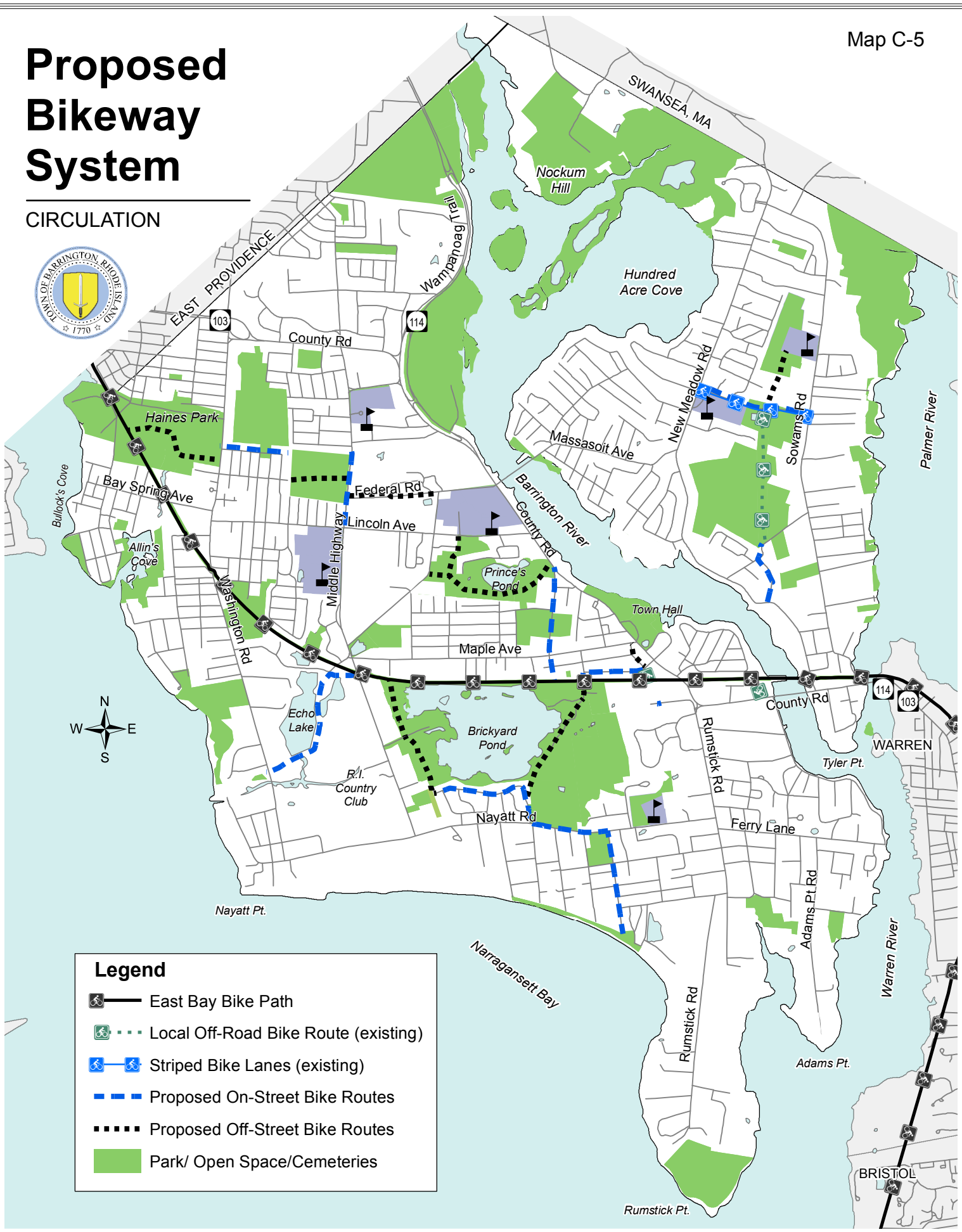
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Proposed Bikeway System

CIRCULATION

Map C-5



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SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

4 COMMUNITY SERVICES & FACILITIES

Overview

This Comprehensive Plan element focuses on the following community services and facilities:

- Municipal Facilities (see **Map CSF-1**): Town Hall, Peck Center (Senior Center & Public Library), Public Works, Public Safety Building, public school buildings and Bay Spring Community Center.
- Municipal Operations: Town administration, police and fire protection, emergency management, harbormaster, public works, library services and senior services.
- Municipal Infrastructure: stormwater, water and sewer facilities

Certain municipal functions are discussed elsewhere in the Plan: transportation facilities (Circulation), parks and recreation services (Open Space & Recreation), energy (Energy) and emergency management (Hazards). School operations are not a Comprehensive Plan issue.

Existing Conditions

Town Hall

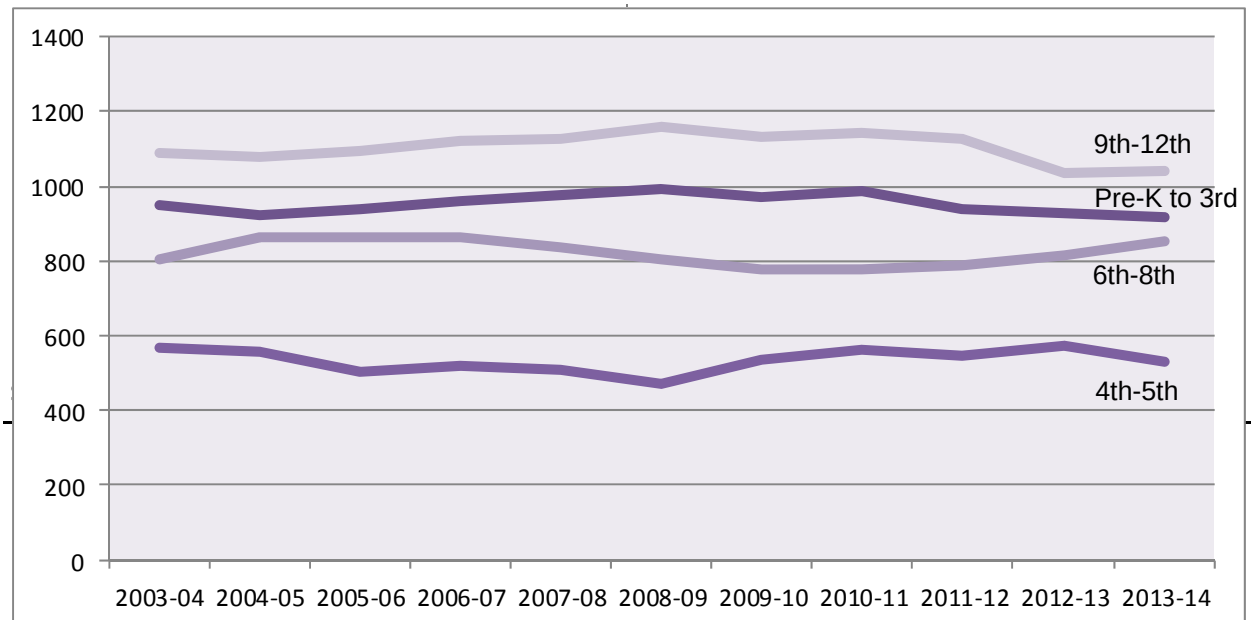
Town Hall houses Town administrative offices, the School Department and meeting rooms. Since 2005, renovations to Town Hall have included: replacement of the slate roof, improvements to offices on the first and second floors, and refurbished office space in the lower level (basement), including a new conference room. The basement renovations enabled the Town to relocate the Recreation Department from the Peck Center, improving public access to that department, and to provide space for support the Bay Team, supporting the work it does to support local youth.

Public Schools

The Town owns and maintains six school buildings; school administration is housed in Town Hall. The School Department is contin-

Public Safety Building, 100 Federal Road

Figure 1: Enrollment History: Barrington Public Schools, 2003-04 to 2013-14



Source: Barrington School Department

ually monitoring the condition and needs of its facilities, and has recently identified a series of short-term updates. These include about $2.4 million in near-term safety improvements that will be implemented by the end of 2015.

Public school enrollment fell by approximately 70 students over the last decade. There was a peak in the 2006-07 year, with 3,464 students, and again in 2010-11 with 3,466 students (see **Figure 1** for enrollment by grade level from 2003-04 to 2013-14). Another relatively large class is moving through the middle school, yet is not large enough to offset an overall trend towards lower enrollment. This trend corresponds with an overall drop in Barrington's population —by 509 people, or 3.0 percent, between 2000 and 2010, according to census data.

Enrollment projections suggest a continued decline in total school enrollment in the coming years. The projections, generated for the Barrington Public Schools by the New England School Development Council (NESDEC), are shown in **Table 1**. In 2023-24, school enrollment is projected to total just 2,687 students, or 636 fewer than in 2013-14—a 19.5 percent decrease.

Table 1: Barrington Public Schools - Enrollment Projections: 2013-14 to 2023-24

	School Year											2013-14 to 2023-24	
Grade	**13-14**	**14-15**	**15-16**	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**	**21-22**	**22-23**	**23-24**	**Change**	**% Change**
Pre-K to 3	912	880	828	759	730	730	726	748	738	737	739	(173)	-19.7%
4 - 5	531	501	511	526	496	441	413	387	392	416	406	(125)	-25.0%
6 - 8	854	829	825	777	770	776	765	706	650	596	601	(253)	-30.5%
9 - 12	1026	1048	1016	1078	1091	1052	1040	1012	1001	980	941	(85)	-8.1%
TOTAL	3323	3258	3180	3140	3087	2999	2944	2853	2781	2729	2687	(636)	-19.5%

Source: New England School Development Council—Enrollment projections prepared for Barrington Schools

Emergency management is discussed in greater detail in the Natural Hazards element.

Emergency Management

Barrington, like all Rhode Island communities, has an Emergency Management director responsible for developing the local emergency management program, and coordinating the program in the event of an emergency.

The Town has formed a staff committee to work with the local Emergency Management director on emergency / disaster planning and departmental response during emergencies. The Town has worked to secure interagency agreements with adjoining communities to strengthen response capabilities. An agreement with East Providence was recently secured to establish public shelters during hurricanes, if needed, as all but Primrose Hill Elementary are in zones with high potential for flooding.

Public Safety

The Existing Services and Facilities Map (Map CSF-1) shows one major addition in the past 20 years: the Public Safety Building on Federal Road, completed in 1999. The facility serves as headquarters for both the Police and Fire Departments.

The Police Department has 24 sworn police officers and a staff of seven civilian personnel. Crime statistics for 2007 through 2013 are shown in **Table 2** on the next page. Crime has declined steadily in recent years, with 130 fewer reported offenses in 2013 (a total of 428) than in 2007 (a total of 558) — a 23 percent decrease.

The Town's full-time Fire Department has 25 trained firemen, including the fire chief. The paid department was previously assisted by the Hampden Meadows Volunteer Department, but the organization disbanded in 2014.

The harbormaster and emergency management director, both part-time positions, have access to an office at the Public Safety Building. The harbormaster dock, adjacent to a public boat ramp scheduled for reconstruction, is located at the Police Cove site on the Barrington River.

Barrington Public Works

The Barrington Public Works Department operates out of a facility on Upland Way, which includes offices, parking for DPW vehicles, a maintenance garage, storage sheds and the Town's Recycling Center. The department is responsible for a maintaining Town owned-facilities and infrastructure, including local roads, storm drainage system, sewer system, sidewalks and municipal buildings.

Public Works also provides a variety of services, including maintenance of all School grounds, Parks, Town Beach, lining and grooming of all playing fields, snow plowing, salting and sanding, mosquito control, refuse collection and recycling.

<u>Refuse Collection and Recycling</u>
Collection of refuse, recycling and yard waste is on a weekly basis and is provided by a private collection company. Recyclables may also be brought to the Town's Recycling Center adjacent to Public Works located on Upland Way. Refuse is only collected curbside; it is not accepted at the Recycling Center.

Recyclables that are accepted at the Town's Recycling Center, in addition to standard curbside recycling, include: vegetable oil, rigid plastic, fluorescent bulbs, textiles, white goods, computers, televisions, scrap metal, leaves/grass, anti-freeze, motor oil/filters.

White goods collection is also provided curbside one week a month; residents must call for an appointment. Brush chipping takes place six weeks in the spring and fall. Brush is chipped curbside by Public Works crews. Residents must call for

Table 2: Crime Statistics, Barrington: Total Offenses, 2007-2013

Description	2007	2008	2009	2010	2011	2012	2013
Homicide: Murder/Nonneg. Manslaughter	0	0	0	0	0	0	0
Homicide: Negligent Manslaughter	0	0	0	0	0	0	0
Homicide: Justifiable	0	0	0	0	0	0	0
Kidnapping / Abduction	1	0	0	0	0	0	0
Sex Offense, Force: Rape	1	1	0	1	1	2	0
Sex Offense, Force: Sodomy	1	0	0	1	1	0	1
Sex Offense, Force: Object	0	1	0	2	2	0	0
Sex Offense, Force: Fondling	3	2	0	2	2	1	0
Robbery	1	0	0	2	0	3	1
Assault: Aggravated	2	1	2	2	7	1	1
Assault: Simple	59	56	39	44	42	25	18
Assault: Intimidation	9	10	10	8	14	14	16
Arson	4	3	0	3	2	1	1
Extortion / Blackmail	0	0	2	0	0	1	1
Burglary / Breaking And Entering	35	35	38	41	43	30	49
Larceny: Pocket-Picking	0	0	0	0	0	0	0
Larceny: Purse-Snatching	0	0	0	0	0	0	0
Larceny: Shoplifting	5	11	7	7	5	6	6
Larceny: From Bldg	21	13	18	16	11	16	28
Larceny: From Coin Operated Machine	0	0	0	0	0	0	0
Larceny: From Mv	71	50	43	54	28	36	45
Larceny: Affixed Mv Parts/Accessories	1	1	3	2	0	1	2
Larceny: All Other	113	107	103	81	95	89	82
Motor Vehicle Theft	8	2	4	13	3	3	4
Counterfeiting / Forgery	5	9	11	9	6	3	7
Frand: False Pretenses	27	25	21	16	21	31	39
Fraud: Credit Card/ATM	13	17	26	18	20	14	8
Fraud: Impersonation	0	0	2	1	1	0	2
Fraud: Welfare	0	0	0	0	0	0	0
Fraud: Wire	0	0	0	2	0	0	0
Embezzlement	4	0	5	0	3	3	2
Stolen Property Offenses	2	5	3	6	1	4	8
Destruction / Damage / Vandalism	145	123	106	99	118	80	47
Drug/Narcotic: Violation	24	31	22	23	37	42	51
Drug/Narcotic: Equipment	0	0	0	0	0	0	0
Sex Offense, Non Force: Incest	0	0	0	0	0	0	0
Sex Offense, Non Force: Statutory	0	0	0	0	0	0	0
Pornography / Obscene Material	0	0	0	1	0	1	1
Gambling: Betting/Wagering	0	0	0	0	0	0	0
Gambling: Operate/Promot/Assist	0	0	0	0	0	0	0
Gambling: Equipment Violations	0	0	0	0	0	0	0
Gambling: Sports Tampering	0	0	0	0	0	0	0
Prostitution: Engaging	0	0	0	0	0	0	0
Prostitution: Assist/Promoting	0	0	0	0	0	0	0
Bribery	0	0	0	0	0	0	0
Weapon Law Violations	3	5	4	9	5	6	8
TOTAL OFFENSES	**558**	**508**	**469**	**463**	**468**	**413**	**428**

Source: Crime in Rhode Island 2013 report (March 2014 / RI State Police)

Table 3: Public Works Department Activities, 2011-12 to 2013-14 Fiscal Years

Activity	2011-12	2012-13	2013-14
Refuse and Recycling			
Refuse - tons	5,929	5,766	5,567
RI Resource Recycling - tons	2,225	2,306	2,388
RI Resource Recycling Rate	27.29%	28.57%	30.02%
Other Recycling - tons	3,470	4,058	3,639
Total Recycling - tons	5,695	6,364	6,027
Overall Recycling Diversion rate	48.99%	52.47%	51.99%
Per Capita Waste Generation Rate (tons)	0.713	0.744	0.711
Other Activities			
Snow Plowing - miles	1,620	5,717	8,229
Salting / Sanding - miles	565	1,700	2,912

Source: Barrington Public Works Department

an appointment; brush is not accepted at the Recycling Center. The brush chipping program is for small residential use and is not intended for commercial and landscaper use.

Table 3 includes data on refuse and recycling tons. Rhode Island Resource Recovery recycling tons are collected curbside as well as from the Town's Recycling Center and brought to the Johnston Facility. Other recycling includes all the material listed above that is not accepted at the Johnston facility but recycled elsewhere. Total recycling is a combination of material recycled at the Johnston Facility as well as elsewhere.

For municipalities providing curbside collection of refuse and recycling the Town's overall diversion rate of 51.99 percent ranks first in the State.

Winter Storms—Plowing, Sanding/Salting

Table 3 also provides mileage logged by DPW trucks in plowing snow and salting/sanding streets. The numbers can vary greatly each year. For example, total miles in 2013-14 were more than five times that of 2011-12. The uncertainty affects DPW's yearly operating budget. Trucks and other equipment used to plow and sand/salt streets represent the majority of capital funding budgeted each year for DPW, which typically ranges from $200,000 to $250,000.

Water Supply

Barrington's public water supply, along with that of Warren and Bristol, is provided by the Bristol County Water Authority (BCWA), a public water authority which has been operational since 1984. As **Map CSF-2** shows, most of Barrington has access to public water, with one notable exception being the George Street area. The BCWA purchases 100 percent of its water from a single source: the Providence Water Supply Board (PWSB).

Water is delivered from the Scituate Reservoir via the East Bay Pipeline under the Providence River. Completed in 1998, the pipeline provides the system with a supply of up to 7.5 mgd of treated water. The primary main runs under the East Bay Bike Trail, with six pump stations in Barrington.

The Water Authority does have an alternate surface water supply consisting of the Shad Factory Reservoir and Anawan Reservoir in Rehobeth, Mass., the Swansea Reservoir in Swansea, Mass., and the Kickemuit Reservoir in Warren. All of these are currently off-line.

The Authority's Child Street Treatment Plant in Warren, that was used to treat water from the BCWA's various surface sources, has also

Drought mitigation is discussed in the Natural Hazards element

been taken out of operation. It is presently maintained as an emergency supply until an alternate supply is obtained.

The plant was designed and constructed in 1908 to treat up to 4 million gallons (mgd) of surface water per day, but due to changes in regulations it was only capable of 1.5 mgd when it was taken off-line in 2011. The BCWA has determined the limited quantity and quality of the supplies, along with the need to replace most of the infrastructure — including the treatment plant — made the continued use of the supply to be unreasonable.

A former 0.65 mgd groundwater source, located on Nayatt Road in Barrington, was taken out of service in 2001 due to significant reductions in flow capacity and increasing iron, manganese and salt contamination. The treatment plant consisted of an iron and manganese removal system designed for 2 mgd that treated groundwater from a 12-inch gravel-packed well located at the facility. There are no plans for it to be returned to operation. The property is also the location of the Nayatt Road booster pump station, which is a component of the East Bay Pipeline.

Average daily demand for BCWA water has dropped, from 3.65 million gallons per day (mgd) in 2005 to 3.12 mgd in 2014. Today, average household demand is 47,140 gallons per year, or 40.5 gallons per person per day. According to the BCWA, consumption has decreased significantly over the past 10 years due to conservation, slower growth rates, the loss of industry and smaller family size.

BCWA is undergoing a major water main rehabilitation project to improve water quality and the structural integrity of the system, including the cleaning and lining of pipes in Barrington — part of a 10-year, $37 million capital program.

The Town Manager is responsible for coordinating Barrington's response with the Bristol County Water Authority and the Water Resource Board in periods of drought or extended dry conditions that require an emergency response to reduce water usage in the community. In response to past events, Barrington has appointed a citizens water conservation committee to work with Town departments to notify the public about water restrictions and encourage practices that reduce water consumption.

Wastewater Treatment

Public Works is responsible for maintenance of the town wide sewer system including the force mains, laterals and pumping stations. The Town has six major sewer pumping stations, located at Police Cove, near the Barrington River Bridge, on County Road near Prince's Pond, Freemont Avenue, Legion Way near Brickyard Pond, Walnut Road and Bay Spring.

The pump stations at Police Cove, Prince's Pond and Freemont pump into the Brickyard Pond station on Legion Way. This station, along with Walnut Road and Bay Spring, pump into a sewer force main located adjacent to the East Bay Bike Path. There are also smaller ejector stations and sewer grinders that pump and move the wastewater along into the system into the various pumping stations (see **Map CSF-3**).

The force main connects to the treatment facility in East Providence. The Town shares the cost of upgrades to the East Providence treatment facility based upon the percentage of Town's flow through to the plant. The sanitary force main connection with East Providence failed in December 2006. In response, the Town replaced the force main, a $5 million-plus project. The cost was covered through the sewer enterprise fund, which is also the mechanism for covering future multi-million-dollar improvements at the East Providence plant. The Town also undertook upgrades to the six major stations as well as improvements to the ejector stations and grinders.

Since 2008, upgrades to the six major stations as well as improvements to the ejector stations and grinders have taken place at a cost of more than $9 million, bringing the Town's wastewater infrastructure into good condition. Ongoing long-term investment in sewer infrastructure is required. Costs of monitoring the entire system as part of the Town's preventative maintenance program include video cameras checking sewer lines, jet-rodding and cleaning of the lines, upgrading of pumping station components and computers, and monitoring of nitrogen.

Stormwater Management

The Town's requirements for stormwater management within new subdivisions and land development projects are detailed in the Land Development & Subdivision Regulations. Drainage plans are reviewed by the DPW director and, when required, a peer review engineer, subject to Planning Board approval. Additional requirements—such as prohibitions on draining to public roadways and on connecting sump pumps to the sewer system—are covered in the Code of Ordinances (Chapter 91).

The Town maintains drainage systems within the public rights of way, including the use of a street sweeper to keep catch basins clear of debris. There are a few isolated stormwater detention basins that, in general, are maintained by homeowners associations, required through the subdivision approval process. The Town has easement rights to access stormwater facilities on private land, to complete maintenance as necessary. Funding for personnel and equipment comes from property taxes (there is no stormwater utility).

The roadway stormwater system maintained along State and local roads includes total of 521 catch basins (see **Map CSF-4**) and 347 manholes. Most of this drainage infrastructure is along major roadways such as Wampanoag Trail/County Road and the mixed-use sections of Maple Avenue. Several State roads have no stormwater facilities along significant stretches of roadway—including sections of New Meadow Road, Sowams Road, Massasoit Road, Middle Highway, Nayatt Road and Washington Road. New Meadow Road near Christine Drive in particular has had flooding issues during heavy rains.

Most residential streets lack drainage structures. Exceptions include Mathewson Road, Broadview Drive, south of Brickyard Pond, and several neighborhood streets off New Meadow Road and Sowams Road and near the Zion Bible Institute.

Map CSF-5 depicts impervious coverage in town. Most of these surfaces—roads, parking lots, rooftops, paved driveways, sidewalks, etc.—are concentrated around the Village Center, Maple Avenue, and large non-residential sites that have large buildings and/or large parking lots, such as schools, marinas and churches. The map shows the densest residential neighborhoods, such as Bay Spring, with a significant percentage of impervious coverage.

As discussed in the Natural Hazards element, the Town has worked to reduce impervious surface where feasible. For example, the Town in 2014 took advantage of financing from the State's Clean Water Fund to complete drainage improvements at the Town Beach, a project that involved the removal of excess asphalt, the installation of rain gardens to capture runoff, and the replacement of an asphalt swale with a rip-rap swale in Water Way, eliminating a point source discharge. The Town in 2014 also rebuilt the shoreline section of Latham Park, including the reconstruction of the parking lot featuring a new rain garden within a new center landscaped island.

Barrington Public Library

The Public Library is in the Peck Center building at the Town's government center on County Road. The early 1900's school building adja-

cent to Town Hall also houses the Barrington Senior Center as well as the Barrington Preservation Society. The first floor of the library underwent a major renovation in 2005. Renovation of the second floor of the library/Peck Center is being planned for 2015-16.

The library's collection consists of over 129,000 print titles and 9,600 non-print titles. The library also participates in the statewide circulation of books through Ocean State Libraries, the statewide consortium of public libraries in Rhode Island. Circulation (check outs) is close to 400,000 a year, making the Barrington Library the fourth busiest public library in the state, with the highest per capita circulation.

The library offers a number of programs for children and teenagers, including story hours, films, live performances and a full summer reading program. For adults, it offers films, speakers, discussion groups, and play and poetry readings. It is governed by a seven member board of trustees, appointed by the Town Council, with a staff of 14 full-time and 16 part -time people.

The library has a fully computerized card catalog and circulation control system which is tied into the statewide network. The library can also communicate with college and special libraries through a national online network. These networks are expected to expand, with the vision of "one catalog for all Rhode Island libraries" considered achievable in the near future.

The library also is working on a new five-year plan for 2015-2020. In the future, the Board of Trustees expects a gradual increase in services and materials offered, with emphasis on public library programming, readers' advisory and online services.

Barrington Senior Center

The Senior Center, located on the ground floor of the library building, provides opportunities for social and recreational activities, personal enrichment, wellness, advocacy and volunteerism for citizens who are 55 years and older as well as for younger persons with disabilities. It is a nationally accredited center managed by a full-time director, seven part-time staff members, and a nine-member advisory board.

Services include Emergency Dialer System installations, health insurance counseling, RIPAE (RI Pharmaceutical Assistance for the Elderly) application assistance, income tax preparation, flu clinic, various health screenings, and a Senior Companion visitor program. Programs and activities (most at no charge) include educational programs, discussion groups, health promotion, and exercise classes.

Many programs are done in collaboration with other Town departments and local organizations such as VNA of Newport County, Bayside Family YMCA, Barrington Community School and AARP. Additional financial support is received from the Friends of the Barrington Senior Center organization which has provided a small fitness room, computer lab, the Senior Van and the redecorated restrooms.

Bay Spring Community Center

In 2013, the Town completed renovations to the 1910 two-story building on Narragansett Avenue—work that included the installation of a lift providing ADA access to the large meeting room on the second floor. The Town in 2010 completed first-floor renovations, addressed fire code issues and replaced an inefficient boiler system.

The two phases, which cost approximately $200,000, have added to the Town's inventory of available meeting spaces. The building can be reserved through the Clerk's office. The Town's Recreation Department is also working with a Bay Spring neighborhood association to help coordinate activities and provide additional programming to residents.

Cemeteries

The Cemetery Commission manages Town cemeteries, which include the Forest Chapel and Prince's Hill cemeteries. The Commission has a self-sustained budget. Recent projects include the addition of a columbarium at Prince's Hill Cemetery, and the acquisition of more than seven acres on George Street as a future cemetery site.

Issues and Opportunities

Facility Needs

School Maintenance

The School Department is continually monitoring the condition and needs of its facilities, and is in the process of completing $1.9 million in short-term safety improvements. An additional $10 to $15 million in facility needs has also been identified for all schools (not including the Middle School) as part of a recent Stage II improvement assessment. These include efforts to keep the facilities in a state of good repair (e.g roof replacement), as well as projects to reflect evolving curriculum needs (e.g. separating the cafeteria and auditorium functions at the elementary level).

Middle School

The largest facility need facing the School Department is the need to update or reconstruct Barrington Middle School. The School Department is working to follow State and Federal processes to qualify Middle School reconstruction for state and/or federal funding. The School Department in 2014 began the process of developing conceptual plans for a new building at the site.

Town Hall and Peck Center

Space at the Peck Center is in high demand. The building houses the Library on the first and second floors and the Senior Center, the Preservation Society archives, and TAP-IN in the basement (lower level). The second floor includes several community meeting spaces and an auditorium. All of these users lack room to expand. The Library, as discussed earlier, has a very high utilization rate and is currently updating its five-year plan.

The Town will need to continue to evaluate the adequacy of parking for Town Hall and the Peck Center given the importance of maintaining adequate public access to these two critical public facilities. Strong bike and pedestrian connections should also be maintained to better connect these facilities to the downtown business district.

Senior Center / Community Center

The Senior Center also needs to adapt to changing expectations of the Baby Boomer generation, which is more technologically savvy and is expected to be more active than previous generations of retirees.[1] The Senior Services Advisory Board's review of census data found that over 4,000 Boomers currently reside in Barrington today, or one in four residents.

The Senior Services Advisory Board is in the process of evaluating its future needs and has concluded that the retiring Boomer generation will not only require additional but, in some cases, different programs and services. The facility has issues that will need to be addressed, according to the Board, including a lack of sufficient parking and program space, an ambience which is not welcoming due to an institutional feel.

Another factor is the potential for additional senior-oriented housing, as recommended in the Comprehensive Plan for the Zion Bible Institute site, and with the option added to the Zoning Ordinance in 2012 allowing cottage-style senior residential community developments. The redevelopment of the former Zion Bible Institute alone could add more than 200 senior-housing units and an assisted living facility with 50 to 75 units/rooms, according to conceptual plans the owner presented to the Town in 2014.

The Council-appointed Community Center Task Force has discussed options for a potential new senior center building—focusing on Town-owned land immediately to the west of the Bay-side YMCA, at Veterans Park. The plans have not proceeded past the conceptual stage, and the site for a new building remains an open question.

Other Facility Issues

Additional issues related to Town properties and facilities include:

- *Impact of Enrollment on School Facilities.* The projected school decline in enrollment will require evaluation of school facility needs to be factored in long term capital improvement planning.
- *Stormwater Facilities.* As demonstrated by the drainage improvements completed within rebuilt parking lots at Town Beach and Latham Park, infrastructure improvement projects provide an opportunity to retrofit sites with stormwater measures that improve water quality. The Town has an opportunity to complete stormwater improvements as part of a $4 million streets, sidewalks and drainage bond—which is funding street resurfacing projects throughout town—as well as the $1.6 million streetscape improvement bond for the Village Center. Conceptual plans for the streetscape project identified opportunities to reduce street widths to incorporate rain gardens and street trees along the street edge—benefitting water quality within the Brickyard Pond and the Barrington River watersheds. Other potential stormwater projects have been identified by Save the Bay, and discussed in the Natural Hazards element.
- *Stormwater Maintenance:* The Town also lacks GIS mapping data showing the location of all of the stormwater facilities in town—including retention basins and subsurface built as part of subdivision and land development projects. Improved GIS data would help the Town track maintenance of stormwater facilities, including those that are the responsibility of private parties such as homeowners associations.
- *Condition and use of docks at Town sites.* The Town is in the process of building a new park at the Police Cove site on the Barrington River; include in the plan, pending availability of funding, is a new transient boat dock near the boat ramp, which is scheduled to be replaced in 2015. The Town should evaluate whether the Harbormaster dock, also at the Police Cove site, should be modified to allow for public access in place of a new transient dock. Another dock facility that requires evaluation is at Walker Farm; that dock is also adjacent to a boat ramp that requires upgrades. Both ramps provide not only public access, but serve as critical emergency boat access for public safety purposes.
- *The Place.* The 5-acre site on Middle Highway, northeast of the Zion Bible Institute site, has remained vacant since the demolition of "The Place" in 2007. The building that once housed "The Place" teen center was demolished in 2007 due to structural concerns. The future use of the property has not been determined.

Public Water Needs

An ongoing, pivotal issue is one of future water supply. The East Bay Pipeline provides up to 7.5 mgd for Bristol County, more than sufficient to meet the current average daily demand of 3.12 mgd per day. However, the available capacity/cost is limited by contract with the Providence Water Supply Board, and BCWA is not fully prepared for a catastrophic event that could temporarily cut off the pipeline supply.

Water from the East Bay Pipeline is purchased from Providence and rates have almost doubled since 1998 when the pipeline was con-

[1] For more information, see http://www.agingcare.com/News/Senior-Centers-Prepare-for-Baby-Boomers-146476.htm

structed. Most recently, a 33.8 percent rate increase was requested for 2014, but was denied by the State Public Utilities Commission and limited to 2 percent. It can be assumed that Providence will be looking to increase rates significantly over the next few years.

There is also little redundancy or emergency back-up built into the current supply infrastructure. Water from the pipeline is pumped to the BCWA's system via the Barrington Booster Pump Station.

Should the service from Providence be interrupted, or the cross-bay pipeline or Nayatt Road pump station fail, the BCWA would need to reactivate the Child Street Water Treatment Plant. However, the treatment plant is not sufficient to meet the total demand of the service area. In addition, the treatment plant would be classified as non-potable until full testing determined compliance with the drinking water regulations, which would take several days.

To address the lack of sufficient alternative supply, the BCWA Board is looking to develop an interconnection with the Pawtucket Water Supply Board in partnership with the City of East Providence Water Department, with matching funds from the State of RI Water Interconnection program. The General Assembly did not include matching funds for the project in the State's FY2015 budget.

The BCWA Board intends to pursue funding for the project in the next General Assembly. The Authority's current 10-year, $37 million capital plan includes funding for the project based on the contribution from East Providence and the state matching funds. There will be pressure to raise water rates as the BCWA advances these plans, should the state not provide the matching funds.

Another issue is water pressure, and whether the local water distribution system is adequate to meet needs of future growth. The development of the Zion Bible Institute site as well as other sites, including Sowams Nursery in Hampden Meadows, will need careful evaluation to ensure water pressure is maintained.

Availability of adequate water is an issue in times of drought or extended dry periods (see discussion of drought in the Natural Hazards element). The Town's Emergency Operations Plan (EOP) provides a framework for the Town to respond to natural disasters; however, the current EOP lacks a section for responding to drought conditions. This should be revised to provide a water emergency response plan, describing the roles of the Town – such as communications and enactment of local ordinances – in coordination with the Bristol County and the Water Resources Board.

Regional Planning Issues

The Town works with adjacent communities on regional issues, including emergency response, public safety, provision of emergency shelters, purchasing and harbor management. Additional coordination with adjacent municipalities would help address regional planning issues such as:

- The use and management of public parcels adjacent to adjoining towns—such as open space/conservation properties on Wampanoag Trail near East Providence.
- Amendment of the State's Urban Services Boundary—which includes the George Street area, where there is no water or sewer, and adjacent agricultural lands in East Providence. The Future Land Use Map (Map LU-6) calls for relocating the boundary, which will require coordination with the State as well as East Providence.
- Future development in the George Street area in areas immediately adjacent to Barrington in Swansea and Seekonk, Massachusetts, and in East Providence.
- Planning for natural hazards, energy, transportation and other issues. For example, the Town should engage East Providence,

Energy issues related to municipal and school facilities are discussed in the Energy Element.

in addition to the State, on issues related to the effects of sea level rise on Wampanoag Trail (see also the Natural Hazards element) There also are opportunities – as discussed in the Energy element – to work with East Providence, Warren and Bristol on energy issues such as streetlight maintenance, should the Town acquire the streetlights from National Grid.

Sustainability

Barrington has historically embraced sustainability issues, as residents see the benefits of taking action to ensure the long-term sustainability of Town services and to make sure Town activities are carried out in an environmentally sensitive manner. The success of these efforts can be demonstrated by the Town's high rate of recycling, which minimize the environmental impact of household waste and reduces the costs paid for refuse collection, and by the Town Council's approval of a permanent ban on the distribution of plastic bags by retail and commercial businesses. Also, as described in the Energy element, the Town has made great strides in energy efficiency, reducing overall energy use in Town owned buildings by 14 percent since 2009.

In 2007, the Town Council charged the Conservation Commission to develop recommendations to "green" the Town. The Commission that year issued "Barrington Goes Green," a report outlining strategies the Town and Schools could explore for enhancing the community's overall sustainability, including expanding recycling efforts, instituting an environmentally preferable purchasing policy and replacing vehicles with hybrids or electric vehicles as part of the vehicle replacement schedule (an action considered under the Energy element).

Increasing the rate of recycling, as well as increasing overall energy efficiency, are environmentally responsible actions that also have a positive financial impact on the Town's budget. The Town should continue to make further progress on both issues.

The State Rhode Island Comprehensive Solid Waste Management Plan, released in April 2007 presented recommendations for managing solid waste and increasing the recycling rate. The State is now in the process of updating this plan, but recommendations outlined in 2007 included:

- Adopting a "Pay as You Throw" program whereby residents are charged for the collection of municipal solid waste based on the amount they throw away.
- Instituting a "No Bin, No Barrel" program requiring residents to set out at least one recycling bin along with their trash or their trash will not be picked up.

Other actions to be considered to enhance the long term sustainability of our community include continued efforts to preserve agricultural land (an issue addressed in other elements of this plan), and preparation for potential future state legislation that has recently passed regarding the compost of food waste.

Goals, Objectives, Policies and Actions

Goal CSF-1: Maintain high quality public facilities and services to meet the evolving needs of our residents of all ages.

Objective CSF-1.1: Make cost efficient and needed upgrades to enhance town and school facilities and municipal services.

Policy CSF-1.1.1: Maintain our facilities in a state of good repair to ensure reliable operations and limit unplanned expenses or investments.

Policy CSF-1.1.2: Follow federal and state policy and processes in order to preserve all options to use federal/state funds for school facility improvements.

Actions

A. Initiate and complete design of a new Middle School, through a process that engages the public. Emphasize energy efficiency and sustainable design.
B. Identify and secure available state and federal funding to support Middle School upgrades and for Stage II facility improvements as identified by the School Department.
C. Provide adequate capital funding through the sewer enterprise fund to provide financing to maintain and improve wastewater infrastructure. Investigate potential for establishing a capital reserve fund for other public works maintenance needs (sidewalks, stormwater, etc.)
D. Incorporate best management practices, where feasible, by retrofitting outdated drainage facilities within municipal and school parking lots and local streets, to limit stormwater runoff and enhance water quality. Develop watershed plans as needed to prioritize projects.
E. Continue to develop GIS data and provide necessary software and technology to allow Public Works to monitor the wastewater infrastructure to avoid disruptive failures, as well as assist with maintenance of stormwater facilities, to include information on maintenance responsibilities.
F. Evaluate the Harbormaster's dock at Police Cove and the public dock at Walker Farm to determine whether it needs to be upgraded or replaced.

Goal CSF-2: Anticipate long-term community needs, and advance facility expansion and enhancement efforts and additional services as needed to meet future demand.

Objective CSF-2.1: Complete assessments of long-range trends and needs for facilities and services, including schools, with public and other stakeholder input, every five years

Policy CSF-2.1.1: Determine long term operational and maintenance funding needs prior to advancing the enhancement or expansion of town facilities.

Policy CSF-2.1.2: Make optimum use of existing public facilities and land. Combine/ incorporate facilities when practical (e.g. Senior Center with housing, or intramural gym space or large town auditorium with Middle School, etc.)

Policy CSF-2.1.3: Work with adjoining East Bay communities to achieve efficient and cost effective solutions to regional concerns.

Actions

A. Support development of alternative water supply sources for the Bristol County Water Authority water supply that are independent of the East Bay Pipeline.
B. Promote water conservation practices to include:

- Develop policy for Town and School properties to reduce water usage through watering practices and use of xeriscaping on public grounds, including cemeteries
- Consider implementing a program to offer rain barrels at reduced cost to Barrington residents and businesses.
- Work with area farms that lease public or Land Trust property to develop and implement water use conservation plans for their operations.

C. Amend the Barrington Emergency Operations Plan to establish a water emergency response plan outlining responsibilities of the Town and Bristol County Water in coordinating and communicating with the Water Resources Board in response to water supply shortage events, in compliance with

Rhode Island Water 2030 – State Guide Plan Element 721. Plan shall address: implementation of water reduction strategies in times of dry summers and droughts, coordination of the response including identification of responsibilities among agencies, and effective public outreach strategies (see also Natural Hazards Goal NH-4, Action "B").

D. Complete the Library 5-year master plan.

E. Re-evaluate recommendations for a new community/senior center, including whether to renovate the existing senior center or to construct a new facility, and evaluate potential for efficiencies by combining with other efforts (such as the Middle School project, the proposed senior development at the former Zion Bible Institute campus, the planned YMCA Phase 2 expansion)

F. Determine impact of declining school enrollment on K-5 school facility needs, as part of the development of the capital improvement program.

G. Coordinate with abutting communities as part of the annual review of Comprehensive Plan implementation, on land use, transportation, open space, natural hazards and other multijurisdictional planning issues, including regulation of development in the George Street area.

H. Work with State, in coordination with East Providence, to amend State's Urban Services Boundary as shown on Maps LU-6 and LU-7 [see Land Use element]

I. Evaluate and rezone, as appropriate, public and quasi-public properties in transition, including the Town-owned land formerly occupied by "The Place," the Bristol County Water Authority facility on Nayatt Road, and the Hampden Meadows Volunteer Fire Department station.

Goal CSF-3: Limit the community's environmental impact through reductions in solid waste disposal and other sustainable activities.

See the Implementation element for information on implementation schedule, priorities, estimated costs, responsibilities and action types.

Objective CSF-3.1: Reduce solid waste disposal volumes by 10 percent by 2025.

Policy CSF-3.1.1: Employ strict recycling polices at Town facilities and schools.

Policy CSF-3.1.2: Encourage residents and commercial businesses to increase recycling rates through incentives and education.

Policy CSF-3.1.3: Maintain the town-wide ban on plastic bags at commercial establishments.

Actions

A. Periodically evaluate total solid waste amounts and recycling rates for Barrington to determine whether additional measures are needed to meet the Town's goals.

B. Expand efforts to encourage recycling at Town and School facilities.

C. Prepare for the new state law on composting. Assist commercial owners with compliance by 2016.

D. Develop a pilot program to encourage residential composting to limit solid waste (as this may be future state requirement)

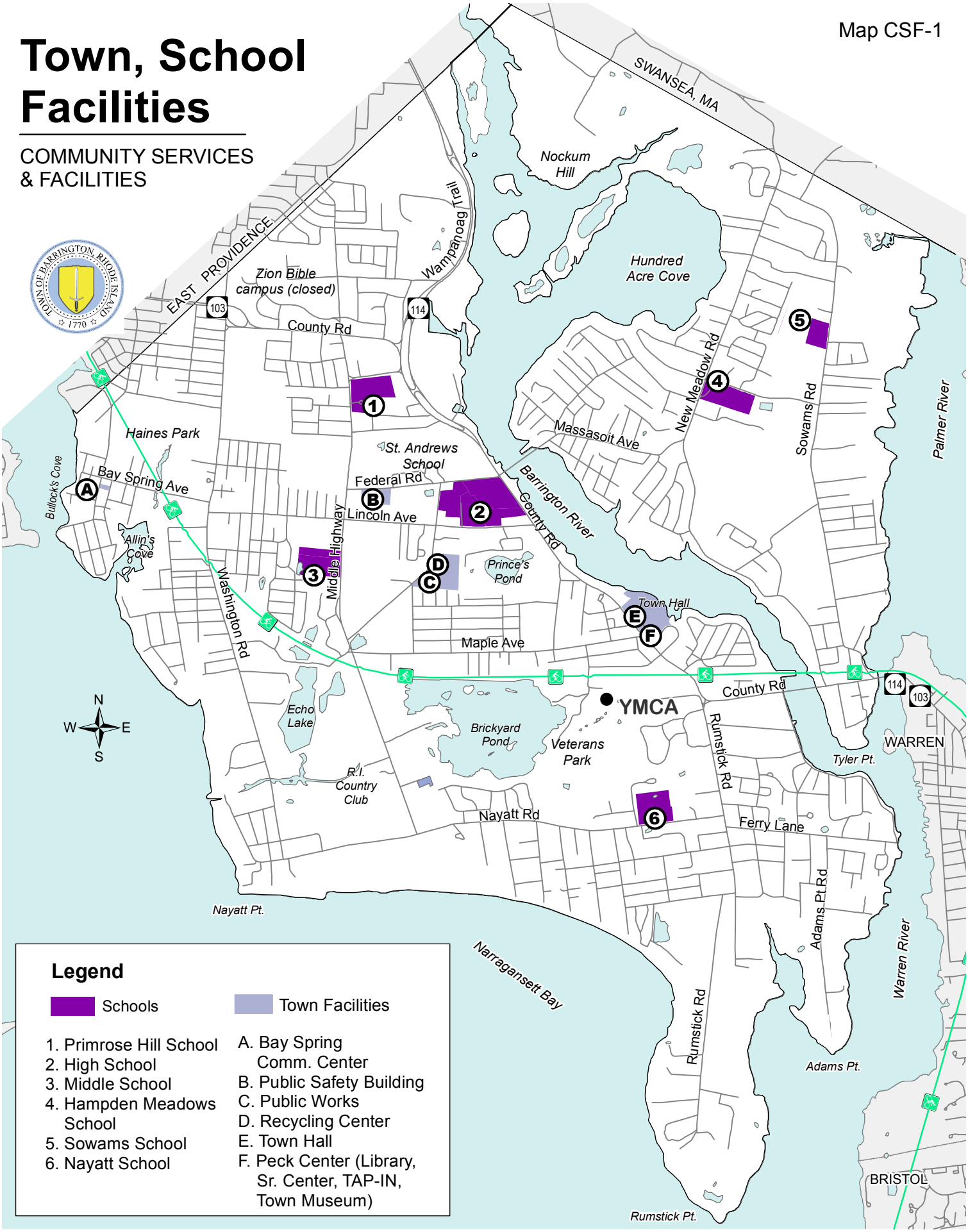
E. Evaluate programs or incentives (such as a "no-bin, no barrel" policy) and implement if feasible and cost-effective.

F. Assign responsibility for sustainability efforts to the Conservation Commission or a new committee with the charge to encourage/educate residents about sustainability, conservation, etc.

Town, School Facilities

COMMUNITY SERVICES & FACILITIES

Map CSF-1



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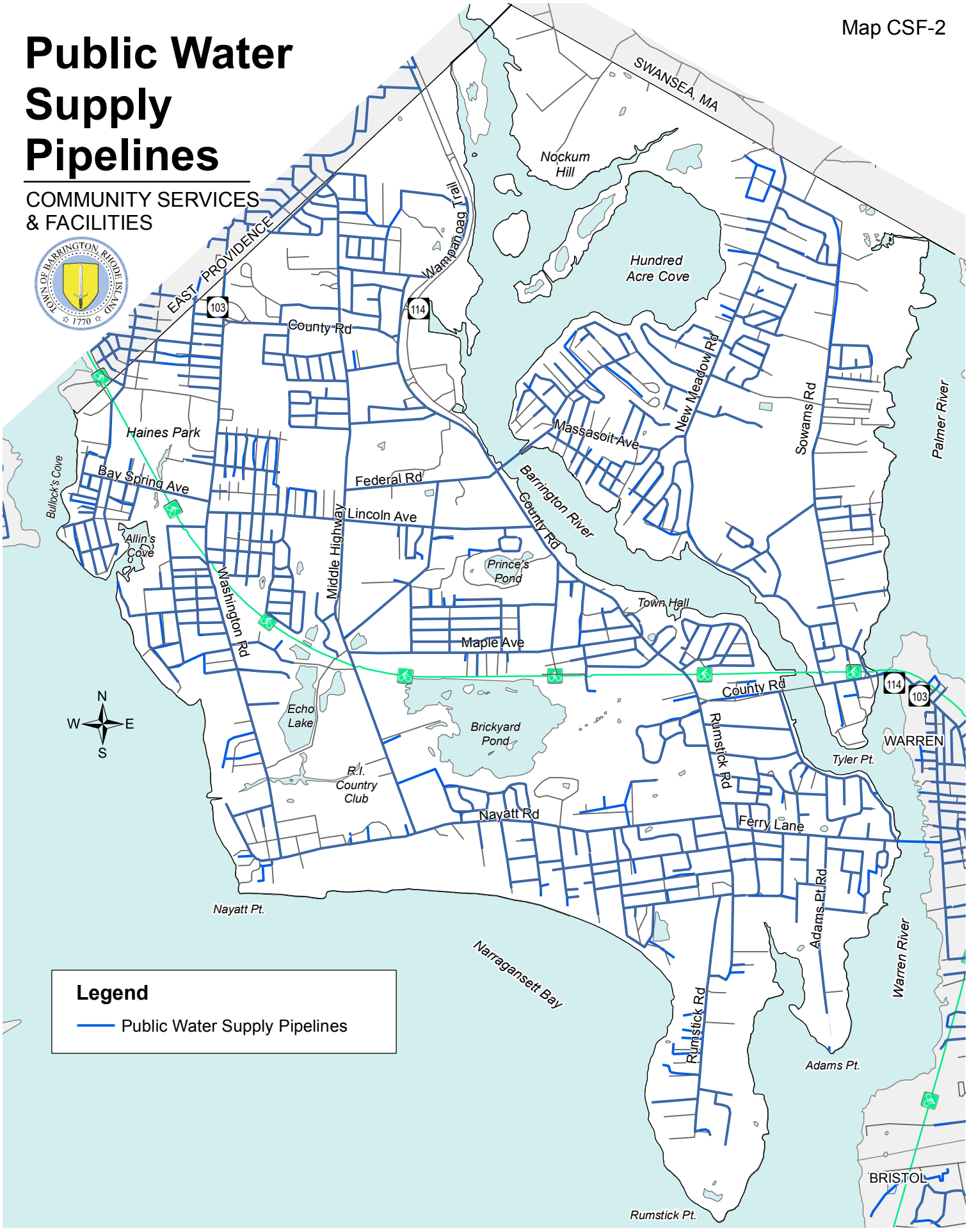
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Public Water Supply Pipelines

COMMUNITY SERVICES & FACILITIES

Map CSF-2



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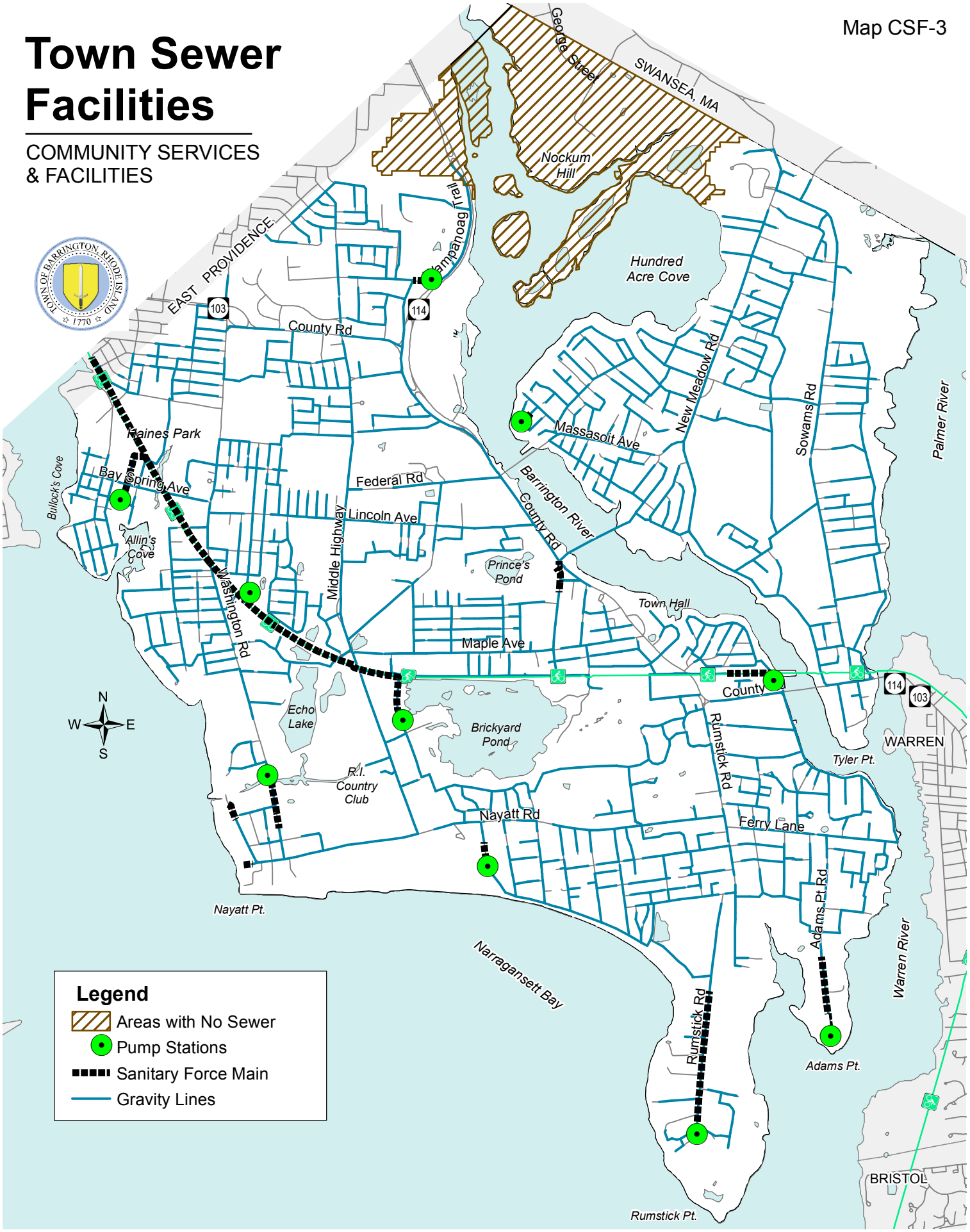
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Town Sewer Facilities

COMMUNITY SERVICES & FACILITIES

Map CSF-3



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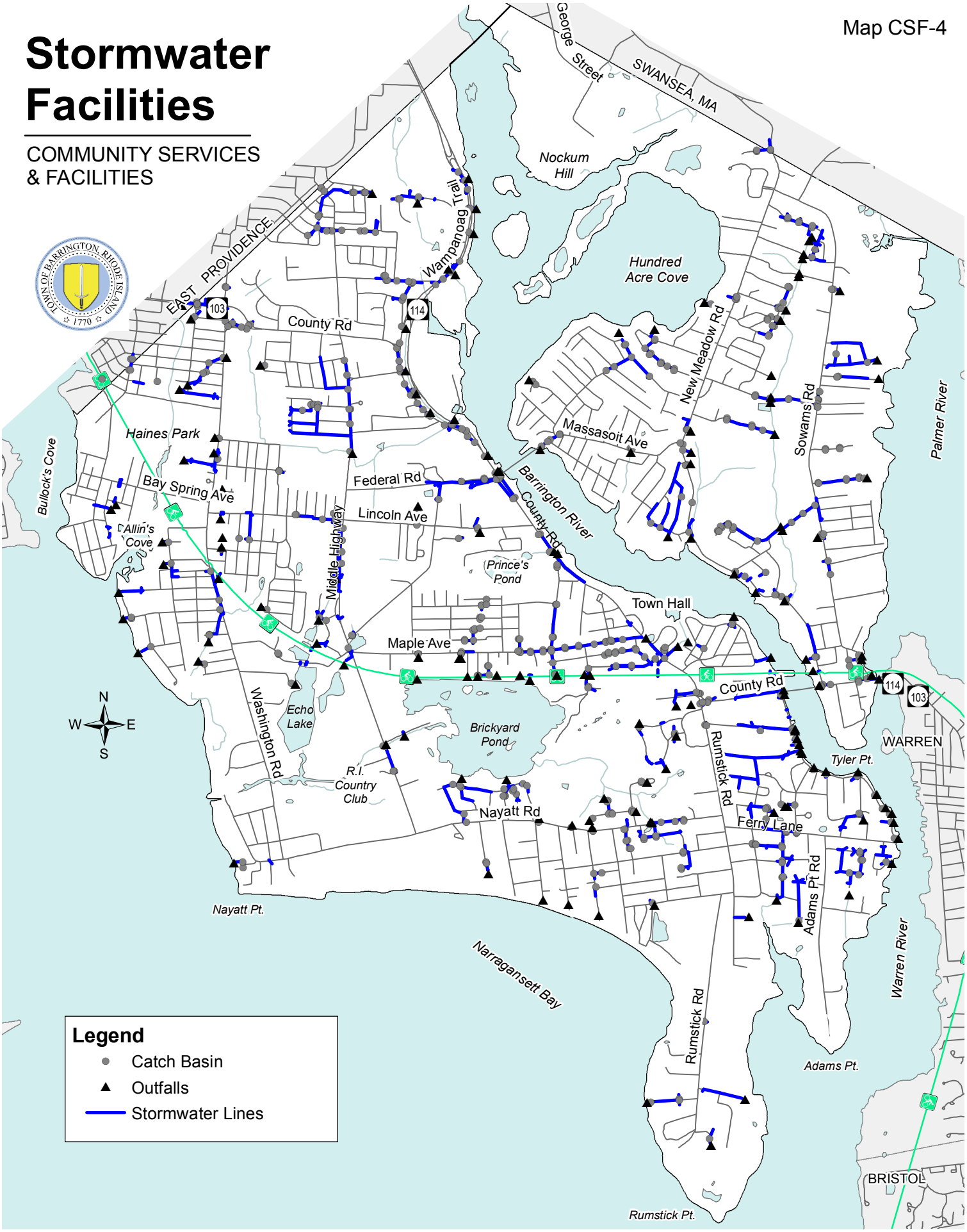
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Stormwater Facilities

COMMUNITY SERVICES & FACILITIES

Map CSF-4



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SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Impervious Surface

COMMUNITY SERVICES & FACILITIES

Map CSF-5

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SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

5 NATURAL & CULTURAL RESOURCES

Overview

Expansive views of Hundred Acre Cove. The facades of historic colonial homes. The white steeple of the Congregational Church. These are images that greet people entering Barrington on R.I. 114, the main route into Barrington from the north. The drive into town provides a picturesque snapshot of just one section of Barrington. There also are the shorelines, beaches and waters of Narragansett Bay and the Barrington and Palmer Rivers; the distinct neighborhoods of West Barrington, Hampden Meadows, Rumstick Road, and Alfred Drown; the agricultural lands in the northeast corner of town; and numerous outstanding historic buildings, including Town Hall, built in 1888. It is this abundance of natural resources, scenic landscapes and historic sites that give Barrington its special distinction, its sense of place.

One of the defining features of the community, Barrington's lengthy shoreline, also is becoming one of the most significant issues facing the Town. Going forward, risks of flooding and more frequent and damaging coastal storms are projected to rise,[1] underscoring the importance of protecting coastal and freshwater wetlands and other sensitive areas from development.

Existing Conditions

Natural Features

Wetland Areas

Most of Barrington's 955 acres of wetlands (see **Table 1** on the next page) are on conservation land owned by the Town, the State, the Land Conservation Trust, Audubon Society or otherwise protected. There are also several significant areas of freshwater wetlands in private

Osemequin Park (left) and Hundred Acre Cove

[1]See the Natural Hazards element

Table 1: Wetland Acreage, Barrington

Classification	Acres
Emergent Wetland: Marsh / Wet Meadow	23.0
Scrub-Shrub Swamp	56.5
Forested Wetland: Deciduous	402.5
Marine / Estuarine Shore	47.7
Estuarine Emergent Wetland	422.5
Estuarine Scrub-Shrub Wetland	3.2
Total	**955.4**

Source: RIGIS (1993 Wetlands data)

ownership throughout town. The wetland areas depicted on **Map NCR-1** are an approximation of wetlands generated by the RI Geographic Information System (RIGIS); there are other sites that could be classified as wetlands, but have not yet been identified by RIGIS.

The largest contiguous wetlands near the shoreline are around Hundred Acre Cove, the upper Barrington and Palmer Rivers, on Narragansett Bay at the RI Country Club and Tillinghast Estate, and on Rumstick Point.

Freshwater wetlands are found throughout town. The most significant areas include the Hampden Meadows "Greenbelt" between New Meadow Road and Sowams Road, the "Brickyard Wetlands" between the Barrington Shopping Center and the YMCA, those within the Tall Pines conservation area east of Washington Road near County Road, and the Divine Vargas wetlands west of Wampanoag Trail. Though relatively smaller in acreage, there are critical wetlands along Mussachuck Creek, which feeds into the bay north of Nayatt Point, and along Annawamscutt Brook, which empties into Allin's Cove.

Within the past decade, several projects have been completed that helped restore wetlands in critical areas:

- *Allin's Cove*. The $760,000 Allin's Cove restoration project, completed in 2006, was launched in order to restore approximately 11 acres of degraded coastal wetland at the mouth of Allin's Cove, as well as stop erosion of the shoreline along Byway Road.
- *Walker Farm*. The goal of the Walker Farm Marsh restoration, completed in 2005, was to increase the acreage of marsh to 15 acres and address problems created over the years from alterations of the site, including roads and dam structures.
- *Mussachuck Creek*. A project along Mussachuck Creek at the Rhode Island Country Club was completed in 2007. The work has contributed to the restoration of the Mussachuck Creek aquatic system.

Surface Water

Inland water bodies (lakes, ponds, creeks, streams) in Barrington total approximately 199 acres. The largest bodies of water include Brickyard Pond (105 acres), Echo Lake (22.5 acres) and Prince's (Tiffany) Pond (8.3 acres). Significant creeks include Annawumscutt Brook and Mussachuck Creek (discussed above).

Groundwater

Barrington's major groundwater resource, the Barrington aquifer, once provided Bristol County Water with significant quantities of water. The well field is within a larger area designated as the aquifer recharge (see Map NCR-1), which encompasses undeveloped areas, including woods, Veterans Park and Brickyard Pond and wetlands, as well as developed areas – neighborhoods and commercial properties along County Road and Maple Avenue. The Zoning Ordinance requires advisory review by the Conservation Commission of certain Planning and Zoning Board applications for sites within the Wellhead Recharge Overlay District.

Wildlife Habitat.

Three areas of Barrington have been identified by the Rhode Island Natural Heritage Program as rare or endangered species habitat areas (see Map NCR-1). The largest and most important area includes the Town-owned Nockum Hill

conservation parcels and marshland to the west. This land, bounding the north side of Hundred Acre Cove, serves as a nesting habitat for the Northern Diamondback Terrapin, a Rhode Island threatened species, which inhabits saltwater and brackish marshland and coves, while nesting in adjacent open sandy areas.

Another important habitat area in Barrington is the marshland and adjacent upland along the Palmer River, which supports at least five state listed species of plants and serves as a nesting site for the Seaside Sparrow and habitat for numerous other bird species. Other habitat areas include the Providence River marsh extending northward from the mouth of Mussachuck Creek, and the mostly wetland area along the east side of the Rumstick Point peninsula, across Smith Cove from Adams Point.

Flood Zones / Other Physical Constraints

Map NCR-2 depicts physical constraints to development, including the 100-year flood zone (having a 1 percent or greater chance of flooding in a given year) and the velocity zone (coastal area within the flood zone likely inundated by a wave surge during hurricanes). These areas, designated by the Federal Emergency Management Agency (FEMA), provide for necessary floodwater retention, but also present a safety hazard to existing and potential development. Proposed construction and other land development activities are subject to stricter building codes and more restrictive zoning and subdivision requirements. In addition to flood zones, other constraints include wetlands and hydric soils (severe constraints), high water table and steep slopes (moderate constraints).

In general, the areas with the most significant constraints to development are within proximity to the shore—the Palmer, Barrington or Warren Rivers, Narragansett Bay, Brickyard Pond and Hundred Acre Cove.

Flooding and other natural hazards are discussed in the Natural Hazards Element.

Scenic Views

In January 1990, the RI Department of Environmental Management completed an inventory of scenic areas throughout the State. Barrington was included within that portion of the state defined as the Narragansett Bay Area. Three areas in Barrington are identified in the state inventory, which are also designated on **Map NCR-3**:

- Hundred Acre Cove, as seen primarily from Wampanoag Trail.
- An area in the southwest corner of Barrington that includes Echo Lake, Mussachuck Creek, which flows from Brickyard Pond to the Providence River, and a portion of the Nayatt Point area. This scenic area was described as a nice combination of open land, woodland and wetlands.
- The Smith Cove Marsh, a wetland with varied vegetation. It includes all of the marshland and coastal area between Rumstick Point and Adams Point.

Both the Echo Lake and the Smith Cove sites were defined as distinctive landscape areas, having the highest visual appeal and containing a great deal of variety in form. The Hundred Acre Cove site was defined as noteworthy, an area of lesser but important scenic value.

Protected Open Space Parcels

The Town of Barrington, the Barrington Land Conservation Trust, Audubon Society and other private interests have acquired a substantial amount of open space throughout town, totaling more than 900 acres[1]. These properties, sorted by owner, are depicted on **Map NCR-4** and summarized below.

[1] There also are multi-use parks, described in the Outdoor Recreation element, with important natural features

- *Town- and State-Owned Properties.* The Town and State own many parcels of protected open space with conservation values. These parcels can be categorized as follows:

  ◊ *Natural Areas with Restricted Public Access* **(see Table 2**). The Town owns open space properties where public access is restricted on part or throughout the particular site due to the presence of environmentally sensitive areas such as coastal or freshwater wetlands, or endangered habitat areas. These sites lack sufficient upland suitable for development to convert to an active park. However, most of these lots have areas within which trails have been or could be extended such as the Hampden Meadows Greenbelt, which features a trail that follows a sewer easement through a forested wetland.

  ◊ *Natural Areas: Conservation Areas* (see **Table 3**, next page). The Town owns conservation properties—parcels with significant environmental constraints – totaling approximately 64 acres of land.

Parks and recreational needs are discussed in the Outdoor Recreation element.

The State owns approximately 39 acres of conservation lands – several small parcels in Hundred Acre Cove and properties at the tip of Rumstick Point. Public access in these areas is discouraged.

- *Privately Owned Properties*

  ◊ *Privately Owned Protected Open Space.* Within Barrington's town limits, approximately 110 acres of privately owned open space is protected by deed restriction or other similar mechanism. Properties with conservation zoning – Wildlife Resources, Conservation and Open Space-Passive – are also considered "protected", though it is possible these areas could be rezoned in the future. Much of the privately owned open space, in particular Land Trust holdings, is open to the public on a limited basis for passive recreation use (for example

Table 2: Natural Areas with Trails/Accessible Areas—Publicly Owned Properties

Use	Location	Acreage	Uses
Town Properties			
Allin's Cove	Allin's Cove, Willow Way, Ocean Ave.	2.45 acres	Conservation land with restricted public access
Former "Vitullo Farm"	West of Wampanoag Trail	29.25 acres	Community garden, future trails
Tall Cedars	East of Washington Road	33.04 acres (excludes 8 acres owned by BCLT)	Conservation land; drainage
Osamequin Park	East of Wampanoag Trail, on 100-Acre Cove	28.43 acres	Trails, bird sanctuary; parking on Wampanoag Trail
Walker's Farm	Wampanoag Trail, Barrington River	48.53 acres	Conservation land; boat launch, community gardens, yard waste disposal area
Prince's Pond	West of County Rd, east of Upland Way	25 acres	Conservation land; trail around pond
Brickyard Wetlands	Btwn YMCA, Bosworth St. end	10.1 acres	Conservation land, trails
Hampden Meadows "Greenbelt"	Between Christine Drive and Linden Road	126.8 acres	Conservation land, trails
Rayner Wildlife Refuge at Nockum Hill	SW of George Street, 100-Acre Cove	40.3 acres	Conservation land, wildlife/bird sanctuary, trails
Total		**343.90 acres**	

Source: Tax Assessor Database, Town Open Space Plan (2011)

Table 3: Conservation Areas—Publicly Owned Parcels

Site	Location	Acreage	Uses
Town of Barrington			
Divine Vargas	Wampanoag Trail	46.4 acres	Conservation land
Washington Road	South of Bike Path across from Bicknell Park	9.16 acres	Conservation land
Smith's Cove	Smith's Cove, south of Quincy Adams Rd.	5.1 acres	Conservation land
Palmer River	Palmer River, near Johannis Farm	0.75 acres	Conservation land
Subtotal: Town		61.41 acres	
State of Rhode Island			
Rumstick Point	End of Rumstick Road, on Rumstick Point	27.4 acres	Coastal wetlands, shoreline
Calf's Tongue	100-Acre Cove	5.4 acres	Coastal wetlands
Island in 100-Acre Cove	100-Acre Cove	3.6 acres	Undeveloped island
Great Tongue	100-Acre Cove	2.55 acres	Coastal wetlands
Subtotal: State		38.95 acres	
Total		**100.36 acres**	

trails), while others are not open to the public. The Barrington Land Conservation Trust and Audubon Society are the two largest private owners of open space within the town.

Unprotected Open Space Parcels

Properties that have conservation values that remain unprotected are as follows:

- *Privately Owned Parcels Containing Conservation Values.* The majority of privately owned open spaces in Barrington are not permanently protected and therefore may be available for development, though environmental restrictions such as the presence of wetlands are found on many of these parcels. Privately owned open space that have not been protected in perpetuity include institutional sites that also contain significant open space areas with conservation values. These include: the former Zion Bible Institute campus (a section of forested wetlands); St. Andrews School (forested wetlands in the westerly portion of the site); Tillinghast Estate, owned by the RI School of Design (coastal wetlands); and the RI Country Club (coastal wetlands, Mussachuck Creek).
- *Privately Owned Parcels Containing Agricultural Values.* Two large parcels on George Street, zoned Residence 40-Conservation Development, are currently unprotected—leaving an area of prime farmland with no water or sewer or adequate roads at risk to development. Approximately 24 acres of land, mostly active farmland, are in the Farm Forest and Open Space Program but not permanently protected.[2]
- *Unprotected Open Space – Unknown Owners.* Along the shoreline of the Palmer River, Hundred Acre Cove and Allin's Cove are open space lots of unknown ownership. These lots, totaling approximately 90 acres, all have severe environmental constraints – including several partially underwater. They also are located near protected open space areas owned by the Town, the Land Conservation Trust and the Audubon Society.

Agricultural Lands

About 200 acres in town are in agricultural use. The northeast section (George Street area) of Barrington is the largest contiguous agricultural area. The Town has zoned the area, which lacks access to city water and sewer, for single-family

[2] An additional 8.7 acres of protected agricultural land are in the program (Town purchased development rights).

Figure 1: Allen-West House, George Street

Allen-West House, George Street

detached houses on large lots (Residence 40-Conservation Development) and conservation/ resource protection (Wildlife Refuge, Open Space-Passive and Conservation zoning).

The Town leases approximately 40 acres within the George Street area (see Number "1" on **Map NCR-5**) to Four-Town Farm for farming operations. These soils are considered prime farmland, classified by the State as "Agricultural Soils of Statewide Importance." The George Street area is the last remaining area where farming activity occurs on any significant scale in Barrington. The Town's two community gardens—the Barrington Community Garden (one to two acres) at the former "Vitullo Farm" site, and the Walker Farm site (one acre) – have prime agricultural soils, but are also within the floodplain.

There are many areas within Barrington with soils suitable for agricultural use according to the State; however, most of these areas are either developed residential areas or used for other purposes, such as St. Andrew's School, Haines Park, the RI Country Club, Veterans Memorial Park, Town Hall, and several cemeteries.

Cultural Resources

Historic Sites and Buildings

The Town has a wealth of historically significant properties, most notably the Civic Center Historic District along County Road. This National Register District includes Town Hall, the Peck Center (Library/Senior Center), Prince's Hill Cemetery and Wood Pond. Barrington properties on the National Register (see **Map NCR-6**) have changed in recent years, with the addition of the Alfred Drown historic district in 2005 and the Jennys Lane historic district in 2008.

In December 2013, the Allen-West House (see **Figure 1**) at 153 George Street was listed on the National Register of Historic Places. The circa 1763 house was once part of a large farmstead consisting of more than 100 acres. The area also has historic significance, which is recognized by a large stone monument installed in 1905 that commemorates the location of the Baptist church built in the 1660s.

Projects impacting the Civic Center Historic District are reviewed by the Town Council on a case-by-case basis. Projects impacting the exterior of

Town Hall or the surrounding grounds also require the involvement and approval of the Rhode Island Historical Preservation and Heritage Commission, which holds a historic preservation easement on the Town Hall and surrounding property. In 2007, the Town received a $50,000 State Preservation Grant to replace the Town Hall roof and re-paint the woodwork in historic colors that met the approval of this commission.

One of Barrington's most iconic structures, the 50,000-square-foot Belton Court, is listed on the National Register and formerly used by the Zion Bible Institute. Belton Court, along with the entire 40-acre Zion Bible campus, was acquired at auction in 2011. Most of the buildings have remained vacant since, but the new owner is proposing a senior residential community, including restoration and re-use of Belton Court (discussed in the Housing & Neighborhoods element and Appendix II). Most of the other buildings, none historically significant, would be demolished to make room for the proposed development.

The Barrington Preservation Society, chartered by the State in 1965, is the town's principal force for historic preservation. The Society occupies space on the ground level of the Town Library. The room houses the Town Museum, archival storage of artifacts and town records.

Through its on-going Plaque Program, the society has identified approximately 160 private and public buildings that are at least 100 years in age and retain their architectural integrity. This program led to the society initiating and supporting the effort in 2004 to list the Alfred Drown Historic District and again in 2006 to list the Jennys Lane Historic District in the National Register of Historic Sites and Places. The society has provided advice to the town on preservation issues and will continue to play an active role in the designation and promotion of additional sites for listing in the National Register.

The Town also has several historic cemeteries—including Tyler Point, Watson, Allin, Forest Chapel and Prince's Hill. The Barrington Cemetery Commission has oversight and is responsible for maintenance of these sites.

Regulation of Development Impacts

The Town has adopted measures to help protect natural and cultural resources, including the following:

- *Wetlands Overlay District.* Barrington has stringent wetland protections in effect, with the adoption of the Wetlands Overlay District Zoning Ordinance, established as part of the Zoning Ordinance rewrite in 1994 (Article XXV). It requires the granting of a special use permit by the Zoning Board of Review, with advisory review by the Conservation Commission, prior to any development within 100 feet of either a coastal wetland or a freshwater wetland one-half acre or greater in size. The Wetlands Overlay District is more restrictive than State regulations requiring RIDEM approval for activity within 50 feet of a wetland. A 100-foot wetland setback, however, is a preferable standard in Barrington, where pressure to develop marginal sites will only increase as the community approaches build out.

  Most applications for special use permits related to the wetland buffer are granted. From January 2010 through August 2014, for example, 42 special use permit applications were before the Zoning Board for encroachment into the wetland buffer. Of these, 38 were granted, while two were denied (and two withdrawn).

- *Groundwater Recharge Area.* Development proposed within the recharge area, as mapped on Map NCR-1, requires advisory review by the Conservation Commission.

- *Historic Sites—Review.* The Town does not have any local historic districts or a historic district commission. The Town has put in place additional review standards for development projects that abut or are within 200 feet of an historic property listed on the National and State Registers of Historic Places (Sec. 185-160 of the Zoning Ordinance).
- *Developer Guidance-Belton Court.* The Developer Guidance (Appendix II of the Comprehensive Plan) for the former Zion Bible Institute campus incentivizes the restoration of Belton Court, one of the Town's most significant privately owned historic properties, through the provision of a density bonus. The guidance states: Belton Court "shall be restored in a manner that is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties. The historic grounds associated with Belton Court shall be preserved."

Other Standards

- *Stormwater design.* Applicants for qualifying development activity must develop and submit a stormwater management plan consistent with the Rhode Island Stormwater Design and Installation Standards Manual and the Rhode Island Soil Erosion and Sediment Control Handbook. The Planning Board in recent years has approved plans with low impact development features, such as at Walker Farm Lane, where surface runoff from the street drains into a retention pond, rather than through culverts and pipes; the development features narrow street widths and pervious pavement for on-street parking spaces and driveways. The Board has also granted waivers allowing private streets for subdivisions of up to two lots, allowing access through shared driveways that require much less pavement compared to development of a street to Town standards.
- *Lighting standards.* The Town's standards require cut-off lighting fixtures in new parking lots; photometric plans are required to demonstrate neighboring properties will not be impacted by light pollution.
- *Cell towers.* Cell towers, with the associated ground-mounted equipment and access road, can negatively impact scenic resources and conservation areas. The Town in 2012 adopted Zoning Ordinance amendments requiring an analysis of colocation opportunities and compliance with design standards (Sec. 185-209 of the Zoning Ordinance) as part of the cellular tower development plan review and special use permit process.

Open Space Protections and Incentives

Techniques to protect open space utilized by the Town, Land Trust and others include:

- *Land Acquisitions—Town.* The Town has had success protecting properties through land acquisition. Recent acquisitions, since 2000, include:
  - ◊ *St. Andrews Farm, Middle Highway.* The Town acquired the 28.5-acre tract from St. Andrews School for active and passive recreation. The rear of the site consists of an open field to be preserved for passive recreation.
  - ◊ *Sowams Road open space parcel.* An upland area within the 5.9-acre site near Sowams Road has been converted to a practice field with parking. The rear portion of the site, within the "Hampden Meadows Greenbelt," has the potential for new trails.
  - ◊ *The "Brickyard Wetlands."* Property is located between the Barrington Shopping Center and the YMCA. The 10-acre site, which is mostly wetlands, was purchased using State Open Space bond funds with a local match; a conservation easement restricts the type of activities and land disturbances that may take place at the site.
  - ◊ *Vitullo Farm* on Wampanoag Trail. A section of the former farm just off Wampanoag Trail was converted in

2014 for use as the Barrington Community Garden. Environmental constraints include wetlands and a high water table. The Town has plans to install a gravel parking lot and to relocate the driveway that provides access from Wampanoag Trail.

◊ *George Street parcel.* In 2009, the Cemetery Commission acquired approximately seven acres of upland in the George Street area for a future cemetery. The site includes a small section of coastal marsh on Hundred Acre Cove.

- *Land Acquisitions—Land Conservation Trust.* The Land Trust also has played a vital role in protecting sensitive properties throughout Barrington. One of the more significant acquisitions was made in 2007, with the purchase of "Sowams Woods" on Washington Road. The 12.3-acre site, which abuts Echo Lake, was purchased from RI Country Club using several funding sources. A conservation easement is in place for the site, which features a Native American archaeological site. The Land Trust has established trails on the property. Sowams Woods is included in the Land Trust's proposed "Sowams National Heritage District" (discussed in detail in the Issues and Opportunities section).

- *Land Donations.* The Town and Land Trust has also acquired several properties in recent years through land donations—including two acres that abutted the Town's Hampden Meadows Greenbelt (Town acquisition).

- *Acquisition of Development Rights.* In one instance, the Town protected property from development by acquiring development rights. This was put in place on 8.7 acres of farmland and coastal wetlands owned by Four-Town Farm. The Town acquired the development rights in the early 1990s in exchange for allowing Four-Town Farm to lease Town property off George Street for 20 years.

- *Farm, Forest and Open Space Program.* The Farm Forest and Open Space Program is a tax incentive program that helps to achieve open space protection, but does not provide permanent protection. The program is intended to encourage property owners to manage their land for forestry, agriculture, and open space. Property owners enter into an agreement with the Town to keep their properties undeveloped for at least 15 years in exchange for lower property tax assessments. Should a property owner decide to remove land that has been designated under the tax program, back taxes would be owed to the Town. As such, these properties are not protected in perpetuity, unless, for example, there is also a permanent conservation easement in place.

  As noted previously, lots farmed by Four-Town Farm in the George Street area represent the largest acreage of any property owner in the program, totaling 33 acres (this includes an 8.7-acre parcel where the Town acquired the development rights). Three residential properties, each with a small area for a house, are in the program as well, totaling 28 acres.

Issues and Opportunities

Future Land Acquisitions

Protection / Acquisition Priorities

Acquisitions of significant parcels throughout town for conservation and open space protection purposes may become more difficult over time due to the increasing land values associated with the limited supply of available property in town, in particular with regard to developable upland outside conservation areas. Acquisition criteria as well as input on proposed land acquisitions from groups with potentially com-

peting interests — such as the Park and Recreation Commission, Cemetery Commission, Conservation Commission and Housing Board of Trustees — would help the Town weigh potential future uses of various sites.

The Town's Open Space Plan, presented to the Town Council in November 2011, offer a set of criteria for evaluating acquisition of conservation/open space properties. Though these criteria have not been formally adopted as official Town policy; the Planning Board has used them as a basis to evaluate and submit recommendations to the Town Council of requests for property donations offered by private landowners.

Properties of Unknown Ownership

Acquisition of conservation/open space properties is typically a straightforward negotiation between the Town or other party such as the Land Trust and the property owner. However, this is not possible in every situation, in particular where, ownership of parcels with conservation value is unknown. While many of these lots of unknown ownership are either within wetlands or even submerged, making development in these areas highly unlikely, acquisition would help create a band of protected area and clarify ownership and, therefore, management responsibilities. Targeted acquisitions in other habitat areas would also provide an additional level of protection for these important sites.

Zoning—Conservation Parcels

The Town completed a town-wide Zoning Map update in 2012, for consistency with the Future Land Use Map. A number of protected open space properties, including St. Andrews Farm and other parcels acquired by the Town, were rezoned to zoning designations reflecting the long-term intended conservation or recreational use of the sites. The Town has just one remaining property that was identified but not included in the rezoning effort—a section of Business-zoned property that is the rear portion of a parcel in the Farm, Forest and Open Space program. This area is just south of a 10-acre parcel with sensitive wetlands—the "Brickyard Wetlands" site owned by the Town, located between the Barrington Shopping Center and the Bayside YMCA. That site was rezoned from Business to Open Space-Passive in 2012. The remaining Business-zoned area recommended for rezoning is identified in the Land Use element—see Map LU-7.

Planning for Impacts of Sea Level Rise on Coastal Wetlands

Coastal marshes are highly susceptible to impacts of sea level rise[3] due to increases in inundation. These marshes over time will migrate inland—provided there are adjacent areas allowing for this migration to occur. Barrington already has a significant amount of coastal wetlands already inundated at mean high tide. **Map NCR-7** shows additional coastal wetland areas that would become inundated with one, three and five feet of SLR. The largest areas susceptible to inundation are around One Hundred Acre Cove, along the shores of the Palmer River, at Allin's Cove, at the RI Country Club and Tillinghast Estate south of Nayatt Road near the shore, and at Rumstick Point and Smith Cove. There are very few areas of coastal marsh that would not become inundated with five feet of SLR.

A more detailed analysis of impacts of SLR on coastal marshes has been developed by the RI Coastal Resources Management Council (CRMC), in partnership with other agencies and organizations. The Sea Level Affecting Marshes Model (SLAMM) maps depict specific areas where marsh migration might occur—based on factors such as topography as well as impacts of roads, parking lots and other development.[4]

[3] Impacts of sea level rise are discussed in greater detail in the Natural Hazards element.
[4] The SLAMM maps can be examined at the Council's office in Wakefield, at the Secretary of State's office, and online at the Council's website: www.crmc.ri.gov.

The SLAMM maps are an excellent tool for future open space acquisition planning and prioritizing adaptation projects, such as those discussed in the Natural Hazards element. Map NCR-7 shows that many of the parcels with coastal marshes are already protected. However, there are other marsh areas, such as at the Country Club and Tillinghast Estate as well as other privately owned properties, that are vulnerable to SLR but without permanent protection. (It should be noted that Save the Bay has completed multiple marsh restoration projects the Country Club and Tillinghast Estate.)

Effectiveness of Regulations

The Town should consider the following actions related to review of development impacts on natural and cultural resources.

Improve Wetland Protections

The Town uses the RIGIS wetlands mapping (see Map NCR-1) as a guide for identifying whether a proposed project could impact the 100-foot wetlands buffer. The wetland mapping is based on interpretation of 1988 aerial photography to one quarter acre polygon resolution, according to RIGIS. The wetlands depicted in this Comprehensive Plan maps utilize the RIGIS data, which are effective for showing general wetland areas. An accurate wetlands edge requires delineation in the field by a wetlands biologist, which is cost-prohibitive at the town-wide level. The Town, however, should take reasonable steps to ensure the GIS data showing the State wetlands in relation to Town parcels is as accurate as possible.

It is recommended that the Town engage in a five-year budgeted (or otherwise funded) program to research, inventory, and digitally map all wetlands in town. The primary goal of this inventory would be to establish more accurate existing wetland edges, identify wetland types and jurisdictions, document distance from existing structures, and map interconnections between wetlands and other water bodies, including larger rivers and bay. This activity would have the following benefits:

- Ensure that the town is adequately regulating its wetland resources by identifying all structures in proximity to wetlands;
- Build an understanding of hydrological flow configurations in coastal, inland areas; and
- Identify opportunities to protect areas to allow for coastal marsh migration resulting from sea level rise.

This effort should help identify potential violations of approvals related to wetland permits, as issued by the Town as well as the State. This could be accomplished through evaluation of aerial photography together with the approved site plans, based on the updated wetland data.

Eliminate Groundwater Overlay Review

The Town's requirements for review of projects within the Nayatt groundwater recharge area should be re-evaluated in the context of the feasibility and future need of the aquifer being brought online as a water supply. Currently the Water Authority is proceeding with other options for secondary sources of drinking water and has no plans to bring the Nayatt well field facilities back on-line (see discussion in Community Services & Facilities). One of the challenges is saltwater intrusion into the aquifer—which, according to CRMC, will only worsen in the future with increases in sea level (discussed in the Natural Hazards element).

Given the Nayatt well field's lack of viability as a groundwater resource, the Town should eliminate as unnecessary the requirement that subdivisions and other development applications receive an advisory review of the plans from the Conservation Commission.

Water Quality

Surface Water

Water quality remains a concern in Barrington, where degraded conditions persist in several water bodies, including Brickyard Pond,

Prince's Pond, the Barrington River/Hundred Acre Cove and Echo Lake. The Town will need to continue to work to develop and implement water quality plans and projects, which have included the following:

- *Brickyard Pond.* Brickyard Pond was included in a 2007 RI Department of Environmental Management study of impaired ponds. The study identified high phosphorus and low dissolved oxygen levels, with problems linked to sources such as stormwater runoff, waterfowl, shoreline erosion, and internal cycling. In September 2007, the Office of Water Resources at RIDEM released a Total Maximum Daily Load (TMDL) study to address water quality concerns, predominantly phosphorous loadings, in Brickyard and other sites in Rhode Island. The Town is in the process of identifying actions to bring the Pond into compliance with the TMDL.
- *Prince's Pond.* Prince's Pond (also known as Tiffany Pond) is on the State's list of impaired waters for phosphorous and dissolved oxygen.
- *Palmer River.* The Palmer River (not included in the above acreage) also is listed as impaired, from the Massachusetts/Rhode Island line to the East Bay Bike Path trestle, due to nitrogen and dissolved oxygen levels and fecal coliform.
- *Hundred Acre Cove.* Hundred Acre Cove continues to be affected by increased bacterial levels, in particular due to upstream sources of stormwater runoff. A shellfishing ban in place at Hundred Acre Cove since the early 1990s remains in effect today. A RIDEM Total Maximum Daily Loads study for Hundred Acre Cove, as was completed for Brickyard Pond, is in the planning stages.
- *Echo Lake.* Recent projects have helped to improve conditions of Echo Lake. A $6 million project undertaken by the Rhode Island Country Club has helped improve flow through Mussachuck Creek to Narragansett Bay. It is hoped that the improved conditions will allow herring to reach breeding areas in Echo Lake and Brickyard Pond and provide a less conducive environment for the invasive weed phragmites.

Management of Open Space

Another issue relates to the management of conservation lands held in public and private ownership. The Conservation Commission and Barrington Conservation Land Trust have advocated adopting and enforcing Management Plans for Town-owned conservation lands across Barrington. Concerns include encroachments from neighboring parcels, enforcement of easements, illegal dumping and other activities, and people accessing environmentally sensitive areas.

Management plans developed for Nockum Hill and Hundred Acre Cove, the Hampden Meadows "Greenbelt," and Brickyard Pond have been partially implemented.

Comprehensive Management Plans provide a framework for the protection of publicly owned or otherwise protected conservation lands. In general, each management plan includes a description of the area's significant characteristics and features, management objectives and implementation plan. The Town owns a substantial number of conservation lands. Conservation areas in private ownership also deserve special attention, as they represent a significant amount of land area throughout town. Comprehensive management plans are important as they provide site-specific objectives and strategies for the continual protection of these areas.

Typical elements of management plans include:

- Control of hydrological characteristics.
- Removal or control of nuisance, exotic, plant and animal species.
- Preservation of native vegetation.
- Maintenance of habitat corridors.
- Encroachments from abutters.
- Enforcement of easements.

The Town should also encourage development of Management Plans for privately owned conservation areas. Plans for Land Trust and Town conservation lands should articulate a consistent vision, given many of these parcels are in proximity to one another. An example is the "Sowams Woods" parcel which is adjacent to or near Town-owned open space / conservation lands. Other groups will be encouraged to develop management plans as well. For example, the Audubon Society owns a number of important conservation parcels, including property along the Palmer River and adjacent to Haines Park.

An issue to be evaluated in the Nockum Hill Management Plan is the extent of the Diamondback Terrapins' habitat area. The Land Trust has reported witnessing terrapins in areas beyond the Habitat Area mapped by the State (see Map NCR-1). Additional study of Area 1a depicted on Map NCR-1 is recommended to determine whether the mapped habitat area should be enlarged.

Sowams National Heritage District

The Land Trust, an owner of open space properties a throughout Town, has proposed establishment of the "Sowams National Heritage District" in the Echo Lake/Brickyard Pond area. The district would be a more comprehensive approach to managing this area, focusing on the area including the Land Trust's Sowams Woods parcel on Washington Road, Echo Lake and Brickyard Pond. The proposed district includes:

- *Open Space.* The proposed area includes approximately 350 acres already protected by the Town of Barrington and other large tracts of open land.
- *Natural Habitat.* The proposed area includes the watershed of Big Mussachuck Creek, one of just 18 original herring runs remaining in Rhode Island. The rich and varied habitats also provide forage and shelter for birds seasonally migrating along the eastern North American flyway. Unprotected endangered and threatened plant species are present as well as numerous uncontrolled invasive plants.
- *Passive Recreation.* The district includes a central portion of the East Bay Bike Path, the oldest and most popular bike path in the state which is part of the national East Coast Greenway running from Florida to Maine. Biking trails could be added. Year round opportunities for hiking, fishing, picnicking, bird-watching and biking with important coastal access.
- *Historic Resources.* The district includes at least three layers of history each eligible for the National Register of Historic Places:
  - ◊ Native American Archeological site: 5,500-year-old Archaic Period crescent shaped stone hearths unique in Northeast adjacent to burial mounds. Historical Pokanoket territory of Sowams including village sites.
  - ◊ The Brickworks site long proposed for historic recognition, as an archaeological district (see Map NCR-6).
  - ◊ A nearly century-old championship, 18-hole golf course designed by the legendary course architect Donald Ross. Landscape plans by the renowned Olmstead Brothers are in the National Archives.
- *Scenic.* The area's roadways included on state scenic map offer expansive views of Narragansett Bay and green open space views. Echo Lake/Mussachuck Creek is a State-designated scenic area.

A management plan would build on the area's unique features cited above and target key goals for the district, potentially helping leverage grants and private funds to protect and highlight the unique qualities of the area, including additional conservation acquisitions or easements. A district approach could be partic-

Figure 2: Nayatt Lighthouse

Nayatt Point Lighthouse, a property listed on the National Register

ularly helpful in coordinating efforts to control invasive plants and to improve water quality throughout the herring run.

Preservation of Historic Properties

Of all of the historic sites in Barrington, the future of the 50,000-square-foot Belton Court, once used for office and classroom space at the Zion Bible Institute campus, is a significant preservation issue. Zion Bible Institute in the summer of 2008 moved its operations to a new campus in Massachusetts, after years of struggling to maintain Belton Court and other campus buildings as well as comply with more stringent fire codes.

The future use of the campus and Belton Court is almost certain to change, as a developer has the campus property under a purchase and sale agreement (the issue of the development of the site is addressed in other areas of this Plan as well). Restoration of Belton Court (listed in the National Register in 1976) in an historically sensitive manner will require a significant investment.

Another important public building is the century-old Bay Spring Community Center on Narragansett Avenue. In 2006, the building was determined as eligible for nomination to the State Register by a vote of the State Historical Preservation and Heritage Commission. The Town has since renovated the building, including providing ADA access to the second floor. Given the Town's commitment to utilize the building, the Town should pursue applying to list the property on the National Register of Historic Places.

An ongoing concern relates to development pressure on not only properties on the Historic Register, but also Barrington's existing neighborhoods established 50 or more years ago. For a suburban town of many single family houses, these neighborhoods represent the essential qualities that define Barrington. With the exception of the Alfred Drown Road and Jennys Lane National Register Districts, the only privately owned residential properties with the Historic Register designation are individual homes.

The Town should pursue applications for additional National Register Districts. Map NCR-6 recommends several districts for further study. These areas, most of which have multiple houses that have historic plaques from the Preservation Society, are:

- *The Nockum Hill/George Street area.* Nockum Hill is the site of the founding of three towns – Barrington, Warren and Swansea, MA. Research by the Barrington Preservation Society suggests the area has major historical and religious significance as the possible site of the first Baptist meeting house building in the country.
- *Johannis Farm.* This historic farm on Sowams Road contains agricultural fields, ponds, woodland and marsh on the Palmer River.
- *Lincoln Avenue from Washington Road to Townsend Street.* Seven houses, ranging in date from 1870 to 1915, have been researched and plaqued by BPS, reflecting the popularity of this neighborhood as a residential district for commuters.
- *St. Andrews School.* The original complex of Saint Andrews Industrial School, (founded in 1893) contains significant Shingle Style and Georgian Revival institutional buildings and has been previously recommended for listing in the National Register.
- *Nayatt Point.* Approximately 30 houses along Nayatt Road, plus Elm Street and Glen Avenue, would comprise the Nayatt Point Historic District. This neighborhood illustrates Nayatt Point's history from development in the 1850s as a summer resort, with the Bay House Hotel and ferry landing through the early twentieth century with construction of elaborate Victorian and Colonial Revival summer houses, designed by the State's leading architects for the industrial leaders of Rhode Island. The district, as mapped, has nine houses with Preservation Society plaques. The district contains two individual National Register properties: the Nayatt Point Lighthouse (see **Figure 2**, previous page) and the Benjamin Jackson.
- *Honeysuckle Court.* The five houses sited on Honeysuckle Court, ranging in date from 1950 to 1955, were built by a leading Barrington contractor. Each house is a variation on an historic Georgian design and was reputedly showcased to entice prospective clients to build a new home. Further study is needed to identify other houses in Barrington that were then built by Volpe to document the significance of this plat.

Protection of Scenic Views and Shore Access Points

Barrington enjoys a wealth of scenic resources, where the beauty of the natural setting has been preserved or benignly modified by patterns of development, as well as more than 20 public shore access points (see Map NCR-3). The Town's topographical character is set by the interplay between its land and waters, including the Bay, the various tidal rivers, several coves and a number of freshwater ponds. These large and small bodies of water provide vistas ranging from the expansive to the intimate that are enjoyed from both public and private land.

Three areas in Barrington are identified in the state inventory of scenic areas (1990), in terms of their size and visual qualities, constitute scenic resources that are important on a regional and statewide level. The most significant risk to these views may be cell tower installations, given the height of these structures. The Town could consider impacts on scenic resources in evaluating special use permits for cell towers.

As yet there has been no comprehensive survey of smaller scenic areas that are important on a town-wide level. Such a survey would profitably focus on the East Bay Bicycle Path corridor, especially at Brickyard Pond and the Barrington and Warren Rivers; and along certain road corridors, including Mathewson, Adams Point, Rumstick, Chachapacassett and Nayatt Roads in the southern half of town. Other scenic areas are visible from lower New Meadow Road along the Barrington River, and along portions of Wampanoag Trail, Washington Road and Middle Highway.

An inventory of scenic views should also include views from the ends of public rights of way—important view corridors that should be protected from encroachment such as from the marina expansions or extensions of docks off adjacent private parcels.

Protection of George Street's Agricultural Heritage and Rural Character

George Street is an area of major historic significance for Barrington. It is also where the preservation of the predominant agricultural use and rural character are critical concerns. The Town's most critical agricultural land is in this section of town, which includes portions of the Doug Rayner Wildlife Sanctuary at Nockum Hill and significant parcels farmed by Four-Town Farm. However, the area also has undeveloped parcels that, despite a lack of water and sewer and adequate roads, are under development pressure. Currently, there are only 10 houses, including two vacant, within the 75 acres zoned Residence 40-Conservation Development, where residential use is permitted. This equates to just one unit per 7.5 acres of land in the R40-CD zone.

The conversion of farmland to housing in this area consumes land historically used for agricultural purposes, diminishes the rural character and potentially impacts environmentally sensitive areas, in particular the terrapin habitat within Nockum Hill. Also, more people living in close proximity to active farming operations could make farming more difficult due to complaints from dust, noise, etc.

These are not new issues. In 2012, the Town adopted a new zone for this part of town—changing the area's Residence 40 zone to Residence 40-Conservation Development. The zone is intended to provide more flexible subdivision design, with the goal of preserving important open space and limiting the development footprint. The zone requires subdivisions of five or more lots to meet the requirements of the R40-CD zone, including setting aside at least 35 percent of the site as contiguous open space. To date, no proposals have been submitted that trigger the R40-CD requirements.

An open question is whether the R40-CD zone offers sufficient protection of the agricultural land use and rural character of the George Street area, as the zone retains the current Residence 40 density. There are additional measures—such as larger minimum lot size requirements or the establishment of an agricultural zoning district—that could further protect an area with significant agricultural resources, sensitive habitat, and a historic, rural landscape reflective of Barrington's early settlement.

The Town also has had success with land acquisition and acquiring development rights in the George Street area. The Town should emphasize these strategies as it initiates or evaluates requests for open space acquisition based on established acquisition criteria.

Goals, Objectives Policies & Actions

Goal NCR-1: Protect important natural areas, including wetlands, wildlife habitats, groundwater aquifers, and the salt marshes especially around Hundred Acre Cove and the Barrington and Palmer Rivers.

Objective NCR-1.1: Establish an official open space protection program by 2017.

Policy NCR-1.1.1: Evaluate potential open space protections based on the following criteria:

- Cost: allows the Town to maximize its assets and leverage additional resources including grants, landowner donations, funding partnerships, and donations.
- Community benefit: promotes benefits for the town at large—such providing land for

recreational areas, expanding an existing open space network, or enhancing buffers.

- Connectivity: adds to the existing or planned open space system and enhances ecological, hydrological, and recreational vitality.
- Ecologically significant habitat (rare or endangered flora or fauna).
- Protection of upland areas adjacent to coastal wetlands that are projected to migrate landward due to impacts from sea level rise
- Farmland preservation (preserve agricultural properties that may also qualify for protection under other programs).
- Historic value (within a National Register Historic District and/or of significant cultural value).
- Scenic value (aesthetic value and/or preservation of community character).
- Property provides storm water storage, flood protection, or groundwater recharge.
- Size of parcel (based on acreage);
- Feasibility of purchase and likelihood of acquisition, including time seller can provide to allow Town to secure necessary funding.

Actions

A. Evaluate proposed protections of open space parcels, through acquisition, easements or other techniques, and identify priority areas based on Policy NCR-1.1.1
B. Establish a process for reviewing potential open space acquisitions that includes key stakeholders, including Boards and Commissions and the Land Trust. Consider establishing an official open space committee that meets semi-annually to review proposed land donations and to consider initiating acquisition of critical properties based on the Open Space acquisition criteria.
C. Seek grants and other funding sources to protect open space, including habitat areas and farmland, through acquisition and conservation easements.
D. Establish deed restrictions to ensure high priority Town-owned conservation parcels, as determined based on Policy NCR-1.1.1, cannot be sold or otherwise disposed of.
E. Rezone properties with conservation values, consistent with the Future Land Use Map (see **Maps LU-6** and **LU-7** in the Land Use element).

See the Implementation element for information on implementation schedule, priorities, estimated costs, responsibilities and action types.

Objective NCR-1.2: By 2017, amend local regulations and procedures to improve protections of natural resources.

Policy NCR-1.2.1: Effectively regulate and enforce regulations protecting critical conservation lands from development impacts.

Actions

A. Create an administrative mechanism to certify that projects comply with approved zoning action regarding encroachments in the Town's 100-foot wetland buffer that includes mandatory inspection by the Town Building Official / assignee prior to critical project steps.
B. Create an electronic inventory of all properties granted variances and conditions of plan approval for construction within the 100-foot setback that specifies the approval and conditions of that approval.
C. Secure funding to research, inventory, and digitally map wetlands in town to improve the accuracy of the locations of wetland

edges.[5] The primary goal of this inventory would be to establish existing wetland types and approximate wetland edges, identify jurisdictional review, document distance from existing structures, and map interconnections between wetlands and other water bodies, including larger rivers and bay.

D. Amend Zoning Ordinance and Land Development & Subdivision Regulations to establish review procedures to ensure development/subdivision proposals provide dedicated open space consistent with the Town's open space acquisition criteria.

E. Amend drainage and site plan design standards in the Land Development & Subdivision Regulations to encourage low-impact development techniques.

F. Eliminate the required advisory review of projects proposed within the Groundwater Overlay District.

Goal NCR-2: Effectively manage open space properties to maintain and protect conservation values of the Town's critical cultural and natural resources.

Policy NCR-2.1.1: Manage town owned property to ensure protection of important natural and cultural features, and develop regulations and/or techniques for the protection of such land that is privately owned, including scenic, historical and cultural sites.

Policy NCR-2.1.2: Encourage cooperation with private owners of open space parcels to establish public access, enhance trail connectivity, expand wildlife corridors and coordinate management responsibilities.

Actions

A. Implement management plans developed for priority sites. Review and revise as necessary. These sites include:

- Nockum Hill
- Allin's Cove (Town and Conservation Land Trust parcels).
- The Brickyard Wetlands (the Town-owned 10-acre site west of the Barrington Shopping Center).
- Hampden Meadows "Greenbelt"
- Walker Farm
- Town Beach (Town)
- St. Andrews Farm (Town)

B. Complete management plans for other public open space spaces, including:

- The former Vitullo Farm property and the Divine Vargas Conservation area
- Veterans Park west of Brickyard Pond

C. Work with owners of private conservation parcels to develop new or coordinate implementation of existing management plans that are consistent with those adopted for public conservation areas. Priorities include:

- Mussachuck Creek
- Echo Lake/Sowams Woods
- Johannis Farm
- Tillinghast Estate
- Other critical natural areas

D. Create a process for consistent oversight of management plans for individual sites. The success of management plans will require assigning responsibilities and a monitoring process to track implementation including inspections for conditions, maintenance needs, and encroachments. Annually review status of management plan implementation for all conservation areas.

E. Work with the Land Trust and other stakeholders to establish the proposed Sowams National Heritage District to enhance and protect the scenic, historic, natural and recreational open spaces within the district. Reinforce public awareness of the district through maps, logos, educational panels and other measures.

[5] In conjunction with completion of a hydrology study (see Natural Hazards Goal NH-2, Action C.

F. Work to eliminate encroachments into open space properties by abutting property owners. This action requires a Class 1 survey, which can be costly. To minimize costs, the Town should focus on identifying the most blatant encroachments first.
G. Conduct a study of the habitat of the Diamondback Terrapin to determine whether the mapped Habitat Area on NCR-1 should be expanded.

Goal NCR-3: Work to protect and restore water quality, including in Hundred Acre Cove, Brickyard Pond, Prince's Pond, and Annawamscutt Creek.

Policy NCR-3.1.1: Pursue cost-effective water quality measures and include projects in capital budget planning.

Actions

A. Complete a watershed study within priority areas, including Town Beach and Brickyard Pond, to identify and prioritize future stormwater / water quality improvement projects, with an emphasis on "green infrastructure" such as rain gardens, where feasible. Prepare detailed plans as necessary to determine estimated costs and capitalize on funding opportunities available through the State or other sources.
B. Prioritize and phase in implementation of watershed study recommendations, emphasizing the most cost-effective measures.
C. Formalize a partnership (or consortium) with neighboring communities to adopt measures to improve water quality in Hundred Acre Cove.
D. Develop an education/public outreach program on everyday uses and activities that contribute to the degradation of the water quality of local ponds and streams.

Goal NCR-4: Protect critical historic properties and areas of historic significance.

Policy NCR-4.1.1: Take proactive action to protect historic properties at risk of demolition or negative impacts resulting from development.

Policy NCR-4.1.2: Promote awareness of the area's history, including the pre-colonial era.

Actions

A. Develop incentives for the restoration of Belton Court that are economically viable, and seek opportunities for gaining public access to building and grounds. (Incentives are listed in Appendix II)
B. Explore creation of a Nockum Hill National Historic Landmark (NHL) Site. Seek study of Nockum Hill area to determine archaeological resources including Native American use of the land and the location of the first Baptist meeting house built in the 1660s off George Street.
C. Work with stakeholders to develop a management plan for the Civic Center National Register District. Adopt a policy for reviewing and approving projects within the District, including an evaluation of parking and other impacts and potential maintenance responsibilities.
D. Apply for designation of the Bay Spring Community Center on the National Register of Historic Places.
E. Work with the Preservation Society for expansion of existing historic districts and for listing of additional residential districts in the State and National Registers, per Map NCR-6.
F. Appoint a committee to study establishment of a Voluntary Historic District Commission. Such a committee could develop guidelines for restoration and protection of historic properties, based on the Secretary

of the Interior's Standards for Rehabilitation and study possible local tax incentives.

G. Include Sowams Woods history on historic signs along the Bike Path.

H. Adopt a stop-work ordinance which would allow a reasonable grace period for historic preservation consultation when a significant historic property is threatened with whole or partial destruction.

Goal NCR-5. Protect the Town's scenic resources.

Policy NCR-5.1.1: Review impacts of private and public projects on scenic resources.

Actions

A. Adopt scenic area registry and incorporate protections within Planning Board review process.

B. Identify smaller scenic areas that are important at local level, including ends of public rights of way providing views to the water.

C. Establish viewshed easements around particularly important sites.

D. Convert streetlights/parking lot lighting to cut-off ("dark sky") fixtures (see also Energy Goal E-1).

E. Set standards for outdoor lighting to limit light pollution in scenic areas; adopt Town ordinance to require cut-off lighting on residential properties.

F. Adopt zoning standards for review of impacts of proposed cell towers on scenic resources.

Goal NCR-6. Preserve the character of rural areas of Barrington.

Policy NCR-6.1.1: Adopt measures and policies to protect rural areas, with an emphasis on preserving rural character and agricultural values.

Actions

A. Enact protections through zoning and other regulations to limit impacts of development on the rural character of the George Street area.

B. Evaluate other potential options to protect agricultural lands, such as conservation easements through the purchase of development rights.

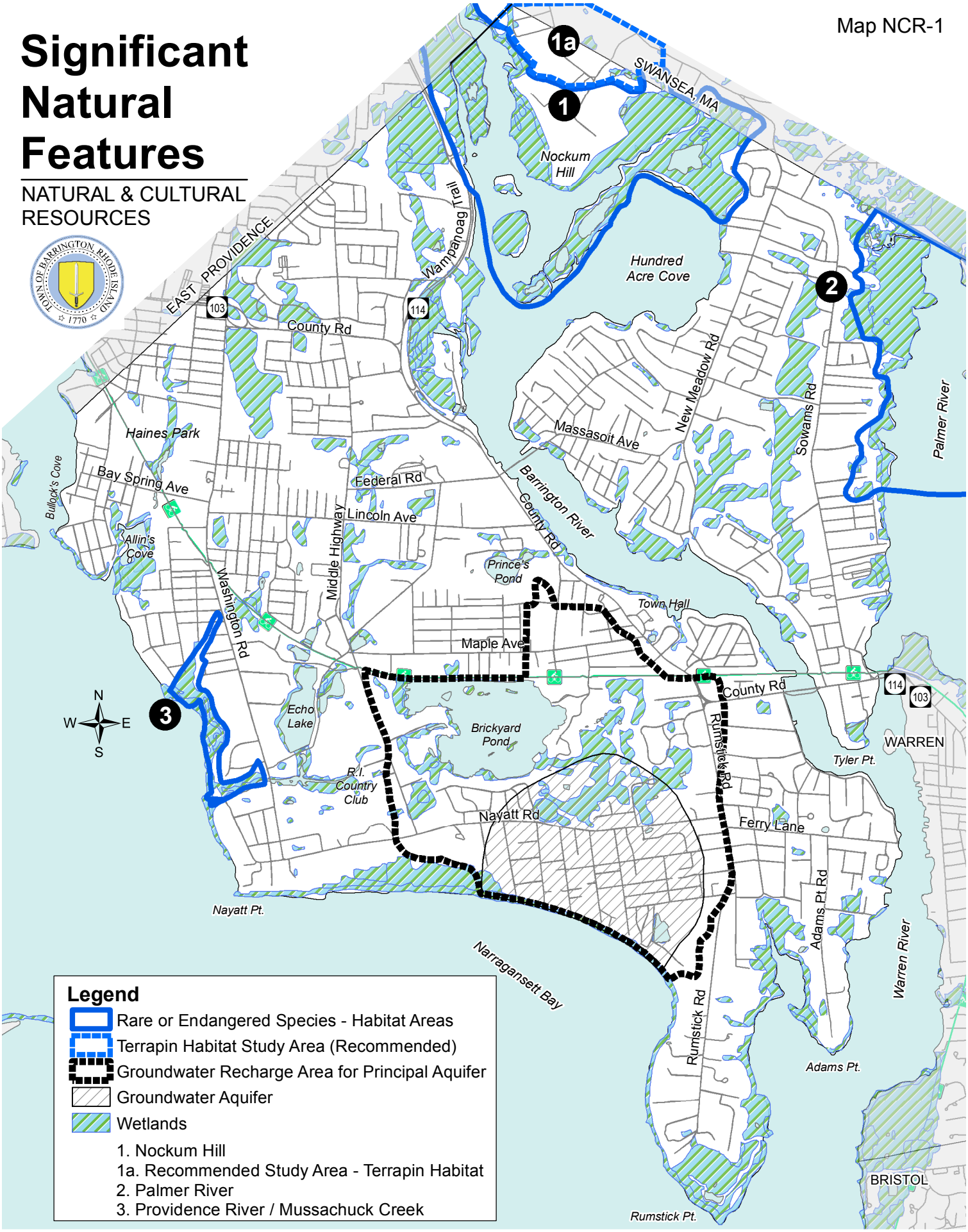
C. Consider including the following conditions when providing option of leasing Town properties for farming:

- Adding conditions to limit environmental impacts, such as restrictions on the application of chemicals and limitations on farming near environmentally sensitive areas.
- Requiring provision of public access, if such access would improve connectivity to open space or for extending trails, per recommendations in Open Space plan.

Significant Natural Features

NATURAL & CULTURAL RESOURCES

Map NCR-1



0 4,000 8,000 Feet

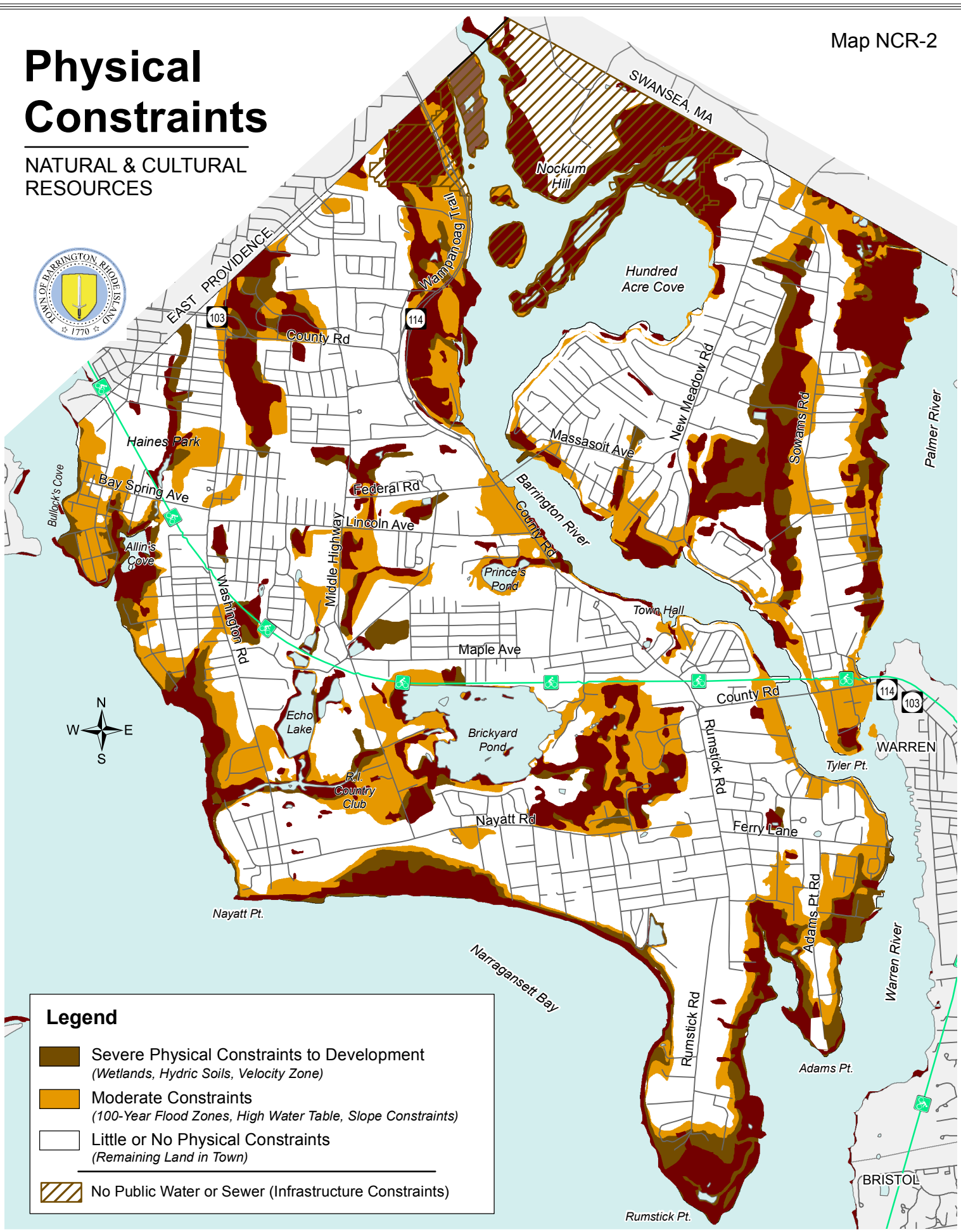
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Physical Constraints

NATURAL & CULTURAL RESOURCES

Map NCR-2



Legend

- Severe Physical Constraints to Development *(Wetlands, Hydric Soils, Velocity Zone)*
- Moderate Constraints *(100-Year Flood Zones, High Water Table, Slope Constraints)*
- Little or No Physical Constraints *(Remaining Land in Town)*
- No Public Water or Sewer (Infrastructure Constraints)

0 4,000 8,000 Feet

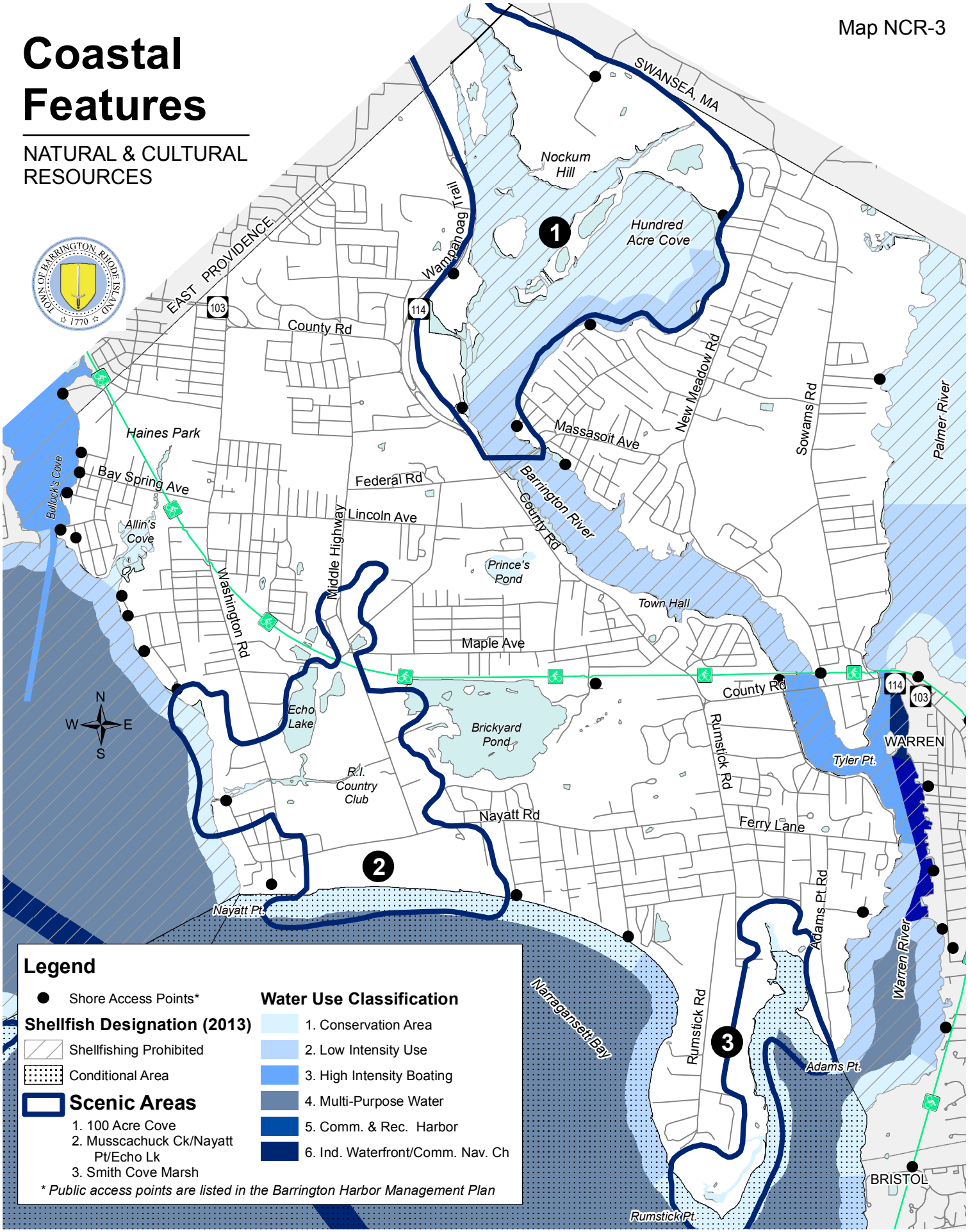
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Coastal Features

NATURAL & CULTURAL RESOURCES

Map NCR-3



0 4,000 8,000 Feet

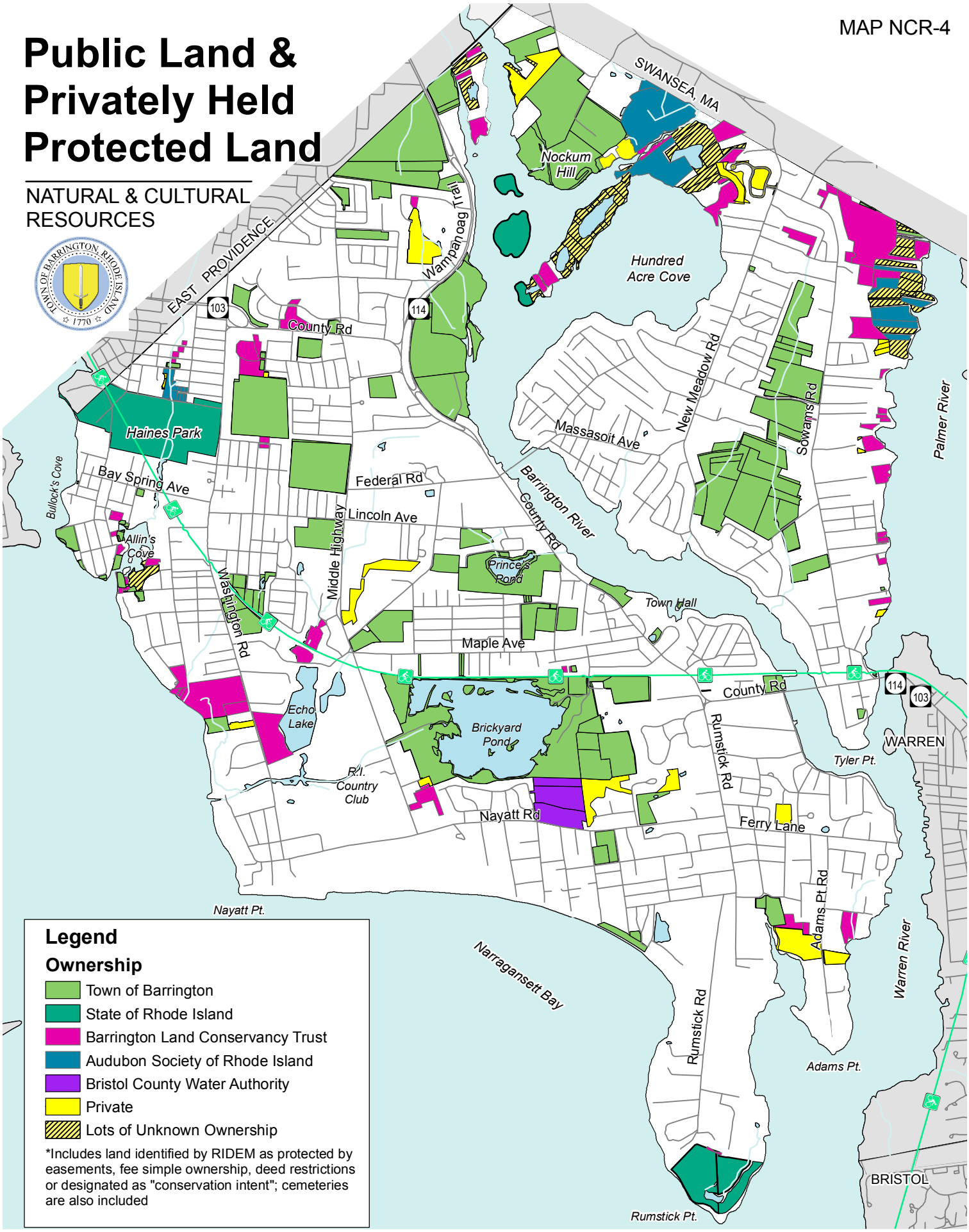
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Public Land & Privately Held Protected Land

NATURAL & CULTURAL RESOURCES

MAP NCR-4



Legend

Ownership

- Town of Barrington
- State of Rhode Island
- Barrington Land Conservancy Trust
- Audubon Society of Rhode Island
- Bristol County Water Authority
- Private
- Lots of Unknown Ownership

*Includes land identified by RIDEM as protected by easements, fee simple ownership, deed restrictions or designated as "conservation intent"; cemeteries are also included

0 4,000 8,000 Feet

SOURCE: Town GIS, RIGIS

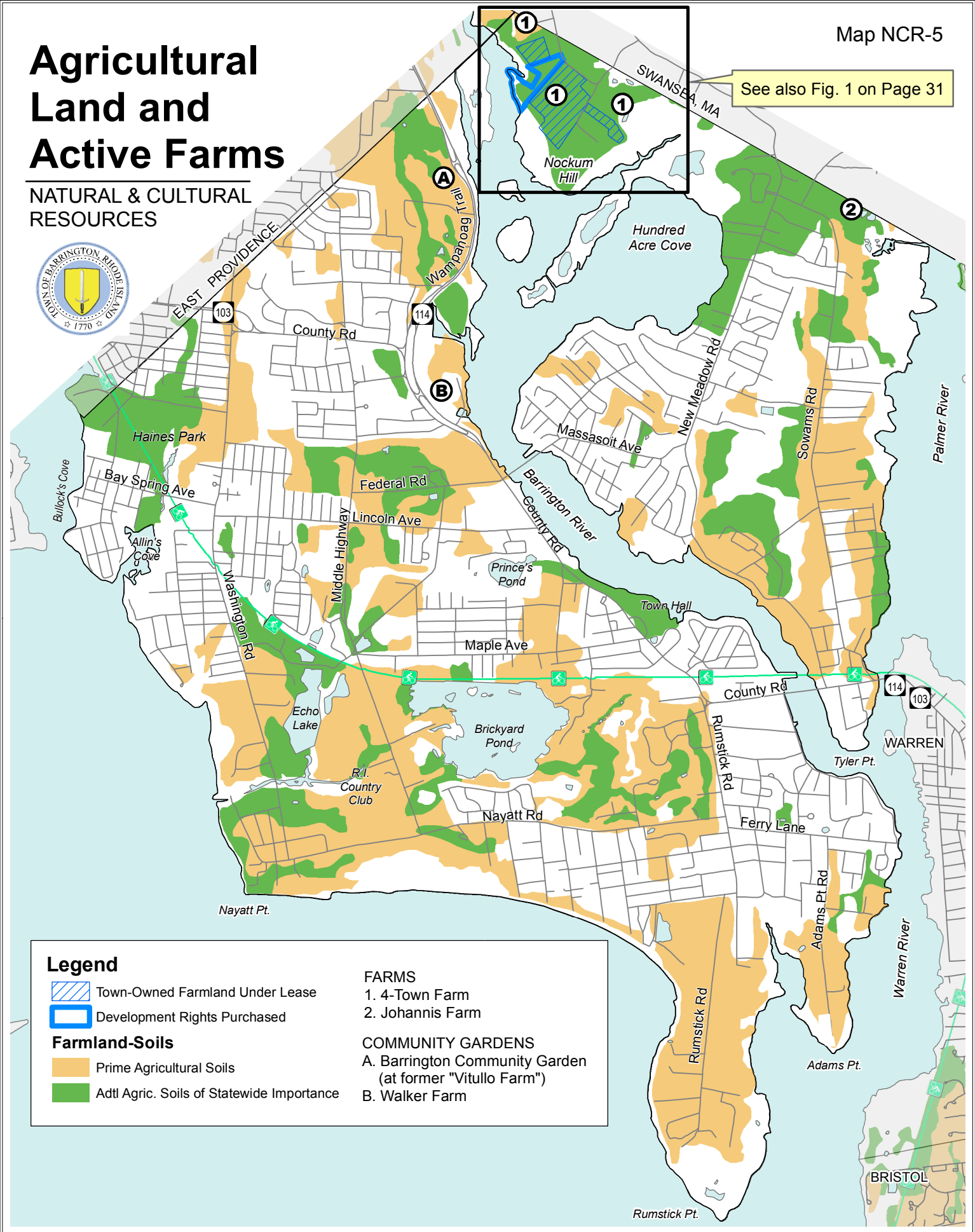
Comprehensive Community Plan - 2015 Update / Town of Barrington

Agricultural Land and Active Farms

NATURAL & CULTURAL RESOURCES

Map NCR-5

See also Fig. 1 on Page 31



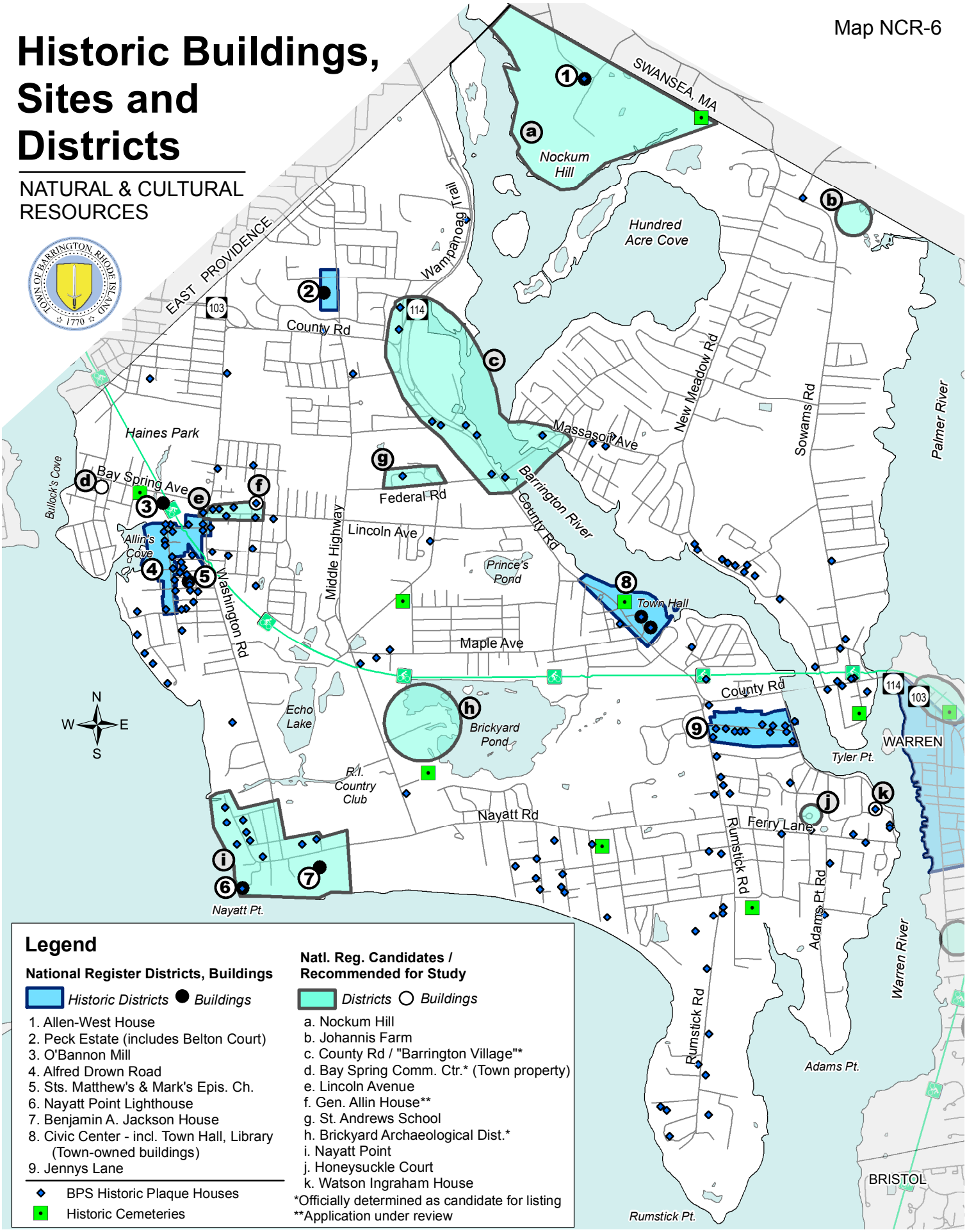
SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Historic Buildings, Sites and Districts

NATURAL & CULTURAL RESOURCES

Map NCR-6



Legend

National Register Districts, Buildings

Historic Districts ● *Buildings*

1. Allen-West House
2. Peck Estate (includes Belton Court)
3. O'Bannon Mill
4. Alfred Drown Road
5. Sts. Matthew's & Mark's Epis. Ch.
6. Nayatt Point Lighthouse
7. Benjamin A. Jackson House
8. Civic Center - incl. Town Hall, Library (Town-owned buildings)
9. Jennys Lane

◆ BPS Historic Plaque Houses

■ Historic Cemeteries

Natl. Reg. Candidates / Recommended for Study

Districts ○ *Buildings*

a. Nockum Hill
b. Johannis Farm
c. County Rd / "Barrington Village"*
d. Bay Spring Comm. Ctr.* (Town property)
e. Lincoln Avenue
f. Gen. Allin House**
g. St. Andrews School
h. Brickyard Archaeological Dist.*
i. Nayatt Point
j. Honeysuckle Court
k. Watson Ingraham House

*Officially determined as candidate for listing
**Application under review

0 4,000 8,000 Feet

SOURCE: Town GIS, RIGIS

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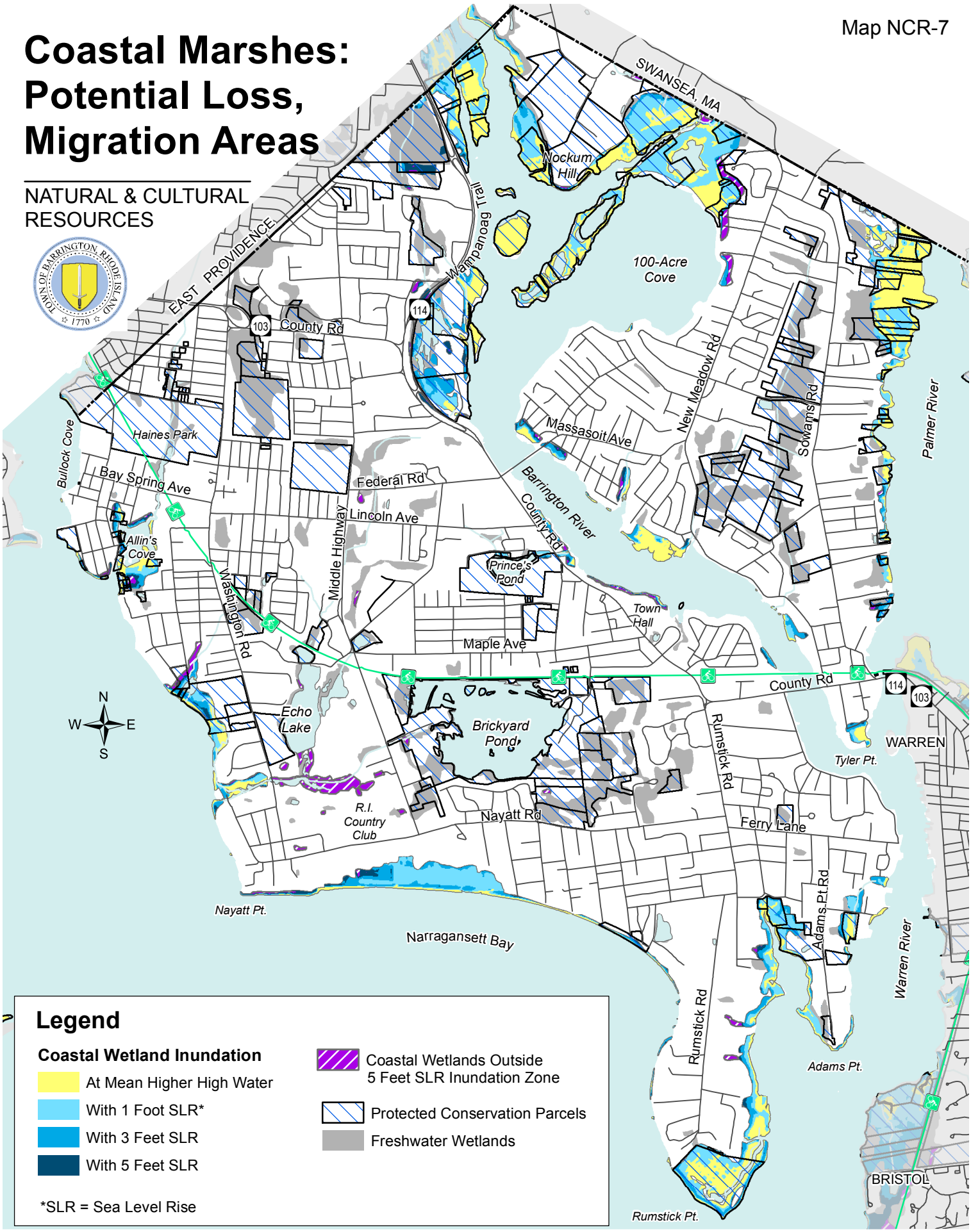
Coastal Marshes: Potential Loss, Migration Areas

NATURAL & CULTURAL RESOURCES

Map NCR-7



Legend

Coastal Wetland Inundation

- At Mean Higher High Water
- With 1 Foot SLR*
- With 3 Feet SLR
- With 5 Feet SLR

*SLR = Sea Level Rise

- Coastal Wetlands Outside 5 Feet SLR Inundation Zone
- Protected Conservation Parcels
- Freshwater Wetlands

0 4,000 8,000 Feet

SOURCE: Town GIS, RIGIS data

Comprehensive Community Plan - 2015 Update / Town of Barrington

6 OUTDOOR RECREATION

Overview

The Town's outdoor recreational spaces serve a variety of purposes: swimming and walks along the shore at Town Beach; biking, jogging and walking on the East Bay Bike Path; hiking at Osamequin Park, Haines Park, Veterans Park and elsewhere; boat-launching at Walker Farm; and baseball, football and other sports at parks such as Sherwood and Chianese. These resources are assets for people of all ages, contributing to a sense of community and providing opportunities for a healthy enjoyment of the outdoors.

Existing Conditions

Outdoor Recreation Properties

Outdoor recreational properties are depicted on **Map OR-1**.

Multi-Use Parks and Recreation Areas

Barrington has many parcels of public recreational open space: neighborhood parks, large multi-use parks, woodlands with trails and other passive recreation features. (See **Table 1**, next page for a full listing of Multi-Use Parks.)

Overall, the Town maintains nine parks and recreation areas totaling approximately 192 acres of land. Barrington's parks include Latham Park, Bicknell Park, Sherwood Park and other neighborhood-oriented parks; large community parks including Veterans Memorial Park, Chianese Park and the Town Beach. New park sites developed since 2000 include:

- *St. Andrews Farm, Middle Highway.* The Town in the early 2000s acquired the 28.5-acre tract from St. Andrews School for active and passive recreation. The Town constructed a soccer field on the front portion

View of Narragansett Bay from Bay Spring.

of the property. The rear of the site consists of an open field to be preserved for passive recreation.

- *Sowams Road open space parcel.* An upland area within the 5.9-acre site near Sowams Road has been converted to a practice field with parking.

Serving the greater region is the State's 80-acre Haines Park and a 3.5-mile section of the East Bay Bike Path; Barrington is at the mid-point of the 14.5-mile bike path, which travels from India Point Park in Providence to Independence Park in Bristol.

Haines Memorial State Park is a significant recreational asset for the community. Under a lease agreement with the State, the Town maintains the portion of Haines Memorial State Park within the town limits. The 73-acre park, on Washington Road and Narragansett Avenue, features three baseball fields and several multi-

Table 1: Multi-Use Parks / Outdoor Recreation Facilities

Site	Location	Acreage	Uses
Town Properties			
Latham Park	Latham Avenue	3.26 acres	Playground, path with benches, parking, fishing areas
Town Beach	End of Bay Road, on Narragansett Bay	Approx. 4 acres	Beach; beach house with restrooms, showers; boat storage area, apprx. 100 parking spaces
Sherwood Park	Congress Road	4.47 acres	Baseball field, practice area, walking path, concession stand
Police Cove	County Road at Barrington River Bridge	3.26 acres	Boat ramp, Bike Path parking, undeveloped park
St. Andrews Farm	Middle Highway west of Federal Rd. intersection	28.53 acres	Multi-use field, trails, parking (and St. Andrews School maint. facility)
Bicknell Park	Walnut Rd, Alden Rd, East Bay Bike Path	4.86 acres	Ball field
Chianese Field	Prince's Hill Road, Centennial Ave., Foote St.	15.21 acres	Multi-use field, tennis, basketball courts, parking (capped landfill areas to include 2 soccer fields)
Veterans Memorial Park	Brickyard Pond, West Street, Legion Way	123 acres (plus 101-acre pond)	Softball field, picnic areas, trails, boat access, Legion Way rink, parking
Town Hall/Library	281/283 County Rd.	Approx. 2 acres	Playground; gazebo on pond; walking paths; bike racks; benches; kayak launch
Sowams Rd. Park Site	Sowams Road	5.87 acres	Practice field, parking area
Lincoln Ave. park	Lincoln Avenue across from High School	Approx. 5 acres	Tennis courts (6) w/ lighting; little league fields; practice field; parking at school
Middle Hwy athletic facilities	Middle Highway next to Middle School	Approx. 13.5 acres	Basketball courts (2); little league field; multi-purpose fields (2); tennis courts (4); "ball wall"
High School facilities	Barrington High School	Aprpox. 15 acres	Baseball fields (3); multi-use fields (3); track; parking at school
Primrose Hill School	Primrose Hill School	1.3 acres	Practice little league / multi-use field
Sowams School	At Sowams School	2.4 acres	Little league field; practice little league field; playground
Nayatt School	At Nayatt School	1.6 acres	Practice little league/multi-use fields (2); playground
Subtotal – Town		**231.26 acres**	
State Properties			
Haines Memorial State Park (portion within Barrington)	Narragansett Ave., Washington Rd., Haines Park Rd.	73 acres	1 Sr. League, 2 Little League, 2 multipurpose fields, dog park, picnic areas, trails, boat ramp
Subtotal: State		**73 acres**	
Total		**304.26 acres**	

Source: Tax Assessor Database, Town Open Space Plan (2011)

use fields, a fenced-in dog park and a meandering trail system bifurcated by Annawamscutt Brook that runs through the middle of the park.

Schools—Athletic Facilities
Schools provide critical outdoor recreational facilities that benefit the community at large. In addition to providing access to multi-use fields, schools are sites of little league fields, basketball courts, tennis courts, and a paved track (see Map OR-1 and Table 1). A practice wall for lacrosse, soccer and tennis was built in 2014 at the Middle School.

Playgrounds
Barrington's three elementary schools – Nayatt, Primrose Hill and Sowams Schools also feature playgrounds accessible to the public. Other playgrounds are located at Latham Park and behind the Bay Spring Community Center. The newest playground is outside the Library/ Town Hall. Called "Kids Kove," this playground is unique in that it features equipment that appeals to older children as well as a section that is handicap-accessible.

Town Open Space: Use to be Determined
The Town also owns several open space parcels where the future use has not yet been determined. For example, the Town razed the old barn known as "The Place" on College Lane, but there are no formal plans for the vacant 4.5-acre site. Other undeveloped sites that have been identified as potential outdoor recreational resources are Currier Park on Old County Road adjacent to Primrose Hill School, and a two-acre site between Sherbrooke Road and Hazelton Road. (See **Table 2**)

Natural Areas with Restricted Public Access
In addition to wooded areas within Veterans Park and Haines Park and the rear meadow at St. Andrews Farm (all listed in Table 1 as a multi-use parks) Barrington has open space parcels where the public has access to a system of designated trails (see Table 1 in the Natural and Cultural Resources element).

Open Space Acquisitions

The Town in recent years also has purchased properties that hold significant conservation value but also provide opportunities for passive recreation:

- *The "Brickyard Wetlands"* located between the Barrington Shopping Center and the YMCA. The 10-acre site, which is mostly wetlands, features trails that branch off the Bike Path and the end of Bosworth Street, providing access to Veterans Park.
- *Vitullo Farm* on Wampanoag Trail. A section of the former farm just off Wampanoag Trail was converted in 2014 for use as the Barrington Community Garden. Environmental constraints include wetlands and a high water table. The Town has plans to install a gravel parking lot and to relocate the driveway that provides access from Wampanoag Trail. Plans to establish trails within the rear portion of the property, extending northward into the Divine Vargas conservation area, are at the conceptual stage.

Park Improvements

Town voters helped address recreational needs in 2006, approving a $2 million bond to help

Table 2: Town Open Space Parcels—Future Use to be Determined

Site	Location	Acreage	Uses
"The Place"	College Lane	4.75 acres	Undeveloped (former site of "The Place"
Undeveloped park	Between Sherbrooke Rd & Hazelton Rd	2.04 acres	Undeveloped park
Currier Park	East of Primrose Hill School	Approx. 5.3 acres	Informal trails
Total		**12.09 acres**	

Source: Tax Assessor Database, Town Open Space Plan (2011)

the Town make needed park improvements, including:

- *Reconstruction of the Lincoln Avenue Tennis Courts*, including new lighting and an additional court (for a total of six). Grant funding offset $225,000 of the cost.
- *Reconstruction of the Middle Highway Basketball Courts*, replacing two outdoor courts on Lincoln Avenue removed as part of the tennis court project.
- *Kids Kove Playground*. Bond funds together with private donations built the playground, located at the Library/Town Hall complex.
- *Sherwood Park*. Projects included reconstruction and relocation of the Little League field, development of a walking path and establishment of a small multi-use field.

Other recent/ongoing park projects include:

- *Town Beach*. The Town in 2011, utilizing unspent recreation bond funding, replaced a 1950s cinderblock restroom building with an elevated office/restroom facility elevated out of the flood zone. In 2014, the Town completed a $360,000 overhaul of the beach parking area, which also included drainage and erosion control-related improvements and new site amenities.
- *Chianese Park*. The Town created two new multi-use athletic fields through the closure of Landfills Number 1 and 2 on either side of Princess Hill Avenue. The project included the addition of parking within the Princess Hill Avenue right of way.
- *"Police Cove" park* (see **Figure 1**). Plans for the park at Police Cove involves the redevelopment of a waterfront site formerly occupied by the Police Station, demolished in 2001. The park will feature a seating plaza with public art on the water, a large landscape lawn, an expanded parking lot, bike racks, walkways, benches, picnic tables and an area with hook-ups for food trucks.

  The reconstruction of the boat ramp is also included in the project. Funding is coming from RIDOT, RIDEM and the federal CMAQ program. A contract to build the park was awarded in 2014, with construction expected to be completed in 2015.
- *Latham Park*. The park redevelopment project includes reconstruction of the parking lot, a rebuilt stone revetment with a new

Figure 1: Site of Town Park at "Police Cove" (Before Construction)

The "Police Cove" site on County Road at the Barrington River will be redeveloped as a park.

small boat access ramp to the shore, and a walkway along the water with benches. (Completed in 2014)

Trail System

The Town has a network of trails throughout Barrington that provides a variety of experiences, passing through woods and open fields, and along the shore. Some are well-known, such as the Osemequin Nature Trails that offer views of Hundred Acre Cove. (Trailhead locations, and associated parking areas, are shown on **Map OR-2**.) The most expansive trail systems are within Veterans Park and Haines Park. Others sites mostly serve adjacent neighborhoods, such as those that wrap around a large meadow at St. Andrew's Farm, a Town park on Middle Highway.

The Town has begun creating a more consistent, coherent trail system. The trails within Veterans Park, for example, have been the focus of a volunteer-Town effort that began with planning assistance from the National Park Service. A $100,000 trail improvement grant from RIDEM will fund upgrades to most of the trails within Veterans Park in 2014, to include new bridges over wetlands, overlooks, and resurfaced trail treads that have become eroded or wet.

The Veterans Park project included development of trailhead kiosk and trail marker prototypes that are being used elsewhere, to create more consistent trail infrastructure. The trail markers have been used at the Tall Cedars conservation area, installed by the Land Conservation Trust. Other sites are being considered for similar trail markers and kiosks.

Public Boat Facilities

Barrington has several boat launch facilities (see Map OR-2) that provide boat access to area waters:

- *A boat ramp at Walker Farm*, located on the Barrington River. The East Bay Rowing Club has operated a rowing club based at the site in conjunction with the Town's Recreation Department. A dock facility adjacent to the ramp is used for fishing. The area has a gravel parking lot for vehicle and trailer parking.
- *A boat ramp at the "Police Cove" park site* on near the Barrington River bridge. The Town has $200,000 from the State to complete the reconstruction of the boat ramp, which was damaged during the bridge reconstruction project. The construction of the park will include an improved area for boat trailer parking.
- *The Haines Park boat ramp* is technically in East Providence, but is in close proximity to the Barrington town limits. This ramp provides access to Bullock Cove.

Public Rights of Way to the Shore

Map OS-2 also depicts shore access points as listed in the Town's Harbor Management Plan. Many of these access points lack parking, and most are not marked with signage or other markers identifying the right of way as public access.

Issues and Opportunities

Evolving Outdoor Recreational Needs

The outdoor recreational needs of the Town will be evolving in the coming years. First, as discussed in other elements, Barrington's population is projected to decline over the next 25 years – by approximately 4.5 percent, according to the Statewide Planning office. School enrollment is projected to decline as well – by an estimated 19.5 percent by 2023-24. Strategies to increase the supply of senior and affordable housing, however, will help offset some if not all of this decline.

Table 3: Comparison of Athletic Field Needs Assessments

Field Purpose	Need: 1992	Need: 2015
Little League	9 additional fields: 5 regulation; 2 transitional (75 foot base paths); 2 full (90 foot base paths)	1 new Little League field 3 replacement baseball/softball fields*
Soccer	8 additional fields: 4 regulation; 4 smaller	
Softball	2 additional fields	1 new field
Rugby	1 additional field	
Multi-Use Fields		2 new fields*
Total	**20 new fields**	**4 new fields; 3 replacement fields****

* This number requires re-evaluation with the addition of two new multi-use fields added on either side of Prince's Hill Avenue as part of the closing of Landfills 1 and 2
**Replacement of the "unsafe" fields at Nayatt, Primrose and Sowams Schools may require new sites.
Source: 2002 Comprehensive Community Plan (1992 numbers), 2007 *Report on Athletic Field Use in Barrington and the Need for New Fields*

While the overall population of Barrington is unlikely to change significantly, the Town will need to plan to meet the recreational needs of an aging population, an issue described in the Housing & Neighborhoods element. The provision of passive recreational spaces (as opposed to athletic facilities such as ball fields) may benefit people of all ages, but are particular important component of efforts to enable the growing population of older adults to "age in community."[1]

In response, future park development and maintenance programs will need to focus on providing quality, accessible outdoor amenities, including trails, walkways, and access to the shore.

Athletic Fields

A need for additional athletic fields has been an ongoing issue since at least 1987, when the Park and Recreation Commission released a report on recreational needs. The issue: Heavy demand for fields from Barrington's numerous organized leagues, both youth and adult, has resulted in a shortage of available playing fields for the various sports. As a result, scheduling and long term proper maintenance of the fields has proven difficult. The 2002 Comprehensive Community Plan, based on findings made in 1992, identified a need for 20 additional fields.

In 2007, The Park and Recreation Commission updated its field needs analysis for the 5-Year Update of the Comprehensive Plan. The document, "Report on Athletic Field Use in Barrington and the Need for New Fields," utilized the methodology developed by the National Recreation and Park Association and other variables as the means of determining the number of athletic fields needed in the town of Barrington. It predicted growth of all youth sports except lacrosse (expected to grow by 150%) to be "somewhat flat" in Barrington, based on projected enrollments of the Barrington public schools.

The report concluded that to meet current demand, Barrington needs one new little league field, one new softball field and two new large multiuse fields, one of which would be for periodically resting the heavily used fields that typically suffer overuse. Also recommended is the replacement of under-sized little league fields at Nayatt, Primrose and Sowams Schools.

Table 3 shows the need for additional playing fields as determined in 1992, compared to the

http://www.aarp.org/content/dam/aarp/livable-communities/documents-2014/Harvard-Housing-Americas-Older-Adults-2014.pdf

updated assessment completed in 2007 by the Park and Recreation Commission. Note that the projected need varies because of differing methodology used for the analyses, not due to a change in the number of athletic fields in Barrington (just one new multi-use field has been built since 1992).

It is unclear whether the Town owns sufficient land to meet the goal of additional athletic fields. The landfill closure process resulted in two new regulation-sized multipurpose fields on either side of Prince's Hill Avenue. The master plan for the site proposed a second Little League field at Chianese; however, there is no room to add one at the site. One potential location for an additional baseball or multi-use field is on the front of the St. Andrew's Farm property on Middle Highway where a house and a storage building are located. Site planning completed for the Sowams Road parcel revealed that, due to site constraints, a full-sized field along with sufficient parking does not appear feasible at that location (though a smaller practice field for football, lacrosse, etc., may be suitable).

Given the scarcity of available land, options should be explored to minimize the need for new sites for athletic fields. For example, rebuilding the three under-sized little league fields at Nayatt, Sowams and Primrose Hill Schools in the same location should be studied in greater detail by a professional before considering alternative sites. Fields that are slightly smaller than regulation size may be preferable to the costly option of developing fields in new locations, which could also involve land acquisition. Also, the conversion of a grass field to an artificial turf field, as has been proposed for Victory Field at the High School, would allow for greater utilization of the facility and reduce the wear and tear of other natural turf fields.

Parks and Playgrounds

While most established areas of Town are within a short drive or walk to a playground or neighborhood park, development of the Zion Bible Institute site as a "Senior Residential Vilage", as contemplated in this plan, would create greater demand for parks and recreational amenities within the development as well as in the vicinity of the site. Opportunities to add a new neighborhood park and playground, either at Zion or at the former site of the Place, should be considered as a requirement as part of future development of that site as a mixed-use neighborhood.

Throughout the community, the Town should focus its efforts on improving existing properties identified for outdoor recreational use, rather than acquire new sites. Recent projects provide examples for the future:

- *Construction of the "Police Cove"* site on the Barrington River, the former site of the Police Station.
- *Improvements at Town Beach*, with a new restroom/office building built out of the floodplain, and new drainage projects designed to capture storm water runoff, addressing water quality and erosion issues.
- *Improvements at Latham Park* on Bullock Cove, where the Town completed a shoreline enhancement project in 2014 that established an improved walkway with benches along the water, repaired the stone revetment protecting the northern portion of the park, and rebuilt the parking lot..

Other opportunities to build on existing assets include:

- *The Legion Way recreational area*. The area includes an outdoor rink (repaved in 2014) and a boat launch, with public parking and access to trails.
- *Chianese Field*. The Town has provided multi-use fields on top of capped landfills to either side of Princes Hill Avenue, including adding parking within the street right of way. Unused green space within this complex may provide opportunities for additional amenities, such as walking paths.

- *The former site of "The Place"*. The 4.75-acre parcel on Middle Highway has been vacant since the Town demolished "The Place" barn in 2007. While the sloping site has no formal use at this time, the property still must be mowed and otherwise maintained by the Town.
- *The "Currier Park" site* on Old County Road. The Town has no plans to develop the site, which is more than 5 acres.

Haines Park Lease Agreement

The Park and Recreation Commission's 2007 field needs analysis cited above assumes that the Town would continue to have access to the athletic fields at Haines Park (one senior league, two Little League plus two multi-purpose fields). Finding alternative sites for the athletic fields within Barrington would be difficult and expensive, underscoring the importance of the facilities at Haines Park.

The Town's lease with the State for utilizing the portion of Haines Park within the Town of Barrington has been extended to 2019. Given the importance of the facilities at the park in meeting the Town's recreational needs, future extensions of the lease should be a priority.

Needs—Trail System

In addition to coordinating and prioritizing future open space acquisitions (see the Natural & Cultural Resources element), a desired outcome of this Plan is consistency within these areas for the trails within these open spaces, in particular Town and Land Trust properties where public access is promoted. Consistent infrastructure – for example, the use of materials, signage and trail markers – would help create a cohesive trails network for Barrington.

The Open Space Ad Hoc Committee has evaluated the need for adding new and improving existing trails throughout the town (the committee has since been dissolved). The committee recommended establishment of a trail system with well-marked trail loops connecting destinations such as scenic vistas within open space properties or recreation areas, ultimately returning to the point of origin.

These trails, for the most part, already exist. The challenge is enhancing the quality of the trails – with new signage and maps, as well as completion of maintenance and improvement projects. Maintenance is labor-intensive, involving regular efforts to pick up trash, remove invasive vegetation, and repair eroded surfaces. There are also larger, more extensive projects that are needed, including construction of formal crossings over streams/wet areas (subject to environmental permits). Volunteers – including Scouts – have played a critical role in completing trail projects.

It is recommended that the initial improvement target areas where there would be a community-wide benefit – in areas where there are convenient places to park in proximity to trailheads. Trail needs are described below.

- *Veterans Park*. In 2011, the Town of Barrington began working with the National Park Service (NPS) Rivers & Trails Program on a plan to improve Veterans Park, with a focus on trails (see **Figure 2**, next page). The Town sought the services of the NPS to create a plan for the park, to serve as a template for improvements to parks and trails throughout the town.

  The plan calls for establishing a trail loop around Brickyard Pond; designating areas where bikes are appropriate and where they are not permitted; creating a "water trail" on the pond; fixing erosion problems; improving trail surfaces; creating new trails at and near the YMCA and bike path; and other improvements.

  The plan also provides specifications for trail markers and other types of signage, tables and benches, and other types of improvements. The Town in 2013 received a $100,000 RIDEM grant to improve the

trails based on the plan developed with NPS assistance. Construction is scheduled to begin in 2015.

- *Hampden Meadows Greenbelt.* The main trail in the Hampden Meadows Greenbelt provides access from Linden Avenue north to Kent Street, a wide path with a gravel surface suitable for bikes. The trail north of Kent Street to the rear of Sowams School follows along a creek, a narrow pathway that is accessible by foot despite uneven surfaces and wet areas. It narrows further from Sowams School to Christine Drive. Another trail segment, just north of Linden Avenue, provides east-west access to the main trail from New Meadow Road. These trails, with proximity to Sowams and Hampden Meadows Schools, are alternative routes to school for students.

  Efforts should be made to improve the trail surfaces and enhance signage, to address safety concerns and improve visibility. The Town should also explore extending the trail south to New Meadow Road from Linden Road, which would require either acquiring easements or property, and east through the Town-owned park on Sowams Road north of Sowams Nursery. Another opportunity is the extension of the trail north of Christine Drive to Land Trust property at the end of Ferrier Avenue. Trails that branch off the main north-south trail should be evaluated to determine whether any should be closed or rerouted.

- *St. Andrews Farm and Tall Cedars.* St. Andrews Farm is strategically situated on Middle Highway, at the end of Federal Road where there are plans to extend a biking/walking trail along the north side from the High School to the park. A short walk from St. Andrews Farm is the Tall Cedars conservation area, which also includes trails. A few blocks to the west are more trails, in Haines State Park. The trail system at St. Andrews Farm is well-marked, looping around the rear perimeter of the site as well as crossing through to the end of Fountain Avenue.

  Improved trailblazing signage for each trail segment and directional signage near Middle

Figure 2: Veterans Park Trail Planning

Figure 5. In 2011, the Town began working with the National Park Service to develop a passive park improvement plan for Veterans Park.

Highway and from points to the south and west of the park would help encourage neighborhood use of the park. The easement on the property put in place when the land was donated restricts the use of bicycles in the park; it is recommended this be revisited to allow limited bicycle use on the east-west trail segment, which connects at Fountain Avenue and at the park's parking lot. The Town should also improve linkages (for example, with signage) from the park to Tall Cedars and Haines State Park to the west.

- *South Lake Drive.* South Lake Drive is a narrow, winding and scenic Town street that passes to the south and east of Echo Lake, past the Land Trust's "Sowams Woods" site on Washington Road and alongside the RI Country Club golf course.

  The street is in poor condition. People have voiced concerns about potential safety issues that arise as vehicles and pedestrians and bicyclists share the same narrow roadway. The Town should consider measures to slow vehicles, as well as designate areas on a portion or just off the street for pedestrians. The Town should also improve the connection between South Lake and the nearby East Bay Bike Path.

- *Haines Memorial State Park.* State-owned and Town-maintained, Haines Park has an established, well-used network of trails. The trails have been mapped by the Town using GPS. A more detailed trails assessment is needed to identify and close off duplicate trails, as there are areas where trails run parallel to one another. The trails would also benefit from clear trailhead markers and trailblazing signs.

  Past plans for the park called for extending a pedestrian bridge across Annawumscutt Creek; this idea needs further evaluation and consultation with the State. An informal trail runs through the old O'Bannon Mill property into the park from the south, along the eastern shore of a pond, an important habitat and nesting area. Requiring a formalized trail connection as part of the future redevelopment of the former mill site, or acquisition by the Town or other entity for open space / trail purposes, either of the property or an easement, should be evaluated.

- *Osamequin Park / Walker Farm.* Osamequin Park has a well-marked network of trails and features a location map at the parking area on Wampanoag Trail. The location map is in need of replacement, and eventually the trailblazing signs, though effective, should be replaced with markers that are consistent with those to be installed at Veterans Memorial Park. The Town should also consider creating a connection through to the public parking area in Walker Farm. Currently a trail in Osamequin Park terminates at Walker Farm at the leaf refuse area. There are no signs directing people from Walker Farm to the Osamequin trails. The Barrington Garden Club is co-steward of the property, along with the Department of Public Works.

- *Vitullo Farm.* Vitullo Farm on the Wampanoag Trail features cultivated farmland near the road, but also forested wetland areas and unused open fields to the rear. The Town has plans to install an improved gravel parking area near the road that would serve as parking for the Barrington Community Garden as well as for future public trails developed at the site. Continued input from the community will be needed as plans are implemented.

"Blueway" Trails

A blueway, or water trail, is a mapped water route that includes launch locations and other points of interest for paddling (canoeists and kayakers). The Town has multiple sites that could become part of the Blueway trail maps maintained by the RI Land Trust Council. Warren and Bristol have canoeing and kayaking routes on the map. No routes are shown within

Barrington, despite opportunities to launch at sites across town, including Police Cove, Barrington Beach, Haines Park, and Walker Farm.

The Town should work to become part of the Blueway mapping project and seek to add new sites where feasible. One new launch will be added on the Barrington River near the Public Library. As part of a passive park improvement project, with funding from an $84,000 RIDEM grant, the Town will be adding a canoe/kayak launch at the water's edge, as well as benches and an improved path, within a Town-owned grassed area that abuts the water.

Public Access Points

Public rights of way provide connections to the water at the shore, often at the ends of streets, but also through open space properties such as Walker Farm and Osamequin Park. To date, the Coastal Resources Management Council (CRMC) has designated only two shore access points as public rights-of-ways where CRMC for the general public's use: the Daunis right-of-way at end of Nayatt Road along Mussachuck Creek and Teed Avenue at the west end of Mason Road.

However, there are many more public access points to the shore throughout town, according to the Town's Harbor Management Plan. That Plan identified 45 access points in Barrington based on reports and other information from CRMC, the Coastal Resources Center, Town Assessor's Plat maps and public input at Town Council meetings on the issue.

Please refer to the Harbor Management Plan for the complete inventory of access ways, as well as a list of recommendations to identify, regulate and manage public access points to the water. The development of hiking trails, as well as "Blueways" trails on the water, should take advantage of these rights-of-way , in a manner that is consistent with the Barrington Harbor Management Plan.

Goals, Objectives, Policies and Actions

Goal OR-1: Meet the community's evolving recreational needs, both passive and active, by providing high quality multiple-use outdoor recreation facilities benefiting people of all ages.

Policy OR-1.1.1: Emphasize improving existing facilities over acquisition of new properties in order to fully realize the potential of the Town's assets and limit conversion of natural areas into active recreational facilities.

Actions

A. Develop park master plans in order to establish capital improvement priorities. Priority sites are as follows:
   - Veterans Park (east side of Brickyard Pond)
   - Veterans Park (Legion Way area)
   - St. Andrew's Farm on Middle Highway
   - Walker Farm on County Road
   - Currier Park on Old County Road
   - "The Place" on Middle Highway and College Lane
B. Include park improvements in long-term capital budget planning based on master plan priorities. Budgeting for the park improvements will put the Town in the position of leveraging local funding with grants that require a match.
C. Continue lease with State for use of facilities at Haines Park within town.
D. Pursue the installation of synthetic turf at Victory Field, subject to an evaluation of the costs and benefits compared to natural turf.
E. Require public outdoor recreational space within "Senior Residential Village" and "Village" sites, per Appendix II.

Goal OR-2: Create an "emerald chain" of parks by establishing and improving linkages between and within recreational areas throughout town, including facilities at schools, to provide passive

recreation opportunities and alternative routes to parks and other areas throughout town.

Policy OR-2.1.1: Support creation of a cohesive system of open space properties and trails.

Actions

A. Generate a plan for developing trails and other connections between recreational areas in coordination with open space planning, including working with the State (Bike Path) and the Water Authority (Nayatt wellfield) to establish formal, clearly marked linkages to Town properties.
B. Create standards for trail markers, park signage and other improvements are needed to create a consistent, high-quality system of open space, trails and passive parks throughout town.
C. Establish a sustainable funding program to continue with the trail improvement program and assist with acquisition. The funding source could be used to provide the local match for open space acquisition grants or trails grants and help cover soft costs related to acquisition, such as surveys and legal fees.
D. Complete trail improvements, starting with Veterans Park, including updating trailblazing signs, and adding informational signage and maps. Other priority sites include: the former Vitullo Farm site/Divine Vargus conservation area and Haines Park.
E. Seek to acquire property or easements to extend trails at Veterans Park and in the Hampden Meadows Greenbelt.
F. Establish South Lake Drive between Washington Road and North Lake Drive as a multimodal facility providing a safe walking/biking area within the right of way while also maintaining vehicular traffic.
G. Require trail connections when key sites are developed, including the O'Bannon Mill site and the former Zion Bible Institute campus.

See the Implementation element for information on implementation schedule, priorities, estimated costs, responsibilities and action types.

Goal OR-3: Provide access to the shore through public recreational sites and public rights of way.

Policy OR-3.1.1: Enhance and protect public access to the shore and waterways through public recreational sites and designated public rights of way.

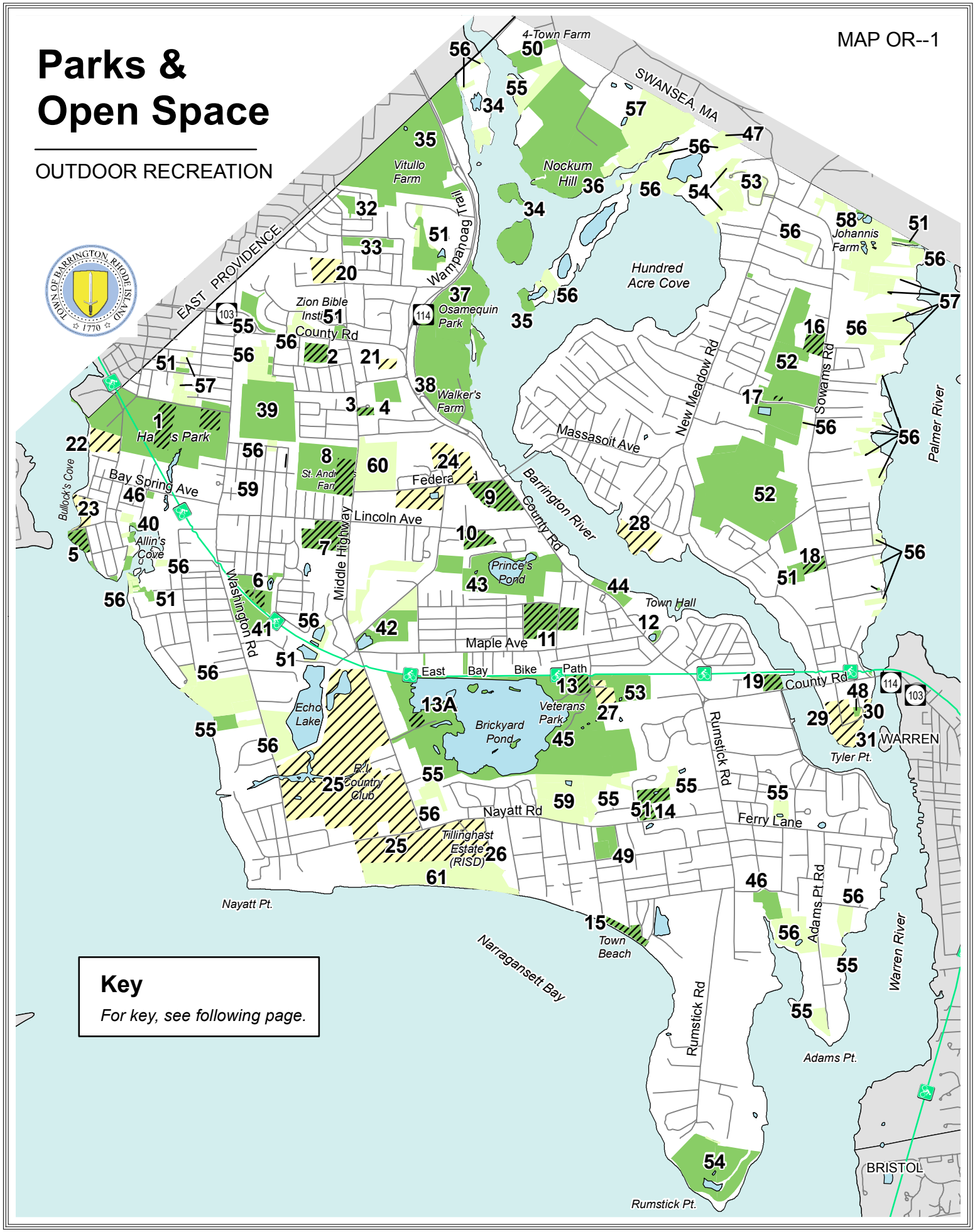
Actions

A. Work with East Bay communities on locating and mapping water trails. In Barrington, the mapping should show access points, destination areas and significant features along the trail route within the Barrington River and Hundred Acre Cove, and the Providence River / Narragansett Bay / Bullock Cove.
B. Provide amenities at the Police Cove park site to create a Blueway Trail destination for paddlers – including construction of a transient dock and completion of the planned boat ramp reconstruction.
C. Assess public access and evaluate maintenance needs at all public rights of way to the water. The Harbor Commission should work to ensure the rights of way are clearly marked and safe for pedestrians; consider installation of granite markers. Surveys might be needed to identify and eliminate encroachments.

Parks & Open Space

OUTDOOR RECREATION

MAP OR--1



Key

For key, see following page.

0 4,000 8,000 Feet

SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

KEY: PARKS AND OPEN SPACE MAP

PUBLICLY OWNED RECREATION

1.Haines State Park
1 Senior League, 2 Little League, 2 multipurpose fields, dog park, picnic areas, trails, boat ramp (in E. Providence portion)

2.Sherwood Park
1 Little League field

3.Primrose Hill School
1 Little League field (not up to standard), play area, tot lot

4.Currier Park
Picnic area

5.Latham Avenue Recreation Area
Playground, benches/walkways, kayak/canoe launch, fishing

6.Bicknell Park
1 Little League field, game area

7.Middle Hwy/Middle School Facilities
1 Senior League, 1 multipurpose field, 2 basketball courts (new), 4 tennis courts, practice wall

8.St. Andrews - Public Park
1 soccer field, trails

9.Barrington High School
1 football, 2 high school baseball (also used for senior leagues), 2 softball, 2 soccer/lacrosse, 1 hockey field

10. Lincoln Ave. Park
6 tennis cts, 1 softball, 1 multipurpose field, trail connection

11.Chianese Park
1 Little League, 2 soccer fields, 1 basketball ct, 1 tennis ct

12.Town Hall / Peck Center / Wood's Pond
Playground (Kids Kove), gazebo, walking paths, public gardens

13/13A. Veterans Memorial Park - Active Rec.
Veterans Park 1 softball field (West Street)
skating rink ((Legoin Way)

14.Nayatt School
1 Little League and 1 softball field (not up to standard), game area, tot lot

15.Town Beach
Bathing beach, boat launch

16.Sowams School
2 Little League fields, 1 basketball ct, game area, tot lot

17.Kent Street Park
2 tennis courts, ice skating pond

18.Sowams Road Park
Undeveloped park - potential site for football/lacrosse field

19. Police Cove
Waterfront park, boat ramp, bike path parking

PRIVATELY OWNED RECREATION

20.Zion Bible Institute
6 tennis courts (closed), multipurpose field, gymnasium

21.Baptist Church
1 soccer field

22/23. Cove Havin Marina (22) / Lavin's Marina (23)
Boat slips, boat facilities

24.St. Andrews School
2 soccer fields, 4 tennis courts, skating rink

25.Rhode Island Country Club
18 hole golf course, swimming pool, 6 tennis courts

26.Rhode Island School of Design
Indoor activity center, bathing beach, play area

27.YMCA
Swimming pools (indoor, outdoor), gymnasium, tot lot

28.Private Beaches
Bathing beaches

29-31.Stanley's Boatyard (29);Striper Marina (30) Barrington Yacht Club (31)
Boat slips, moorings, boat launch and other services

PUBLIC OPEN SPACE / PASSIVE RECREATION

32.Orman Drive Park
Undeveloped park

33. "The Place"
Undeveloped open space (former site of "The Place")

34.One Hundred Acre Cove Parcels
State- and Town-owned marsh, conservation land

35.Divine Vargus Conservation Area
Conservation area

36.Nockum Hill
Agricultural (leased) fields, conservation/habitat area, marsh, trails

37.Osamequin Park
Conservation area with nature trails

38.Walker's Farm
Community gardens, boat launch, dock, trails

39.Tall Cedars
Conservation area

40.Allin's Cove Parcels
Marshland/Land Trust/Town parcels

41.Washington Park
Undeveloped park

42.Landfill #3 / Volpe Pond
Open space, 2 acre pond

43.Prince's Pond / Landfill #4
Open field (hammer throw), trails around pond

44.Prince's Hill Cemetery
Cemetery with walking paths

45. Veterans Memorial Park - Passive Park Areas
Trails, boat access, picnic areas, benches, fishing

46. Allin's Cemetery
Cemetery

47. Nockum Hill Cemetery
Cemetery

48. Tyler Point Cemetery
Cemetery

49. Forest Chapel Cemetery
Conservation area, trails

50. George Street Open Space
Undeveloped (future cemetery)

51. Town-Owned Parcels
Misc. undeveloped parcels

52. Hampden Meadows Greenbelt
Wooded conservation / passive recreation area (trails)

53. Town Open Space - "Brickyard Wetlands"
Town-owned parcel - passive recreation (trails)

54. Rumstick Point
State-owned marshland

PRIVATELY OWNED OPEN SPACE / OTHER

55. Conservation Easements
Conservation easements on private marshland and wetlands

56.Barrington Conservation Land Trust Parcels
Conservation land throughout town, including along Hundred Acre Cove, Palmer River, Providence River and Smith's Cove

57.Audubon Society Parcels
Conservation land - wildlife habitats and marshland - alongside Nockum Hill, Hundred Acre Cove, Palmer River, Haines Park

58.Johannis Farm
Land Trust-owned agricultural, wooded and marshland

59.Bristol County Water Authority Parcels
Water Authority-owned conservation land

60. St. Andrews School - Open Space
Wetlands/open space to west of campus

61. RI Country Club/RISD - Wetlands

Public Access: Natural Areas, Shoreline

OUTDOOR RECREATION

MAP OR-2

0 4,000 8,000 Feet

SOURCE: Town GIS, RIGIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

7 ENERGY

Overview

In 2011 the Barrington Town Council set an aggressive goal to reduce energy usage by 10 percent below 2009 levels for municipal and school facilities by the year 2015. Exceeding expectations, the Town in 2013 hit and surpassed that target—with overall building energy use at 14 percent below 2009.

Reducing energy use produces not only significant environmental benefits through reduced greenhouse gas emissions, but also improves the bottom line by cutting energy-related costs. Total energy bills in 2013 were almost 28 percent less than in 2009 saving the Town almost $500,000. Recent energy initiatives taken by the Town and Schools likely had an effect in reducing energy usage and cost. However, sustained success in energy reduction is proving to be challenging. Partial year data for 2014 indicate the energy costs and usage have begun to climb once again.

Given the importance of reducing energy usage—producing cost savings as well as environmental benefits—this Plan proposes taking steps to achieve a new reduction target: a goal of "20 by 2020." In other words, reduce overall energy usage, as measured against the 2009 baseline, by 20 percent by 2020.

Drawing from the Town's 2011 Strategic Energy Plan, the following pages outline a comprehensive set of strategies for the Town and School Department to achieve the 20 by 2020 target. This plan also offers strategies to encourage energy efficiency and renewable energy projects within the community at large.

In setting these goals and creating policies and actions to achieve them, the Town has a strong preference for long-term cost reduction. This means that the Town seeks to invest in high efficiency infrastructure that will pay off with reduced energy costs over a term of 8 years or less. For example, the Town will replace incan-

Setting an energy-reduction goal for buildings of "20 by 2020"

descent lighting with more expensive but more efficient and longer lasting LED lighting because the initial higher cost of bulbs will be repaid in a few short years and, over the lifetime of the more efficient LED lighting, the total costs are much lower.

This philosophy of prudent planning and investment inform the development of this element.

Existing Conditions

To determine the annual energy use of the municipal and school operations, the Town has collected data on electricity, natural gas, heating oil, gasoline and fuel use from each of department and the School Department.

This section summarizes the results of this effort and provides the Town's official energy use baseline (using fiscal year 2009), from which future energy reduction efforts will be measured. Impacts of strategies that have already been implemented since the baseline year also are evaluated.

Energy Use

Table 1 summarizes energy usage by sector—buildings, streetlights, sewer pump stations, vehicle fleets and seasonal buildings.

Municipal, School Buildings

For FY 2009, the Town spent $1,075,623 on energy for its school and municipal buildings, including electricity and heat. The schools had the highest energy consumption, with costs in excess of $820,000.

Table 2 (next page) provides comparison data, showing the energy intensity of each building

Table 1: Baseline Energy Use, Emissions and Costs—Fiscal Year 2009

	Energy (MMBTU)	GHGs (MTCO2E)	Cost
Buildings Total	**46,155**	**4,728**	**$ 1,075,623**
Municipal	12,307	1,294	$ 253,632
Library	3,653	430	$ 82,208
Public Safety	5,074	547	$ 103,029
Public Works	1,485	119	$ 27,379
Town Hall	2,095	198	$ 41,016
Schools	36,848	3,369	$ 821,991
Barrington High School	14,114	1,255	$ 297,772
Barrington Middle School	10,051	1,022	$ 233,205
Hampden Meadows	3,980	340	$ 76,750
Nayatt	2,677	244	$ 74,825
Primrose Hill	3,351	310	$ 90,074
Sowams	2,674	198	$ 49,365
Street Lighting Total	**2,044**	**430**	**$ 186,143**
Sewer Stations Total	**2,334**	**491**	**$ 95,253**
Seasonal Facilities Total	**150**	**32**	**$ 7,511**
Fleet Total	**12,808**	**863**	**$ 242,154**
Municipal	10,979	739	$ 210,227
DPW	7,526	507	$ 144,055
Police	2,428	164	$ 46,536
Fire	1,024	69	$ 19,636
Schools (excludes school buses)	1,830	123	$ 31,927

Source: Town of Barrington Strategic Energy Plan (January 2011)

(in thousand BTU (kBTU) per square foot) in FY 2009. The energy intensity allows the Town to better understand overall per-square-foot efficiency of a building, as one cannot determine that through direct total consumption. The buildings that consume the most energy overall are not necessarily the most inefficient buildings.

For example, the High School is the largest consumer of energy, yet is more efficient than several other municipal buildings on a per square footage basis. In fact, the High School is one of two buildings that have achieved an Energy Star rating based on the standards established by the US Environmental Protection Agency, given its current score of 80. Town Hall currently uses the least energy per square foot and has the highest Energy Star rating with a score of 86. The remaining buildings are not yet eligible for Energy Star rating as their scores are too low. However, six out of the 10 buildings are performing average or better than average when compared to similar buildings of their type.

Table 3 on the next page provides the details of the annual energy costs by fuel type in FY 2009 by building.

Fleet

Barrington's vehicle fleet in FY 2009 included 125 on-road, off-road, and marine vehicles and equipment for the various municipal departments, such as the Department of Public Works, Police, Fire, and Schools. The total diesel and gasoline utilized by the Town in FY 2009 was 97,033 gallons equating to a cost of $242,154. However, subsequent to the baseline year, the Town privatized the refuse and recycling pickup, allowing the reduction from the Town fleet of trucks previously used for that purpose. The fuel costs and usage are now borne by the private contractor—an indirect cost to the Town that is covered under the contract.

Lighting

The cost of public lighting is often a large expense for towns like Barrington. In particular, street lighting and traffic lights (described below) consume a significant amount of energy and can often be easily upgraded to more efficient models. These upgrades not only reduce municipal energy consumption but also reduce municipal energy costs.

- *Street Lighting*. The Town of Barrington maintains 1,773 outdoor lighting fixtures, primarily street lighting. The annual energy

Table 2: Energy Use and Intensity by Building—Fiscal Year 2009

	Total MMBTU	kBTU/SQ FT	Total Sq. Ft.	Energy Star Baseline Rating (1-100)
Library	3,653	83.4	43,783	N/A
Public Safety	5,074	131.1	38,714	N/A
High School	14,114	74.7	189,000	77
Public Works	1,485	65.6	22,651	N/A
Town Hall	2,095	58.2	35,991	86
Middle School	10,051	68.4	147,000	46
Hampden Meadows Sch.	3,980	85.6	46,500	19
Nayatt School	2,677	78.6	34,000	39
Primrose Hill School	3,351	92.9	36,000	20
Sowams School	2,674	91.3	29,300	24

Source: Town of Barrington Strategic Energy Plan (January 2011)

Table 3: Energy Costs by Building—Fiscal Year 2009

	Electricity	Natural Gas	Fuel Oil	Total
Barrington High School	$145,009	$152,763		$297,772
Barrington Middle School	$139,094	$94,111		$233,205
Hampden Meadows Elem.	$35,794	$34,142	$6,814	$76,750
Nayatt Elementary	$16,834		$57,991	$74,825
Primrose Hill Elementary	$21,620		$68,454	$90,074
Sowams Elementary	$18,266	$31,099		$49,365
Library	$54,525	$27,683		$82,208
Public Safety Building	$61,435	$41,594		$103,029
Public Works	$10,801	$16,578		$27,379
Town Hall	$20,581	$20,435		$41,016

Source: Town of Barrington Strategic Energy Plan (January 2011)

consumption for streetlights in FY 2009 was 599,000 kWh, which is the equivalent of 48,389 gallons of gasoline consumed.[1] The associated costs for this electricity in FY 2009 was $186,143.

- *Traffic Lights*. The few traffic lights that exist in Barrington are all owned by the State of Rhode Island. Therefore, the Town is not responsible for the maintenance or payment of the traffic lighting and signalization system and they are not included in the energy baseline.

Energy Upgrades

The Town and School Department have already taken significant action since the baseline year of FY 2009 to improve the overall efficiency of its buildings through the implementation of various energy efficiency strategies.

An analysis completed for the 2011 Strategic Energy Plan evaluated projects completed by the end of 2010, within 18 months of the baseline year. The total estimated savings from these projects, which include lighting upgrades, boiler replacements and HVAC improvements, totaled 1,857 MMBTU, and $63,666 in cost savings. This energy reduction represented nearly a third of the total reduction that the Town committed to achieve by 2015.

Measures put in place since 2010 have contributed to further energy savings. Examples include (with funding source identified):

- Upgraded lighting in the Council Chamber, including LED and higher efficiency compact fluorescent bulbs (Town funds);
- Conversion to LED streetlights at the Town Hall and Library parking lot and at the Police Cove parking lot. (Energy Efficiency and Conservation Block Grant (EECBG));
- Boiler and hot water tank replacement at the Public Safety Building (Competitive Energy Efficiency and Conservation Grant);
- Installation of high-efficiency windows in the Town Hall basement, replacing damaged, drafty windows (EECBG).

[1] Source: EPA Greenhouse Gas Equivalencies Calculator http://www.epa.gov/cleanenergy/energy-resources/calculator.html

Table 4: Building Energy Density, Cost—FY2009 to FY2013

	2009	2010	2011	2012	2013	% Change 2009-2013
Total Energy (kBtu)	49,037,071	43,667,050	45,438,884	37,589,647	42,330,096	-13.7%
Cost of Energy ($)	$1,077,131	$928,830	$985,970	$791,809	$779,029	-27.7%
Energy Cost ($/kBtu)	$0.022	$0.021	$0.022	$0.021	$0.018	-16.2%
Total Energy Density (kBTU/SF)						
Library / Senior Ctr.	83.4	69.7	88.5	53.0	60.4	-27.6%
Public Safety	131.1	110.1	112.3	79.3	84.9	-35.2%
Public Works	65.6	50.9	68.0	46.1	57.8	-11.9%
Town Hall	58.2	50.9	54.9	42.7	56.0	-3.7%
Barrington High School	74.7	70.2	69.9	59.2	67.9	-9.1%
Barrington Middle School	68.4	66.7	64.9	67.6	64.9	-5.1%
Hampden Meadows	82.3	60.7	71.8	59.6	71.0	-13.7%
Nayatt Elementary	80.9	70.0	64.2	46.2	67.8	-16.2%
Primrose Hill	92.0	70.2	72.8	54.4	72.6	-21.0%
Sowams Elementary	83.6	80.3	87.5	68.6	77.4	-7.3%

Source: Town of Barrington, School Department, Energy Committee

Recent energy projects completed by the School Department include upgrades of all of the lighting in the school buildings, the installation of occupancy sensors in almost all of the classrooms, and the installation of direct digital controls in all of the schools.

The roofs at Primrose and Nayatt Schools were replaced with insulated, white roofs designed for future installation of photovoltaic panels. The two schools have Solatube skylights in each of the corridors that maximize daylighting and reduce the need for artificial lighting.

In addition, School Department completed the full conversion from oil to natural gas at Hampden Meadows, Primrose Hill and Nayatt Schools. The total energy bills at the three schools—including electricity and heating— were $22,000 lower in FY2013 compared to FY2010, the last full fiscal year the schools used heating oil.

Table 4 shows the reduction in energy density (energy usage per square foot) has improved at all municipal buildings and schools. The greatest improvement at the Public Safety Building and the Library, after the energy efficiency upgrades described above. Schools that made the most progress were Primrose Hill, Nayatt and Hampden Meadows, all seeing double-digit percentage reductions in energy density from FY2009 to FY2013.

These gains are reflected in higher Energy Star scores, which have improved at all of Barrington's public schools comparing FY2009 with FY2013. This includes the High School, an Energy Star-certified building where the score increased from 75 in FY2009 to 80 in FY2013.

Energy Initiatives

The Town also has taken steps to encourage greater public and private in energy conservation efforts. Initiatives completed by the Town, School Department and Conservation Commission include the following:

Strategic Energy Plan, 2011

The Strategic Energy Plan was developed with the assistance of engineering consultant VHB Inc., with funding from a federal grant administered by the State. The Strategic Energy Plan included a detailed analysis of energy data and

estimated reductions in energy use from a list of completed and potential energy improvements. As mentioned above, the Energy Plan provided a basis for the development of this element, which is a new requirement of the State.

Energy Committee.
In 2007 the Town Council formed the volunteer Committee for Renewable Energy for Barrington (since renamed the "Energy Committee") to initially advise the Council on short- and long-term strategies to promote energy efficiency and conservation as well as exploring the feasibility of installing a wind turbine in the town, though that project did not proceed. The Committee continues to play a key role in gathering energy data, researching and promoting energy efficiency and renewable energy projects and providing education and assistance to residents and municipal departments through workshops and lectures. These volunteers have also alerted the Town about opportunities to reduce energy costs.

In 2014, the committee hosted a public workshop on energy opportunities, with energy experts from the State on hand to present information and answer questions.

"Barrington Goes Green"
In 2007, the Barrington Conservation Commission presented to the Town Council its recommendations on energy and other issues in a report, "Barrington Goes Green: An Environmental Mandate for the 21st Century." Many of its recommendations were included in the 2009 update of the Town's Comprehensive Community Plan as well as this plan. These included:

- Establishing a minimum of 4.5 percent of Town-acquired electricity from renewable energy sources by 2010; 10 percent by 2015; and 16 percent by 2020.
- Investigating the potential for developing or purchasing renewable energy resources such as wind, solar, biomass, and low impact hydroelectric power
- Instituting "Green Office" practices in partnership with the School Department and Town Manager, including policies on turning off computers, installing occupancy sensors in offices and improving recycling at Town and school buildings.
- Holding Town meetings/workshops for citizens to learn about energy efficiency, organic lawn care, water conservation and other topics.

Building Assessments
The Town and School Department have been taking advantage of utility-sponsored programs to assess the overall energy usage in the buildings and to take action to increase the efficiency of these buildings. Municipal projects completed include lighting upgrades, replacement of inefficient boilers, installation of occupancy sensors and replacement of police vehicles with more fuel efficient vehicles. The Town has utilized a National Grid-sponsored incentive program to complete some of these energy efficiency projects, mostly lighting projects.

The School Department had National Grid complete a "Whole Building Assessment" of the High School, which has provided a basis for identifying additional energy efficiency upgrades at this school, the Town's largest energy user.

Renewable Energy
Barrington has not yet installed a renewable energy system of significance. In 2009, the Town moved forward on developing a wind turbine off Legion Way, but the Council declined to proceed with the project due to a lack of reliable data, particularly in the amount of wind, as well as opposition from property owners in the vicinity. The Town is working on a small project which would provide solar panels in the parking lot at the Department of Public Works on Upland Way.

Regional Efforts
Barrington was a member of the East Bay Energy Consortium (EBEC), a consortium formed in 2009 that originally consisted of nine

cities and towns in the region. EBEC identified a site in Tiverton for a potential wind farm, with the financial benefits to benefit the EBEC communities. The wind project did not proceed past the feasibility stage, and the Consortium in 2014 disbanded.

Energy Star Challenge.
In 2010, the Town signed on to participate in the EPA Energy Star Challenge. Through this initiative the Town has committed to benchmark the energy use in its buildings and take actions to reduce its overall building energy consumption by 10 percent. The Energy Committee has supported this effort for the Town, collecting and inputting energy usage data from all municipal buildings for a baseline year of FY 2009 into the Energy Star Portfolio Manager tool. This tool makes it possible for the Town to compare its building energy consumption by type with other similar buildings in New England.

The data collected for the Energy Star Challenge was essential to the development of the 2011 Strategic Energy Plan. The effort also resulted in the qualification of two buildings—Town Hall and the High School—as Energy Star-rated facilities. Both buildings have Energy Star plaques marking this achievement.

Issues and Opportunities

Energy Reduction Target—Progress

Comparing energy usage in 2013 with the baseline year of 2009, the Town has reduced energy usage by 13.7 percent (see **Table 4** on the following page) and its energy costs by almost 28 percent, equating to more than $450,000 annually. This kind of success ought to encourage the Town to make further investments in energy efficiency and renewable energy that can pay off in terms of further cost savings and reduced environmental impact.

Table 4 shows the "energy density" of Town and school buildings—which in this case means the amount of total energy (electricity, natural gas/fuel oil)) divided by the floor area of a building. The higher the number, the greater the opportunities for energy savings. For example, the Public Safety Building has seen its energy density decrease from 131.1 to 85.9. The installation of a high efficiency boiler and hot water tank completed in 2012 using grant funding contributed to the improvement. With a score that is still the highest of all buildings, the Public Safety Building remains a good candidate for additional energy projects (such as targeting energy loss in the vehicle bay)

Identifying priority projects at this building and others will require ongoing analysis of energy usage, such as site visits of energy consultants offered through National Grid and more detailed energy audits of buildings, which are more extensive and likely require local funding.

Renewable Energy

As the Town achieves greater energy savings through efficiency upgrades, larger reductions will likely require renewable energy installations such as solar panels—which have dropped significantly in price in recent years. The Barrington Goes Green report recommended a target of 16% of municipal energy produced by renewable sources. The Town has not made progress toward this target, as no school or municipal renewable energy projects have come on line. However, the Town and Schools have taken initial steps toward renewable energy installations.

Town, School Buildings
For example, the Town in coordination with the Energy Committee completed preliminary work on installation of a canopy-mounted photovoltaic system within a parking lot at the Department of Public Works complex. The design

goal is an 18 KW system. In addition to this project, the Town should continue to explore solar panel projects for other municipal buildings to determine if they can be completed in a cost effective manner.

The groundwork has been laid for such projects on two of the Town's Schools, Primrose (see **Figure 1**) and Nayatt, where the roofs were replaced as part of normal maintenance with roofs designed for future installation of photovoltaic panels.

Solar Parks

The Town is also continuing to explore the use of closed landfills for "Solar Parks" in which photovoltaic panels are arrayed and may generate power which can be used by the Town directly or sold back to the grid to offset the Town's energy usage. There are a number of programs offered through the Rhode Island office of Energy Resources and the Town is investigating the possibility of grants available to make such a project cost effective.

Solar Incentive Programs—Private Property

The Town should capitalize on opportunities to promote solar installations at homes and businesses. An example is the "Solarize Rhode Island" program, launched by the State together with a non-profit marketing firm in 2014. The State anticipates expanding the program after the completion of pilot projects in three communities in 2015.

Solarize Rhode Island is a municipal-based program designed to reduce the cost of rooftop solar energy systems through the competitive selection of a installer in each town, tiered pricing and incentives, and marketing. More than 90 municipalities in Massachusetts and Connecticut have participated in a similar program, producing 16 megawatts of capacity, according to Commerce RI.

Energy Efficiency

The Town has had success in improving its energy efficiency and, although it has already achieved those goals which are most readily obtainable, there are additional areas where the Town can improve by, for example, replacing CFL lighting with LED lighting. Additional information from building energy audits or other similar types of assessments would help the Town prioritize energy efficiency projects.

Figure I: Primrose Hill School

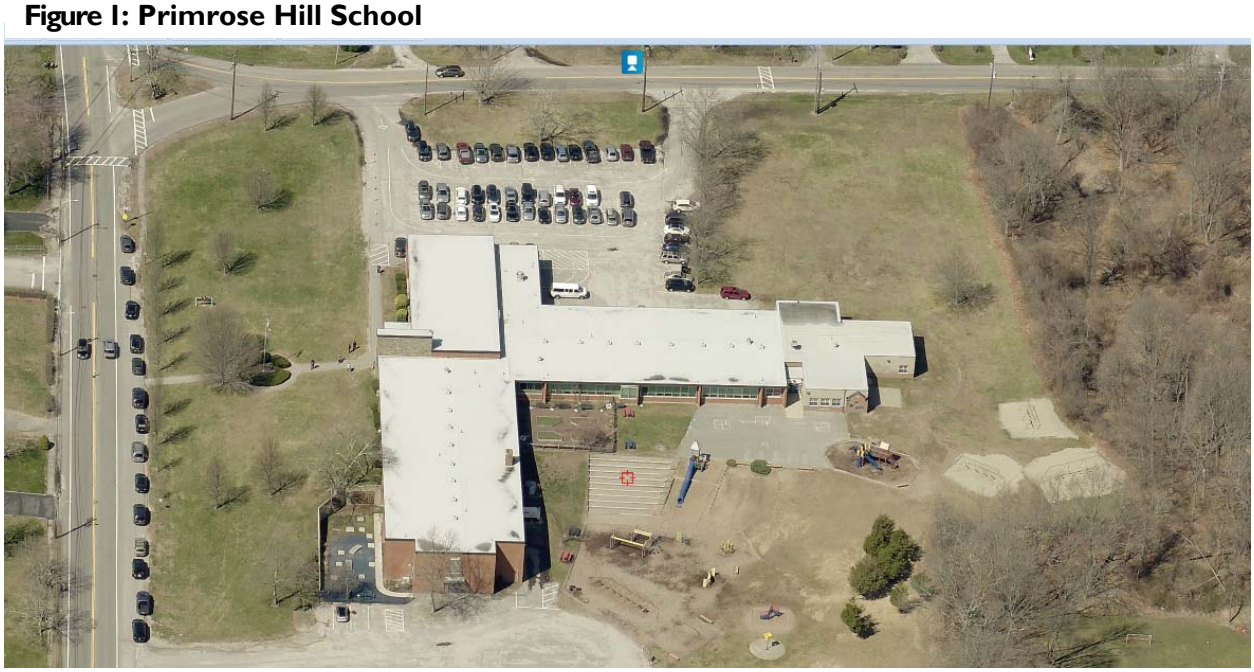


Table 5: Energy Cost by Sector—FY2009 to FY2013

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	% Change 2009-2013
School Electricity	$426,074	$385,555	$370,683	$321,698	$297,511	-30%
School Heat	$515,067	$330,499	$359,849	$265,202	$282,896	-45%
Municipal Electricity	$182,597	$156,701	$160,109	$136,739	$118,757	-35%
Municipal Heat	$133,540	$106,048	$111,393	$68,028	$75,996	-43%
Transportation	$230,938	$229,571	$193,164	$195,880	$200,182	-13%
Street Lighting	$186,551	$213,892	$207,495	$204,149	$208,317	12%
Sewer Stations	$104,134	$122,432	$114,216	$91,441	$97,908	-6%
TOTAL	$1,778,901	$1,544,698	$1,516,909	$1,283,137	$1,281,567	-28%

Source: Town of Barrington, School Department, Energy Committee

Street Lighting

The cost of streetlights is the one energy sector that has increased in recent years—rising 12 percent from $185,500 in FY2009 to $208,300 in FY2013 (see **Table 5**). The Town's streetlight bill from National Grid is based on a rate approved by the Public Utilities Commission. Without ownership of much of the streetlight system in town, Barrington must pay the established rate and has little control over the type of lights or maintenance. As a result, there is little incentive to reduce energy usage and costs, such as upgrading to LED.

Based on a recent change to state law, municipalities now have the option to acquire streetlights. Since the Town already pays the energy and maintenance costs for streetlights, the legislation provides the Town an opportunity to realize savings—such as through regional maintenance contract and conversion to LED fixtures. Implementation in 2014 was in its early stages.

The Town has had preliminary discussions about acquisition of the system and requirements for maintenance. Early indications are that this presents a great opportunity for the Town to reduce its maintenance costs and, by converting to LED lighting, its energy usage and overall lighting costs.

Sustainable Design Minimums—New Buildings

As the Town plans for major construction projects such as the Middle School and potentially a new Senior Center, there is potential to utilize sustainable building design, materials and infrastructure to ensure that future buildings will be constructed with a view toward reducing energy usage and costs. With new construction projects, the Town could consider geothermal heating and cooling, which can have a high up-front cost but also a short payback period.

Regional Opportunities

Potential regional projects include the acquisition and maintenance of streetlights and completion of energy efficiency in multiple town's projects through an energy service contractor (ESCO). Energy service contracts often require multi-million dollar projects in order to proceed—a good fit for a regional approach that combines multiple municipal and school projects.

Streetlight acquisition is now an option due to a 2013 State law giving municipalities throughout the state the option. Ownership of streetlights could produce significant cost savings, mostly through the use of regional streetlight maintenance contracts.

Fleets

The Town has opportunities to improve the fuel efficiency of its vehicle fleet through the vehicle replacement schedule in the Capital Improvement Program. Recently the Police Department began switching from Dodge Chargers to Ford Taurus Police Interceptors—which have higher fuel efficiency. Other departments that could achieve improved fuel efficiency include: Fire Department (non-apparatus), Public Works (supervisor vehicles), Town Manager, Building Official, School vehicles (other than buses).

Finance/Budget

In 2014, the Town created a reserve fund for energy projects, which provides flexibility on size, timing of installing energy projects on public property. Previously funding allocated for energy had to be spent within the budget year, which was a hurdle to completing projects given the lengthy lead time to plan, design and bid proposed improvements. This reserve fund allows for more thoughtful evaluation of energy projects and opportunities.

An initiative added to the Comprehensive Plan in 2009 that has not been implemented is the establishment of a Property Assessed Clean Energy (PACE) Financing Program. PACE lets homeowners utilize special property tax assessments to pay off the cost of energy efficiency and clean energy upgrades to their home. The PACE program could take various shapes depending on the local realities, including state enabling regulation requirements, ability of Town to implement and maintain a program, and overall political will to engage in such an initiative.

Monitoring and Verification

With the establishment of a baseline of energy use, the Town will need to continue to track actual energy reductions and identify opportunities to implement reduction strategies. The Town has joined the Energy Star Community Energy Challenge and taken advantage of the free online energy tracking tool, Portfolio Manager, as part of this program. This tool will be of most use to the Town moving forward if kept up to date on a monthly or quarterly basis.

Relevant staff should coordinate a streamlined process by which energy consumption and cost data for all facilities and fuel types is collected on a routine basis and uploaded into the Portfolio Manager tool. The regular updates of this data will be useful for the Town and School Department in prioritizing energy reduction strategies, but is also required as part of the benchmarking process in the Energy Star Community Energy Challenge. In addition to the consumption data, Portfolio Manager should be updated whenever there is a change of utility accounts, meters, changes to building square footage, opening or closing or change of use of a facility, etc. The Town and the School Department will need to coordinate internally to make sure this information is communicated to relevant staff and to the primary staff person responsible for keeping Portfolio Manager up to date.

The Town and Schools should provide an annual report to the community on its progress in implementing these various recommended strategies and achieving their energy reduction goals.

Public Outreach / Encouragement Efforts

The Town's Energy Committee and the State Energy Office are good resources for expanding educational efforts. The Committee, working with the Town and State, should continue its efforts to educate the public about energy issues and financial incentive programs.

The Committee could also help implement a "Green Business" program,[2] a program recommended in the Town's Strategic Energy

[2] For example, see: http://www.mcohio.org/services/go_green/green_business_certification_program/index.html

Table 6: FY09 Building Energy Use Baseline with Energy Reduction Targets (MMBTU)

	Electricity	Natural Gas	Fuel Oil	Total
Municipal and School Buildings	12,903	30,418	5,833	49,154
10% Reduction				**44,239**
20% Reduction				**39,323**

Source: Town of Barrington Strategic Energy Plan (January 2011)

Plan. This program allows local businesses to receive a "green" designation based on a set of previously identified criteria.

Local governments across the country are utilizing a green business program as a means to motivate local businesses to take action on energy and climate protection by linking them to existing utility programs and other resources to enable them to improve the efficiency of their operations and save money. Oftentimes these programs are complemented with a recognition program involving everything from a sticker to place in their window to an awards ceremony.

Goals, Objectives, Policies and Actions

Goal E-1: Make prudent investments in strategies to reduce energy usage and costs.

Objective E-1.1: Reduce overall municipal and school building energy usage by at least 20 percent by 2020, for a total energy use of no more than 39,323 MMBTU (see **Table 6**).

Policy E-1.1.1: Take advantage of new technologies to further reduce energy use and costs in municipal and school operations.

Policy E-1.1.2: Make capital investments where appropriate that will provide long term benefits in terms of reduced energy usage and costs.

Actions

A. Complete energy efficiency upgrades and renewable energy installations at municipal and school buildings, starting with the most cost-effective projects to maximize savings to help fund future projects.
B. Engage a consultant to develop a town-wide renewable energy plan, to include an evaluation of municipal and school sites for potential solar and other renewable energy installations, to include projected energy production, cost estimates, energy savings and estimated payback.
C. Strongly consider an investment in geothermal technology at new facilities, such as a new Middle School, if such an investment can provide long-term energy efficiency and cost savings.
D. Pursue acquisition of streetlights, to include a maintenance program that saves money and does not impact the Public Works staff.
E. Utilize savings from streetlight acquisition to convert streetlights, including parking lot lighting, to LED and cut-off fixtures.
F. Develop and implement plan to capitalize on the potential of LEDs, which can be programmed as well as controlled remotely.
G. Explore potential regional energy projects such as energy efficiency service contracts and streetlight acquisition, working with East Providence, Warren and Bristol and other communities.
H. Complete installation of computer power management tools at municipal, school buildings.
I. Install Town-wide energy management system that is compatible with school system's energy management software, if feasible.

Goal E-2. Improve vehicle fuel efficiency of municipal fleet vehicles.

Objective E-2.1: Increase fuel efficiency for non-diesel vehicles by 30 percent by 2030.

Policy E-2.1.1: Prioritize improvements to fuel efficiency through the vehicle replacement capital program, where feasible.

Actions

A. Establish a Green Fleets Program for municipal operations, which could include the following components:
   - An emphasis on fuel economy standards in bidding replacement vehicles for the municipal fleet, excepting DPW trucks and maintenance vehicles, provided performance standards can be met.
   - A requirement to meet certain MPG standards by class
   - An evaluation of the feasibility of electric or hybrid vehicles for certain municipal purposes.
   - A "no idling" policy for non-emergency vehicles

Goal E-3: Provide resources and set policies to achieve the Town's energy goals.

Policy E-3.1.1: Enact policies and financing mechanisms to support implementation of energy-reduction measures.

Actions

A. Establish a Revolving Energy Fund to create a more sustainable funding stream for energy efficiency and clean energy programs.
B. Capitalize on State, Federal and Utility sponsored incentives and grants to help fund energy efficiency and renewable energy projects.
C. Adopt Environmentally Preferable Purchasing (EPP) Program policies, which would include purchase of Energy Star equipment and requires taking various energy and sustainability principles into account when purchasing or contracting for the Town.

See the Implementation element for information on implementation schedule, priorities, estimated costs, responsibilities and action types.

D. Enact a policy requiring meetings at least annually of the school and municipal department heads to report on their efforts to meet the Town's energy goals and their plans to do so for the future, and to encourage the exchange of ideas and strategies to do so.

Goal E-4: Promote energy efficiency and renewable energy installations throughout the broader community.

Policy E-4.1.1: Encourage residents and businesses to adopt energy-efficiency measures and pursue renewable energy systems through information campaigns and incentives.

Actions

A. Establish a Property Assessed Clean Energy (PACE) Financing Program.
B. Implement a "Green Business" program where local businesses receive a "green" designation based on achieving a set of identified efficiency/sustainability criteria.
C. Consider an annual workshop to inform citizens about alternative energy opportunities and available resources to assist with conversion.
D. Provide annual reports on Barrington's progress toward achieving energy-reduction targets, as well as energy projects completed by the Town, School Department and private property owners.

8 NATURAL HAZARDS

Overview

In Barrington, the hurricanes of 1938 and 1954 are still remembered for their destructive force, more than a half century later. More recent events will not soon be forgotten either: Hurricane Bob (1991), Hurricane Irene (2011), and Hurricane Sandy (2012). Hurricanes are not the only hazards—blizzards and heavy rainstorms have resulted in power outages, flooding and other impacts—most notably the rains of March 2010 that flooded basements throughout town., and the blizzard of 2013 (Nemo), which left many without power for as long as a week.

With almost 20 miles of coastline, Barrington will continue to be threatened by hurricanes and nor'easters that hit New England. The risk will only grow, due to the projected rise in sea levels already affecting coastal communities.

The Natural Hazards element identifies potential natural hazards that could affect the community, including hurricanes, blizzards and impacts of rising sea levels; determines Barrington's vulnerability to these hazards; and establishes actions designed to mitigate the risks from natural hazards. The element draws from the Town's 2010 Multi-Hazard Mitigation Plan, as well as input from the public and Town departments, to identify critical issues and recommend steps that help reduce impacts of hazards on the community.

Existing Conditions

Community Context

Barrington has 19.6 miles of coastline, occupying two peninsulas bound by Narragansett Bay to the west and the Palmer and Warren Rivers to the east. The Barrington River separates the two peninsulas, and the Central Bridge and the Barrington River Bridge connect the two land masses. The western portion of Barrington, which includes the Village Center business district, is physically connected to the City of East Providence. The eastern portion of Barrington, which includes the Hampden Meadows neighborhood,

Downed power lines and damaged trees in the Hampden Meadows area resulting from Hurricane Irene (Aug. 2011)

is connected to the Town of Swansea, Massachusetts. No location in Barrington is more than two miles from coastal waters.

Barrington is classified as a medium-density developed community, with significant areas of wetland, public open space, and recreation land. Based on data from the Land Use element, Barrington is mostly residential, which comprises 55 percent (2,844 acres) of total land area within town. Commercial land comprises just two percent (119 acres), institutions (including government, schools and churches) comprise three percent (148 acres) and transportation and utilities makes up 0.6 percent (31 acres) of the land. Wetlands, forest, agricultural areas, vacant/transitional areas, parks and other open space make up most of the remainder of the landscape (38 percent, or 1,970 acres).

Natural Hazards: Threats

The most prevalent natural hazard facing the Town of Barrington is flooding. Flooding may occur quickly or over a period of days and can result from a number of natural hazards. Storm surge[1] from hurricanes and winter storms often results in coastal flooding and erosion. Because of Barrington's low, coastal location, relatively flat topography, and large areas of inland water and wetlands, flooding is a pervasive problem in many areas. Based on State GIS data, almost two-thirds of the land area within town is within a FEMA-designated flood zone: six percent within Velocity zones, 36 percent within 100-year zones, and 24 percent within the 500-year flood zone.

High winds associated with a variety of seasonal storms, including hurricanes and winter storms, are also a frequent natural hazard in Barrington, particularly along the coastal areas. Wildfires, earthquakes, and hailstorms are considered to be low-risk natural hazards for Barrington, although all have the potential to occur.

Hurricanes

The New England District of the U.S. Army Corps of Engineers, using data from the National Hurricane Center, developed maps depicting the worst case scenario for coastal inundation from storm surge for Category 1 through 4 hurricanes striking the coast of Rhode Island (see **Map NH-1**). Hurricane

Table 1. Significant Hurricanes in Rhode Island

Date	Name	Category	Property Damage	Deaths
September 21, 1938	N/A	3	$100,000,000	262
September 14, 1944	N/A	3	$2,000,000	0
August 31, 1954	Carol	2	$200,000,000	19
August 17-20, 1955	Diane	Trop. Storm	$175,000,000	0
September 12, 1960	Donna	2	$2,400,000	0
September 27, 1985	Gloria	2	$19,800,000	2
August 19, 1991	Bob	2	$115,000,000	0
August 27, 2011	Irene	Trop. Storm	$9,300,000	0

Sources: Rhode Island State Hazard Mitigation Plan, 2014; Town of Barrington Natural Hazards Mitigation Plan, 2010; National Weather Service Forecast Office, Boston, MA, http://www.erh.noaa.gov/box/hurricane/tropicalCycloneReview.shtm.

[1] The National Oceanic Atmospheric Administration describes storm surge as "the abnormal rise in water level, over and above the regular astronomical tide, caused by a severe storm such as a tropical cyclone or nor'easter. Large waves also raise coastal water levels and ride on top of the storm surge to cause extreme damage. Coastal inundation is the flooding of normally dry, low-lying coastal land, primarily caused by severe weather events along the coasts, estuaries, and adjoining rivers." Source: http://www.stormsurge.noaa.gov/

surge values were developed using the SLOSH (Sea Lake and Overland Surge from Hurricanes) model, which estimates storm surge heights through hypothetical measures of pressure, size, forward speed, track, and winds.

According to the National Hurricane Center, approximately six Atlantic tropical storms mature into hurricanes in an average year. The RI State Hazard Mitigation Plan indicates that Rhode Island is particularly vulnerable to hurricanes due to its geographic location and features such as Narragansett Bay, which can act as a funnel for hurricane surges. The State plan indicates that in any given year, the probability of a hurricane reaching Rhode Island is six percent. **Table 1** (previous page) lists significant hurricanes starting with the Hurricane of 1938.

Barrington's coastal location and low elevation makes it particularly susceptible to hurricane-related hazards, and the town's small size means that the majority of properties are vulnerable to hurricane impacts to some degree. It is evident that under this worst case model, even Category 1 and Category 2 hurricanes could produce storm surges that inundate large areas of town, particularly in Hampden Meadows. Hurricanes have the potential to cause coastal erosion, particularly along Barrington's southern and western shores.

Severe Rainstorms and Floods

Barrington is a low-lying community virtually surrounded by water and containing approximately 6.9 square miles of inland water. As a result, several areas of town can be flooded by heavy rains or storm surge. FEMA has designated flood zones for Rhode Island according to varying levels of flood risk. Each zone reflects the potential severity and type of flooding in the area. High risk areas in Barrington are designated as Zone AE and Zone VE.

Zone AE, or the 100-year Flood Zone, identifies areas with a one percent or greater chance of flooding in any given year and where the base flood elevation has been determined. Zone VE identifies the Velocity Zone, which are coastal areas with a one percent or greater

Table 2. Severe Rainfall and Floods in Bristol County, Rhode Island, 1993-2010

Date	Type	Rainfall (inches)	Notes
January 10, 1997	Coastal Flood	N/A	2-4 foot tidal surge in Narragansett Bay. Palmer River flooded some Barrington streets.
March 28, 2005	Flood	3-4	Flooding in poor drainage areas; significant street flooding.
June 7, 2006	Flood	2-4	Some street flooding.
October 28, 2006	Coastal Flood	2-4	Significant coastal flooding; some street flooding.
March 2, 2007	Flood	2-3	Urban, small stream; some street flooding.
February 13, 2008	Flood	2-4	Flooding in streams and poor drainage areas; some minor river flooding; minor wind damage from strong northeast winds, especially along the coast.
March 8, 2008	Coastal Flood	2-3	Minor coastal flooding due to high tide, rough seas, and storm surge.
December 12, 2008	Flood	3-5	Small stream and some street flooding.
March 2010	Flood	8	Upland Way/Maple Avenue/Middle Highway intersection flooded. Widespread basement flooding.

Sources: National Climatic Data Center, http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms, Rhode Island Department of Transportation, http://www.dot.state.ri.us/Flooded_streets_March2010.asp#Closures

Table 3. Estimated Number of Structures in Flood Zones

Use	Residential		Commercial		Marina		Institutional		Public School/ Municipal	
Zone	AE	VE	AE	VE	AE	VE	AE	VE	AE	VE
Structures	1,068	29	28	1	4	-	2	-	1	-

Source: Town of Barrington GIS data

chance of flooding plus storm-induced waves, or velocity action.

The Flood Insurance Rate Maps (FIRMs) for Barrington and the rest of Bristol County were made effective July 7, 2014. Current flood zone mapping for Barrington shows the Velocity Zone occurring along much of the western and southern coast, where the town is proximate to Narragansett Bay and the Warren River (see **Map NH-2**). Areas of undeveloped coastal wetland can be found along Rumstick Point, between Nayatt Point and Town Beach, and along Mussachuck Creek. These areas may help minimize the effects of localized flooding.

The 100-year Flood Zone extends inland to include low-lying areas such as the land near Brickyard Pond and Echo Lake, and the estuarine wetlands associated with the Barrington River, 100-Acre Cove, and the Palmer River.

Barrington regularly experiences storms and heavy rains that result in localized flooding. Several of the most significant recent floods to occur in Bristol County are highlighted in **Table 2** (previous page). In March 2010 storms and periods of heavy rain resulted in significant flooding in the state and resulted in a Presidential Major Disaster Declaration for Rhode Island, including Bristol County. Barrington experienced substantial flooding in some areas. As it has done several times in the past, the RI Department of Transportation (RIDOT) closed the intersection of Middle Highway and Maple Avenue for several days due to flooding from Volpe Pond and associated wetlands. This area has been identified on the currently available FIRM as a minimal flood hazard because it is located well outside 100-year Flood Zone, and even outside the 500-year Flood Zone, or the 0.2 percent chance annual floodplain.

Table 3 provides an estimated count of the number of structures (excluding accessory buildings) within flood zones in Barrington, based on the flood maps in effect as of July 2014. While it is difficult to predict flood events, FEMA has determined that properties in Zone AE and Zone VE have a 26 percent chance of flooding over the life of a 30-year mortgage.

Barrington has three dams, all located on the west side of town: the Echo Lake Dam and the Rhode Island Country Club Dam are three-foot earthen dams that control flow from Echo Lake and Mussachuck Creek, while a third, privately owned dam controls flow from Annawamscutt Brook to Allin's Cove. This dam is located adjacent to an elderly housing complex, and the headwater is lower than the lowest level of the complex. All three dams are located in the 100-year Flood Zone (Zone AE).

Inventoried dams in Rhode Island are classified by size and hazard rating. The size classification provides a relative description of small, medium, or large, based on the storage capacity and height of the impounded water.

The hazard classification relates to the probable consequences of failure or misoperation of the dam. The Rhode Island Country Club Dam and the Echo Lake Dam were classified as low hazard dams in the 2009 Annual Dam Safety Report from the Rhode Island Department of Environmental Management. The third is unclassi-

fied Failure or misoperation of low hazard dams is determined to result in no probable loss of human life and low economic losses.

Winter Storms

Winter storms are a regular occurrence in Barrington, with snowfall ranging from a few inches to blizzard conditions, including sustained winds or frequent gusts up to 35 mph or greater, and considerable falling snow, broken tree limbs, loss of power, and reduced visibility to less than a quarter mile. Barrington has experienced several notable blizzards and winter storms over the years (see **Table 4**).

The Blizzard of 1978 is perhaps the most significant and memorable snowstorm to hit Rhode Island, resulting in a virtual shut-down of commerce and transportation across the state for several days, 21 deaths, and millions of dollars of damages. More recently, the powerful winter storm Nemo of February 2013 produced significant snowfall and heavy winds, resulting in power outages that left areas of Barrington without power for as long as a week. Across the state, more than 150 people were hospitalized.

Low-Risk Hazards

Low-risk hazards include droughts, earthquakes, tornadoes, wildfires and hailstorms.

- *Droughts.* According to the RI Water 2030 plan, there have been just six historical drought events since 1929, most with statewide impacts.
- *Earthquakes.* There are no significant geologic fault lines in Rhode Island or New England, and the U.S. Geological Survey's (USGS) Earthquake Hazards Program identifies all of Rhode Island as occurring in a low seismic risk area (<2%g peak acceleration).
- *Tornadoes.* Tornadoes are a rare occurrence in Rhode Island, but a risk does exist, particularly during hurricane season (June through October). Between 1953 and 2004 Rhode Island had almost no tornadoes, but on July 23, 2008 an F1 scale tornado began just off of Rumstick Point in Barrington and then moved to land in Warren. The tornado's path was 3.0 miles long and 40 yards wide, with winds reaching speeds of 65-75 mph. Total damage, mostly to trees, was minor, estimated at $45,000. No injuries were reported.
- *Wildfires.* Based on 2011 land use figures, approximately 38 percent of Barrington is forested (1,969 acres), and approximately one percent is brush/transitional (45 acres). Wooded areas are generally surrounded by development. Significant wildfires have not been known to occur in Barrington, although occasional brush fires have occurred in the wooded parts of town.

Table 4. Significant Snowstorms—Bristol County, 2003-2014

Date	Snowfall (inches)	Notes
February 17, 2003	12 to 24	Numerous traffic accidents throughout RI.
March 6, 2003	6 to 10	Numerous traffic accidents throughout RI.
December 5, 2003	10 to 20	15 inches in Barrington; transportation disrupted.
January 22, 2005	21	Coastal flooding; transportation disrupted.
February 12, 2006	9 to 14	
December 13, 2007	12	Transportation disrupted; Providence shut down.
December 19, 2008	10 to 11	
December 19, 2009	18 to 21	Transportation difficult; schools closed.
December 26, 2010	6 to 10	
January 26, 2011	9 to 10	
February 8, 2013	24 to 30	Gusts of 74+ mph; 170 people hospitalized in RI; widespread power outages

Source: National Climatic Data Center, http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms

- *Hailstorms*. Hail is a showery precipitation in the form of irregular pellets or balls of ice more than 5 millimeters in diameter. Hailstorms have been a relatively infrequent occurrence in Barrington – the National Climatic Data Center lists three hailstorms occurring in Barrington between 1950 and 2014.

Future Development

Barrington has limited vacant land available for future development. The Housing & Neighborhoods element calls for development of key remaining areas to fulfill current land use needs such as affordable and senior housing. The most significant site is the Zion Bible Institute along Middle Highway.

The Zion Bible Institute property is in a low-risk area for natural hazards, situated outside of hurricane surge inundation zones. Areas designated for redevelopment and re-use of historic structures are outside flood zones.

New development, consisting of 40 new affordable housing units, mostly duplexes, is planned for the Sowams Nursery site on the east side of Sowams Road, The site is partially located within the 100-year Flood Zone (areas nearest the Palmer River), but the master plan approved for this area does not call for structures to be placed within this zone.

The Town is in the process of building a park at the "Police Cove" site, located north of County Road fronting on the Barrington River. The site is at risk for flooding, as it is largely located within the 100-year Flood Zone and subject to storm surge from a Category 1 hurricane. Plans for the park, scheduled for completion in spring/summer of 2015, call for a reduction of impervious surface and additional storm water management features that will help the site better handle any future flooding.

Existing, Ongoing Mitigation Measures

Building Codes

The Town's building official is responsible for ensuring new structures meet building code requirements. Before a building permit is issued for construction in the AE or VE zone, an elevation certificate that verifies a proposed structure meets the minimum elevation requirements must be submitted to the building official. Other building code requirements include:

- Any construction below the
- Structures are required to be able to withstand 110-mile-per-hour winds, or a Category 2 hurricane.
- Bridges must be built to withstand seismic forces based on the bridge's classification and site-specific geophysical conditions.
- Residential and commercial structures must be designed and built to resist the effects of earthquake motions based on site-specific elements such as soil profile and ground motion.

Regulations and Ordinances

The Town has enacted regulatory restrictions designed to reduce the potential impacts of flooding to property by limiting development in and around wetlands and flood-prone areas.

Article XXIII of the Zoning Ordinance regulates development within areas of special flood hazard. The floodplain ordinance was last amended on June 2, 2014, representing adoption of the official Flood Insurance Rate Maps effective July 7, 2014. Article XXIII establishes Special Flood Hazard Areas – areas designated AE or VE on the FIRM panels – as a floodplain overlay district. Within the overlay district, all proposed construction or other development requires a permit – not just projects where building permits are required.

Development projects "include any filling, grading, excavation, mining, drilling, storage of materials, temporary stream crossings." Con-

Table 5. National Flood Insurance Policies and Claims—Bristol County (as of 7/31/13)

Municipality	Number of Policies In-Force	Coverage Total $	Annual Premium	Number of Claims*	Claim Total Value*	Average Claim Value $
Barrington	1,058	$293,975,100	$1,445,523	421	$1,546,326	$3,673
Bristol	619	$138,955,500	$877,963	189	$1,397,949	$7,397
Warren	464	$86,213,400	$587,957	132	$1,217,785	$9,226

*From Jan. 1, 1978 to July 31, 2013

Source: FEMA BureauNet / Rhode Island State Hazard Mitigation Plan

struction or other development within the overlay district not covered by a building permit would be subject to approval by CRMC or RIDEM, as applicable; the building official is to have an opportunity to comment and must keep a copy of the permit on file.

In 1994 the Town adopted a Wetlands Overlay District Zoning Ordinance that requires a special use permit from the Zoning Board for proposed activities within the 100-foot wetland setback. The ordinance also prohibits any reduction in flood storage capacity, and the storage of materials or equipment which could cause damage under flood conditions.

National Flood Insurance Program

Barrington is a member of the National Flood Insurance Program, a federal program created by Congress in 1968 that makes flood insurance available to communities that enact minimum floodplain management regulations. The Town, as previously noted, has more than 1,000 residential and commercial structures in the flood zone. As of July 2013, there were 1,058 flood insurance policies in effect, totaling almost $300,000,000 in property value. The number and total dollar coverage of policies in Barrington far exceeds that of either Bristol or Warren (see **Table 5**).

There are approximately 14 repetitive loss properties in town, of which two have been mitigated, according to the RI Emergency Management Agency. Repetitive flood loss properties are properties that are currently insured through the NFIP for which two or more losses of at least $1,000 each have been paid within any 10-year period since 1978.

The Town in 2014 applied for a FEMA Hazard Mitigation Grant on behalf of seven property owners who were seeking assistance to elevate their houses out of the flood zone (review was ongoing as of fall 2014). The private property owner is required to provide the minimum 25 percent match. Similar grant opportunities are likely to become available in the future.

Protection and Restoration of Coastline

Barrington has worked with the State and conservation organizations such as the Barrington Land Conservation Trust and Save the Bay to restore degraded wetlands in critical areas, which helps reduce the risk of damages from flooding events.

In 2006 a significant wetland restoration project was completed that restored approximately 11 acres of degraded coastal wetlands at the mouth of Allin's Cove. This project was also critical for halting erosion of the shoreline along Byway Road, which had the potential to undermine the structural integrity of the road. Efforts to address erosion along the Byway Road shoreline are ongoing. The installation in 2013 of sand-filled coir envelopes (see **Figure 1**, next page) provided a base for establishing vegetation needed to stabilize the slope. This area is susceptible to damage from wave action, such that the area requires periodic monitoring and repair.

The Town has worked on shoreline projects in other coastal areas as well. At Latham Park and Barrington Beach, the Town completed projects intended to restore coastal protection features, reduce potential structural flood damage, stabilize shorelines, and enhance public access.

Improvements at Town Beach have taken place in two phases. In 2011, the Town built a new beach house with restrooms and office space, replacing a 1950s cinderblock restroom building that was located within the VE zone. The new building was built on piles and set back away from the shoreline to meet floodplain elevation requirements.

The second phase consisted of site improvements were completed in 2014, including the removal of excess asphalt, allowing the shifting of the parking lot away from the water by 10 to 12 feet. New bioretention swales were built to capture and treat storm-water from adjacent streets, with the added effect of reducing beach erosion. About 20 parking spaces at the west end of the parking lot were eliminated to allow for additional asphalt removal within an area most vulnerable to impacts from storms and flooding. Beach grass has been planted (see **Figure 2**, next page) within the new beach created with the asphalt removal, in an effort to establish new vegetation and, over time, protective dunes.

The Latham Park project was completed in summer 2014. It included repairs to the existing revetment protecting the shoreline along Bullock Cove, with additional public access provided to the water. Reconfiguration of the parking lot shifted pavement away from the water's edge, allowing for additional plantings, storm-water retention and a new public walkway with benches in the park adjacent to the revetment.

Other recent/ongoing projects include:

- *Walker Farm marsh restoration.* In 2005, restoration of the Walker Farm marsh was

Figure 1. Shoreline protection project—Byway Road

Save the Bay worked with the Town and volunteers to install coir envelopes to stabilize and re-vegetate an eroded embankment on Allin's Cove near the end of Byway Road.

completed, increasing the size of the marsh to 15 acres and addressing problems on the site from historic alterations, including roads and dam structures. This property separates Route 103/114 from the Barrington River and 100-Acre Cove, and is vital for storing flood waters.

- *Mussachuck Creek*. In 2007 restoration work was completed along Mussachuck Creek, restoring the tidal flow and aquatic system after sand buildup restricted the inlet.
- *The former "Vitullo Farm" site on Wampanoag Trail*. The reconstruction of the gravel driveway and parking area near Wampanoag Trail included providing additional area needed to allow for the expansion of a coastal wetland.
- *RISD marsh*. Save the Bay has been working with RISD to improve the health of coastal marsh areas at Tillinghast Estate off Nayatt Road by improving drainage of the site.

Acquisition of Freshwater/Inland Wetlands

To reduce the potential impacts to structures and property due to flooding associated with hurricanes and heavy rains, Barrington has worked to protect and acquire wetlands, which serve as a natural buffer and storage area for flood waters. The most recent major acquisitions of property containing significant wetland areas took place in the early 2000s. These sites are: the "Brickyard Wetlands," a 10-acre site between the Bayside YMCA and the Barrington Shopping Center; and the 21.5-acre Vitullo Farm on Wampanoag Trail, which contains wetland features within the center of the site.

Bridge Projects

The State is in the process of replacing the Central Bridge, which carries Massasoit Avenue across the Barrington River. The bridge, in response to concerns of the Town about boat clearance in the future with rising sea levels, was re-engineered to add two feet to the

Figure 2. Erosion Reduction and Water Quality Improvements —Town Beach

In 2014, Save the Bay working with volunteers planted beach grass within a 10-foot-wide section in front of the Town Beach parking lot. The planting area was created through the removal of pavement as part of a beach drainage improvement project. Pulling the parking area farther away from the Bay provided more room for high tides and for the addition of beach grass needed to create protective dunes.

height. Other bridge projects in Barrington are the planned replacement of the East Bay Bike Path bridges that cross the Barrington and Warren rivers. The project in 2014 was in the design phase; construction could start as early as 2016. The land to either side of both bridges is within the AE flood zone.

Location of Emergency Centers, Town Facilities

In 2000 the Town's Public Safety Building, housing both the Police and Fire Departments, was built on Federal Road, an area outside of the 100-year Flood Zone and beyond the surge inundation areas for Category 1 and 2 hurricanes. This action allowed the Town to demolish the old police station, which was at risk of flooding due to its location in the 100-year Flood Zone on the west side of the Barrington River.

All other municipal operations facilities, including Town Hall and the Department of Public Works, are located outside of the 100-year Flood Zone and surge inundation areas for Category 1 and 2 hurricanes. Although Barrington only has one hurricane-approved shelter, Primrose Hill Elementary School, the Town has signed agreements with the City of East Providence, and the Towns of Seekonk and Rehoboth, Massachusetts, that allows Barrington residents to use the hurricane shelters in those communities in the event of a Category 3 or 4 hurricane.

Posted Evacuation Routes

Barrington has evacuation route signs posted throughout town indicating the optimal route to follow in the event of a hurricane / flooding (routes are shown on Map NH-1). Extensive sections of several major routes—including County Road , Sowams Road and New Meadow Road—are within the 100-year and the 500 -year floodplain.

Issues and Opportunities

Barrington's Vulnerability to Impacts of Climate Change / Sea Level Rise

With an extensive coastline, Barrington is among the most susceptible communities in the state to impacts from projected rises in sea level—which has the potential over time to add more properties to flood zones. The long-term forecast of greater frequency and intensity of storms means buildings in low-lying areas along the shore, in particular houses within the Velocity and Coastal A zones—could be subjected to greater risk of flood and wind damage in the future.

According to the Rhode Island Coastal Resources Management Council (CRMC), potential effects include[3]:

- 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;
- 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 march vegetation and an alteration of habitat types.

Map NH-3 shows the potential inundation of areas throughout town based on one, three and

[3] Coastal Resources Management Program (as amended) - Section 145 - Climate Change and Sea Level Rise (Adopted: May 14, 2013; effective date: June 13, 2013)

five feet of sea level rise (SLR). The impacts would be felt along entire coastline in Barrington. The worst case scenario, five feet of SLR would inundate areas inland—including within Hampden Meadows and along the Wampanoag Trail, impacting existing freshwater wetlands as well as threatening pockets of residential areas.

Figure 3 on the following page provide a closer view of the potential impacts of SLR in Hundred Acre Cove area and the Brickyard Pond/Nayatt area, based on modeling by the National Oceanic and Atmospheric Administration.[4] These images show current conditions (mean high water) compared to SLR increases of two feet and five feet—the range of sea level rise projected by CRMC for Rhode Island by 2100. The higher the rise in water, the greater the impact, including the loss of marshes, blocked roadways and water reaching into developed areas.

As these maps show, long-term impacts resulting from an increase in SLR could be significant, especially if it approaches five feet. The effects, some alarming and none favorable, could include:

- Inundation of coastal marshes (Palmer River, Hundred Acre Cove, Allin's Cove, along Narragansett Bay) that serve as wildlife habitat areas as well as provide protective buffers against storm surge for inland areas;
- The complete inundation of "Crab Island" and the "Great Tongue" in 100-Acre Cove;
- The loss of Walker Farm (including a boat ramp, community gardens and a yard waste storage area) and most of Osemequin Park, should the SLR rise by 4 or more feet;
- Regular flooding at high tide of the Wampanoag Trail, County Road near the High School and Prince's Pond, and sections of New Meadow Road and Sowams Road (in particular nearest the Barrington and Palmer Rivers);
- The potential loss of Town Beach as a recreational asset should SLR exceed four feet;
- Waters from Narragansett Bay reaching into the coastal marshes at RI Country Club and portions of RISD's Tillinghast Estate;
- Inundation of residential lots near the shoreline, including those at the end of residential streets near the Palmer River and the Warren River;
- Water from Echo Lake, Brickyard Pond and Mussachuck Creek affecting adjacent neighborhoods and the RI Country Club;
- Waters extending from Bullock Cove into low-lying areas of Latham Park, and from Allin's Cove into low-lying areas in the Alfred Drown and Bay Spring neighborhoods;
- Worsening flooding of RI 114/103 on the Warren side of the Warren River Bridge;
- Water from the Barrington and Warren Rivers covering sections of Mathewson Road and Tyler Point, impacting boat facilities and other uses close to the Barrington and Warren Rivers, and a critical roadway for residents in the Mathewson Road area.

While five feet of SLR may not occur, and if it does it would not take place for decades, the Town (and the State in the case of roads such as Rte. 114/103) will need to plan for long-term capital investments to protect critical infrastructure — such as roads, storm-water facilities, sewers, and pump stations. The issue underscores the need to continue protection of open space parcels within low-lying and critical habitat areas and the rigorous enforcement of floodplain regulations.

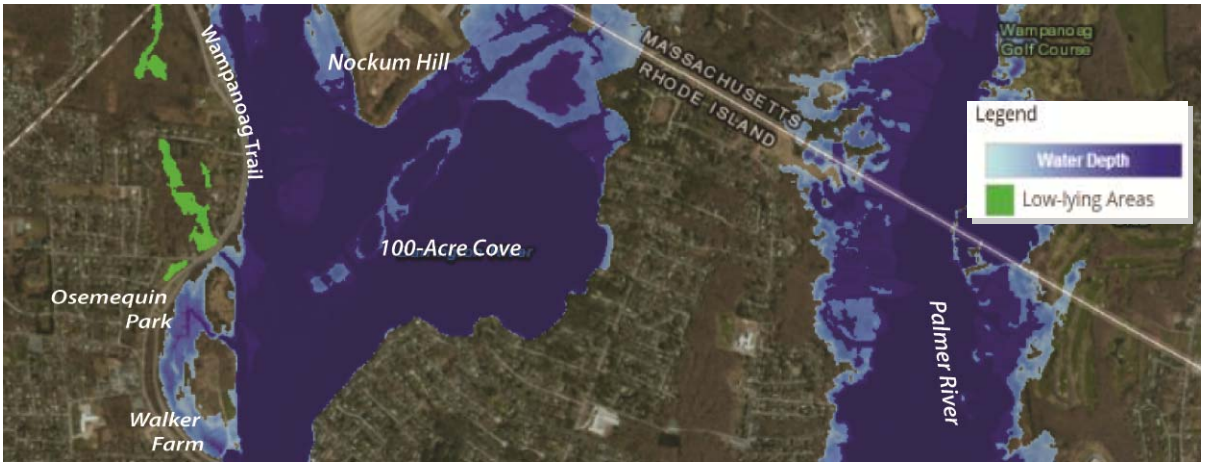
Vulnerability—Critical Assets

Vulnerability is defined as the exposure or susceptibility of the Town to the effects of the identified hazards. The vulnerability assessment process helps identify vulnerable points in the

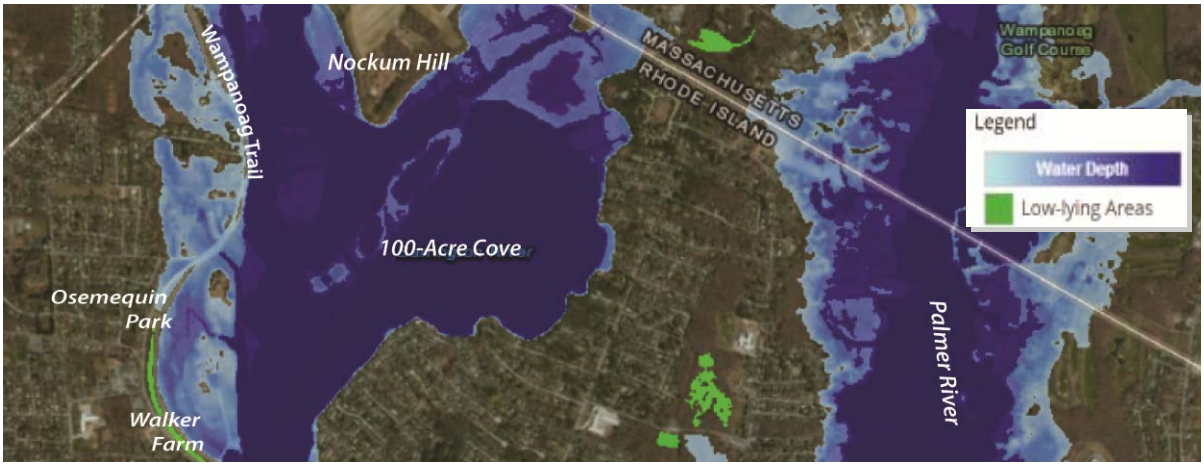
[4] http://www.csc.noaa.gov/slr/viewer/

Figure 3: Sea Level Rise/Coastal Flooding Impacts: Hundred Acre Cove/Palmer River

Current mean high water



2-foot sea level rise



5-foot sea level rise

Source: National Oceanic and Atmospheric Administration. http://www.csc.noaa.gov/slr/viewer/

Table 6. Critical Facilities Located in Areas Susceptible to Storm Surge and Flood Zones

Asset Type	Hurricane Category - Storm Surge				Flood Zone	
	1	2	3	4	AE	VE
Dams (Allin's Cove, Mussachuck Creek, Echo Lake)	2	3	3	3	2	1
Public Safety Building (Police/Fire Station/EMS)				1		
Public School (High School)		3	5	5	1	
Private School		1	2	3		
State Facility (East Bay Center)			1	1		
Post Office			1	1		
Elderly Housing / Assisted Living		2	2	2		
Marina	3	4	4	4	4	
Park & Ride Lots	2	2	2	2	2	

Source: Town Planning Department, FIRM Maps (2014)

community's infrastructure and population and examines structures, including residential and commercial structures; infrastructure, including bridges, roads, and utilities; natural resources and areas subject to environmental vulnerability, such as beaches prone to erosion; and populations, such as children and the elderly.

Table 6 provides a summary of critical assets susceptible to storm surge and flooding. (See also Appendix III for a comprehensive list of critical assets such as transportation systems, emergency centers, utility infrastructure, special population centers such as nursing homes and schools, and natural resources, such as beaches and coastal parks.)

Due to its coastal location and the potential for the occurrence of various seasonal storms, Barrington's critical assets are more vulnerable to flooding than any other hazard. Hurricane storm surge has perhaps the greatest potential to impact the Town, as surge from even a low level hurricane could flood large sections of Town in a short period of time.

Fast moving, widespread flooding has the ability to halt transportation, damage residential and commercial property, and impair important infrastructure such as sewer pump stations. If roads were to become impassable, Barrington's population, including Special Needs populations, could also experience difficulty evacuating and/or conducting daily activities until flood waters recede. The Town's Public Safety Complex could experience flooding from high caliber hurricanes, but other emergency centers/operating facilities such as Town Hall and the Department of Public Works are located well beyond the storm surge area identified for any hurricane.

Barrington's critical assets are also at risk from flooding due to other natural hazards besides hurricanes. Winter storms and heavy rains can flood assets located within the 100-year Flood Zone and the Velocity Zone, schools (the high school and three private schools), coastal homes, roads, park and ride lots, and utility infrastructure. The East Bay Center, a State-owned facility on County Road, is in the AE zone, as are the Atria Bay Spring assisted living facility and Barrington Cove Apartments on Bay Spring Avenue. Both park and ride lots serving the bus routes on RI 114 are in the AE zone and susceptible to storm surge during the weakest of hurricanes.

Strong winds and winter storms can also present a major obstacle to transportation and impair road functions, with the potential to damage structures, impair electric utilities, and block roads and evacuation routes.

Above-ground utilities like transmission and distribution lines can be impaired by strong winds and heavy snow and ice associated with winter storms. Power outages can have secondary effects on the Town's ability to manage emergencies and keep residents safe and warm. Winter storms also regularly contribute to coastal erosion, which then in turn contributes to flooding by reducing the buffer of land between coastal waters and Barrington's developed areas.

Although Barrington faces impacts from other potential natural hazards, including earthquakes, wildfire, and hailstorms, the risk from these hazards is currently quite low, and mitigation efforts are better spent on addressing higher risk flood and wind-related hazards.

Mitigation Cost: Houses in Flood Zones

Flood risk remains a significant issue for residents throughout town. As cited previously, Barrington has more than 1,000 structures within the AE and VE zones—almost all privately owned homes. Elevation of a structure above the base flood elevation—for example on piles (velocity zone) or on a new, higher foundation with flood vents—is one mitigation measure available to property owners.

Elevation projects, however, are a financial burden for most people, typically costing more than $100,000. Property owners who are unable to elevate their home are not only at risk of incurring flood damage to their property, they also are facing escalating flood insurance premiums.

On occasion, FEMA provides opportunities to homeowners to apply for financial assistance to offset some of the cost of an elevation project. One example is the Hazard Mitigation Grant program, which, when available, can provide assistance to property owners in municipalities with an approved Hazard Mitigation Plan.

Limited Adaptation Opportunities

The changing shoreline has already created erosion, flooding and water quality problems that Barrington will need to confront in the short-term as well as long-term. The potential impacts are widespread, with more than 1,000 structures in flood zones. And with the community approaching build-out, there are limited options to make changes to the built environment that would significantly reduce the risk. However, a starting point is Save the Bay's Coastal Adaptation Project, which included an assessment of Barrington.

Save the Bay has worked with the Town on the retrofit of the Barrington Town Beach parking lot and Water Way, and the installation of sand -filled coir envelopes to protect a sewer line at Byway Road.

Additional projects (with owner noted) recommended by Save the Bay include:

- Latham Park (Town) — Allow low-lying, flood-prone area within the lower-middle portion of the park to become salt marsh over time; enhance buffer; reconstruct revetment to protect Shore Drive. (As mentioned previously, the Town has completed reconstruction of the parking lot, which was shifted inland with a new buffer strip near the water. The northerly portion of the existing revetment was also repaired.)
- Haines Park, Bullock Cove (State) — Remove a section of pavement in the parking lot adjacent to shoreline (just north of Cove Haven Marina) to provide room for stormwater infiltration.
- Mathewson Road (Town) – Relocate utility poles that now are underwater at high tide

for most of the length of this road (see **Figure 4**). The road will require protection as well, as the street is vulnerable to sea level rise and flooding.

- The former "Vitullo Farm" (Barrington Community Garden), Wampanoag Trail (Town). The site contains marsh to the south of a gravel parking lot and driveway off the Trail (see **Figure 5**, next page). Reconfiguration of the parking and driveway could allow room for the expansion of a wetland to the north and west.
- Barrington Town Beach (Town) – Remove section of parking to allow area for beach migration and filter stormwater runoff from parking area and side roads (This project has been completed, though there may be an opportunity for additional pavement removal and installation of stormwater measures within adjacent Town rights of way such as at the end of Lorraine Street).
- Woodbine Avenue (Town) — East side of Bullock Cove. There is an opportunity to carve back pavement, creating an infiltration area and move an outlet more inland.
- Prince's Pond (Town) – Install larger culvert that can accommodate larger tidal flows and that has a natural bottom.
- Sowams Road (State) – Stabilize bank to protect road where it is in close proximity to the Palmer River (just north of County Road).
- Walker Farm (Town) – Allow salt marsh to become established north of boat ramp; stop mowing marsh; relocate benches inland to allow for erosion.
- Arvin Avenue (Town) – Create dead end from either side of Arvin and remove section of road to allow area for marsh retreat.
- Bourne Lane (Town/Private) — Potential site for stormwater infiltration along edge of road prior to entering marsh

Figure 4. Adaptation Opportunity: Mathewson Road—Utilities

Utility poles along sections of Mathewson Road are under water at high tide. Adaptation activities recommended by Save the Bay include relocation of the poles and additional protection of Mathewson Road. (Credit: Save the Bay)

Figure 5. Adaptation Opportunity: "Vitullo Farm" - Wetland Expansion

This photograph depicts conditions at a "moon tide" at the former "Vittulo Farm" off Wampanoag Trail (now Town-owned open space where a community garden has been established). Plans for improving parking at the site call for providing additional space to allow for expansion of a wetland to the north and west. (Credit: Save the Bay)

- Belvedere Avenue (Town) – Remove pavement at end of road; infiltrate stormwater and allow marsh an area to retreat inland.
- Tillinghast Salt Marsh (RISD) — Create new creeks to allow impounded water to drain off marsh area; plant beach grass to encourage dune establishment at southern end of footpath. (Project in progress.)
- Juniper Street and Virginia Road (Town) — Remove pavement at end of road; infiltrate stormwater. (This is to be completed as part of abatement related to the Central Bridge replacement project.)

Floodplain Management / Community Rating System

An effective floodplain management program is needed if Barrington hopes to reduce future flood damage. Such a program that can also produce financial benefits to property owners is FEMA's Community Rating System (CRS). CRS, established through the National Flood Insurance Program, provides incentives in the form of discounts on flood insurance premiums ranging from 5 to 45 percent. The program rewards communities that undertake floodplain management practices exceeding minimum standards.

The CRS Coordinator's Manual provides a range of potential public information and floodplain management activities a community could implement to achieve a score needed to qualify for premium reductions (see **Figure 6**, next page). A minimum score of 500 would result in a CRS rating of "9" and a 5 percent flood insurance premium reduction. The highest rating—achieved by only four communities in the United States—is a score of "1", providing a 45 percent premium discount. (The highest possible rating in Rhode Island is a Class 6.)

An issue for the Town relates to personnel who would implement floodplain activities re-

quired to effectively reduce risk and improve the CRS program score. Options for administering a CRS program include hiring a qualified consultant or designating someone on staff to be trained as a certified floodplain manager.

Drought Preparedness

Drought is a relatively low risk hazard in Barrington. Most of Barrington has access to public water from the Bristol County Water Authority, with water from the Scituate Reservoir delivered through the cross-bay pipeline.

With the majority of water users in Barrington reliant on public water, the community's vulnerability to drought is directly related to the availability of water provided by the Bristol County Water Authority—either from the Scituate Reservoir or from a secondary source. (Water supply is discussed in more detail in the Community Services and Facilities element). Bristol County Water can address drought impacts through enactment of water restrictions when necessary.

The area potentially most vulnerable to impacts of drought is the George Street area, which is 100 percent reliant on well water. There are just 11 houses in the area currently; however, Four-Town Farm is a heavy user of water, requiring it for irrigation on approximately 60 acres of farmland in town.

Mitigation of drought impact in the George Street area and the few other areas in town that rely on well water will require additional public outreach about the need for water conservation, focusing on the small number of affected property owners.

Data Availability

A data gap exists within the parcel and the building data available from the Town's GIS database. Currently nearly 400 parcels in the parcel dataset are lacking use classification information (i.e., residential property, commercial property, etc.).

Figure 6: Community Ratings System—Example Activities

Examples of activities that result in a higher CRS score include:

Public Information

- Maintain elevation certificates for new construction in the floodplain (required) (Barrington already requires this)
- Require real estate agents to advise potential purchasers of flood-prone property of potential flood hazard.
- Provide technical advice to interested property owners and lessees on how to protect their property from flooding.

Mapping and Regulations

- Complete regulatory administrative tasks, including staff training as Certified Floodplain Managers.
- Prohibit new buildings on fill or compensatory storage where filling is allowed.
- Reflect in future conditions mapping sea level rise and climate change
- Add building elevation data and natural floodplain functions to GIS mapping.
- Implement low-impact development regulations that reduce runoff "to the maximum extent possible."

Flood Damage Reduction

- Relocate structures out of the floodplain. Extra credit is available for removing "critical facilities", and for removing buildings from the VE or Coastal AE zone.
- Protect buildings through flood-proofing
- Complete a flood hazard mitigation plan in accordance with FEMA requirements
- Conduct periodic inspections and maintenance of stormwater system to maintain flood carrying capacity

Flood Preparedness

- Timely identification of impending flood threats, dissemination of warnings to floodplain occupants, and coordination of flood response
- Provide a flood response plan with preparations for possible dam failure.

Source: RI Emergency Management Agency

This information may be critical during an emergency. An additional data gap exists in the building dataset, as it does not contain any actual information about the primary use of the building (commercial, residential, school, etc.).

Although this information can be obtained in a roundabout method through the Town's parcel data on which a building sits, adding a basic description of the primary use of the building to the building dataset would streamline the vulnerability assessment in future versions of the report.

Streamlining the GIS data for parcels and buildings will improve the Town's ability to prepare for, respond to, and recover from natural disasters. The Town's GIS mapping software also provides an opportunity to expand on its capabilities to integrate into natural hazard planning and response, such as utilization of software specifically designed for assessment of vulnerabilities and mitigation of threats. This could improve the Town's planning, operations, and public information efforts related to hazards.

Public Awareness

Information about natural hazards—such as storm surge maps, evacuation routes and floodplain maps—are readily available through the Town's website. A more concerted effort is needed, however, to reach more people about potential long-term risk (such as owning structures in flood-prone areas) and immediate risk (hurricanes, blizzards, etc.). The role of public outreach on natural hazards could fall to a Town floodplain manager.

A communications strategy would help disseminate information, such as:

- Announcements of the availability of grant opportunities, such as Hazard Mitigation Grants, that potentially benefit individual property owners;
- Educational/technical assistance events on protecting property from flood damage;
- Invitations for public input on updates to the Town's Hazard Mitigation Plan.

Goals, Objectives, Policies and Actions

Goal NH-1: Reduce current and future risk of natural hazards and sea level rise to the built environment.

Objective NH-1.1: By 2018 complete a town-wide assessment of the potential impacts to structures and infrastructure resulting from projected sea-level rise.

Policy NH-1.1.1: Plan for effects of projected sea level rise and flooding in the site selection and planning of parks, buildings and other public projects.

Policy NH-1.1.2: Reduce impact of development within the floodplain and other vulnerable areas.

Actions

A. Complete an assessment of potential impacts, including physical and financial, of projected sea-level rise on publicly and privately owned buildings and sites, roads, storm-water systems, sewer systems and other utilities.
B. Include in the six-year capital improvement program critical projects required to mitigate threats to infrastructure and properties.
C. Consider requiring smaller lot sizes, such as through a cluster subdivision design, to ensure development is outside the existing or projected floodplain, reducing potential impacts of rising sea levels.
D. Provide support for property owners to help take advantage of funding opportunities—such as FEMA Hazard Mitigation Grants and Emergency Management Performance and Homeland Security

Grants—that assist with covering the cost of mitigating risk such as elevating or retrofitting existing structures located in designated flood zones, or acquisition and relocation of structures outside high risk zones.

E. Publish illustrated design guidelines to provide ideas for designing building elevations that are compatible with the surrounding neighborhood. Include best practices to mitigate impacts of elevations that require relief from the height limit.

F. Adopt low-impact development standards to reduce the amount of impervious coverage, such as reduced street widths and a maximum impervious lot coverage percentage.

G. Provide measures to improve stormwater retention in the planning and design of park improvements and construction of schools and other new public buildings.

H. Evaluate restrictions on changes to grades around buildings within 100-year flood zone.

I. Improve Geographic Information Systems (GIS) capabilities to support assessment and planning activities.

Goal NH-2: Preserve and enhance the capacity of the natural environment to improve Barrington's resilience against impacts of natural hazards.

Policy NH-2.1.1: Identify and protect critical open space areas that are vulnerable to natural hazards and sea level rise.

Policy NH-2.1.2: Plan for and implement projects that allow natural systems to adapt over time to changes in sea level rise and the climate.

Actions

A. Prioritize and implement coastal adaptation projects, working with Save the Bay, the State and other stakeholders, to reduce flood risk and the potential damage to vulnerable infrastructure, allow the expansion of wetlands and other purposes.

See the Implementation element for information on implementation schedule, priorities, estimated costs, responsibilities and action types.

B. Implement a tree management program to reduce risk to property due to winds, heavy snow/ice or other natural hazard impacts, to include:
   - Identification of tree species that will be most resilient to climate change and use these species in public projects.
   - Requiring resilient tree species in new subdivisions and land development projects.

C. Complete hydrology study[5] that includes: inventory of ponds on private and public property; assessment of streams and condition of and impacts of dams; prioritization of projects needed to maintain/improve water flow.

D. Develop plan to allow restoration of natural areas at Walker Farm.

E. Work with the local land trust and other stakeholders to identify and protect from development:[6]
   - Low-lying land vulnerable to impacts from flooding and sea level rise
   - Areas adjacent to coastal wetlands susceptible increased inundation due to sea level rise.

Goal NH-3: Reduce flood risk and the cost of flood insurance within Barrington.

Objective NH-3.2: Achieve a Community Rating System score of "7" or better by 2020 (with "1" being the top score).

[5] In conjunction with completion of wetlands study (see Natural & Cultural Resources Objective NCR-1.2, Action C

[6] As part of a Town open space protection program—see Goal NCR-1 in the Natural & Cultural Resources element

Policy NH-3.2.1: Participate in the Community Rating System and provide resources necessary to run an effective program that reduces future risk and results in a CRS score of 7 or better.

Policy NH-3.2.2: Maintain a FEMA-approved Hazard Mitigation Plan that is based on the latest data and proposes strategies on natural hazards and climate change.

Actions

A. Complete steps required to enroll in the National Flood Insurance Program Community Rating System, with a minimum starting CRS score of "9".
B. Engage a consultant or provide staff training for a certified floodplain manager to coordinate implementation of CRS activities and implementation of the Town's Hazard Mitigation Plan.[7]
C. Complete the required Hazard Mitigation Plan[7] five-year update that addresses effects of climate change and includes activities that would achieve a CRS goal of "7" by 2020. Update the plan as necessary to address impacts of new significant natural hazard events such as severe flooding, wind damage and storm surge.
D. Establish an administrative team to meet quarterly to review progress on implementation of the Hazard Mitigation Plan and activities resulting in CRS credit.

Goal NH-4: Improve the community's awareness of threats to minimize risk to the public due to natural hazards.

Policy NH-4.1.1: Inform the public on the concept of community resilience and the risk of impacts from natural hazards, with an emphasis on stream and coastal flooding, including storm surge, and winter storms.

Actions

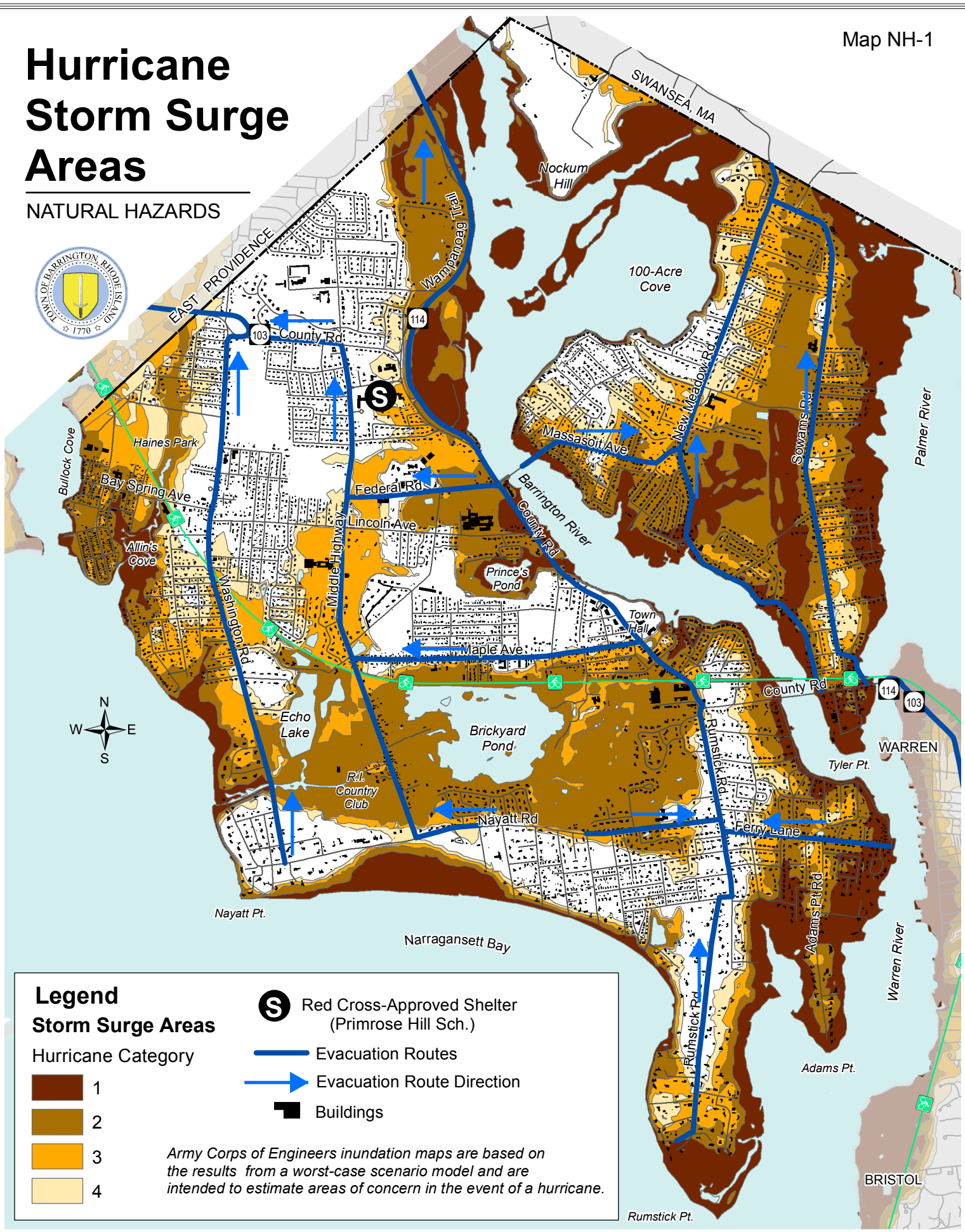
A. Use informational signs at areas of historic flooding showing the 1938 surge elevations along the bay and rivers and update as necessary based on March 2010 flooding. These signs could be as simple as a painted blue ring around a telephone pole or a plaque indicating where floodwaters have reached previously. It is especially important to include inland areas where the risk is less obvious.
B. Conduct community outreach, including public forums and publication/posting of information at Town facilities and the website, on natural hazard mitigation initiatives, preparedness and response. Program should include:
   - Preparedness for emergency situations, especially during hurricane season immediately before an event.
   - Threats of natural hazards, including impacts of flooding and long-term sea level rise projections
   - Opportunities property owners can take to mitigate future impacts; include "how-to" sessions on mitigation activities including house elevation projects.
   - Publicize spaces (shelters, "warming centers," etc.) available to the public in times of power outages, loss of heat and other secondary impacts resulting from natural hazards.
   - State and FEMA brochures and other information..
   - Water restrictions, as applicable, during drought conditions. Consider direct mailing of information to residents / property owners who rely on well water.
C. Establish a process to directly contact special populations such as those who are particularly vulnerable, due to location or age and infirmity, to ensure their understanding of procedures immediately before and after an event.

[7] Current Hazard Mitigation Plan expires in November 2015.

Hurricane Storm Surge Areas

NATURAL HAZARDS

Map NH-1



Legend

Storm Surge Areas

Hurricane Category

- 1
- 2
- 3
- 4

Red Cross-Approved Shelter (Primrose Hill Sch.)

Evacuation Routes

Evacuation Route Direction

Buildings

Army Corps of Engineers inundation maps are based on the results from a worst-case scenario model and are intended to estimate areas of concern in the event of a hurricane.

0 4,000 8,000 Feet

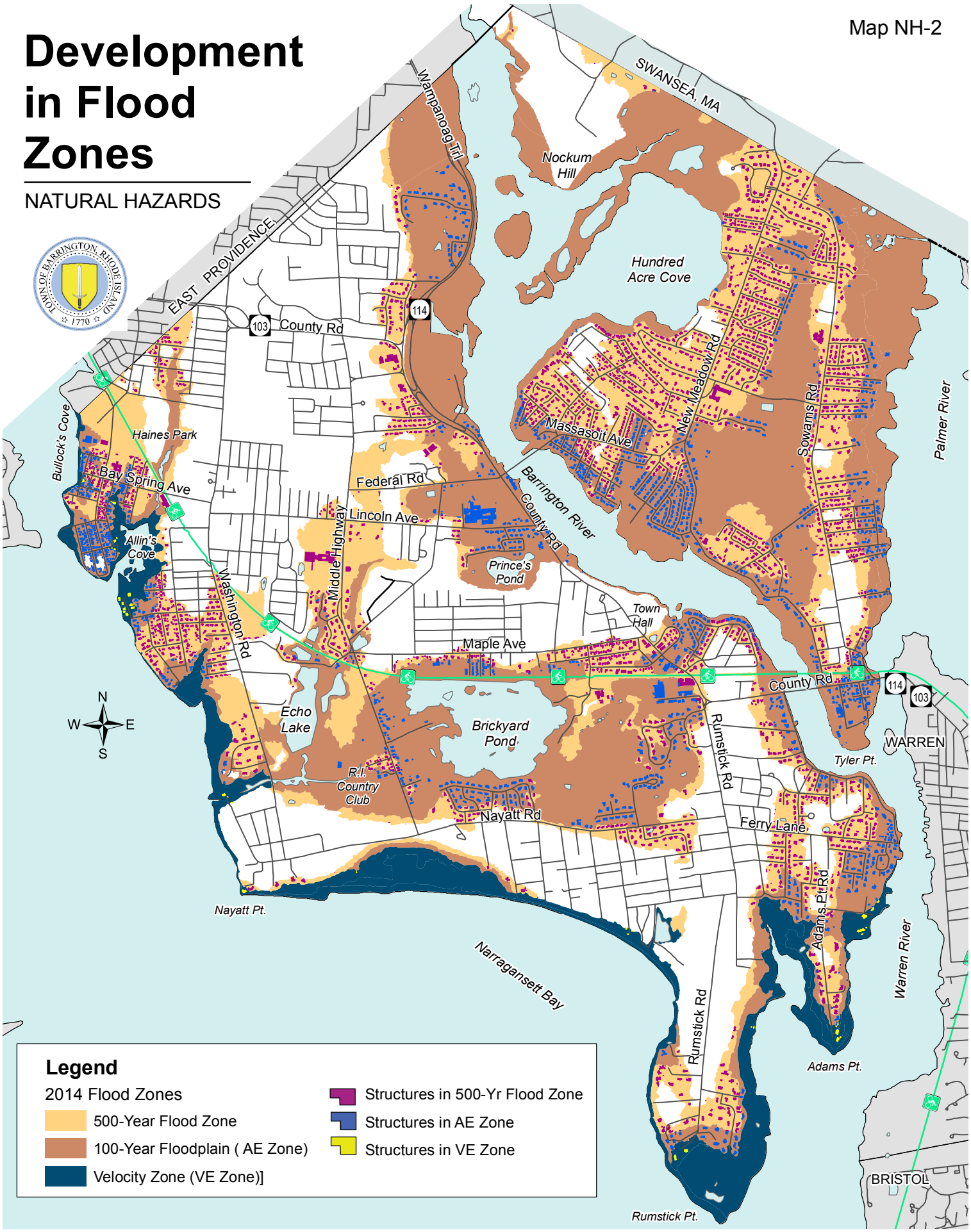
SOURCE: Town GIS, RIGIS data

Comprehensive Community Plan - 2015 Update / Town of Barrington

Development in Flood Zones

NATURAL HAZARDS

Map NH-2



0 4,000 8,000 Feet

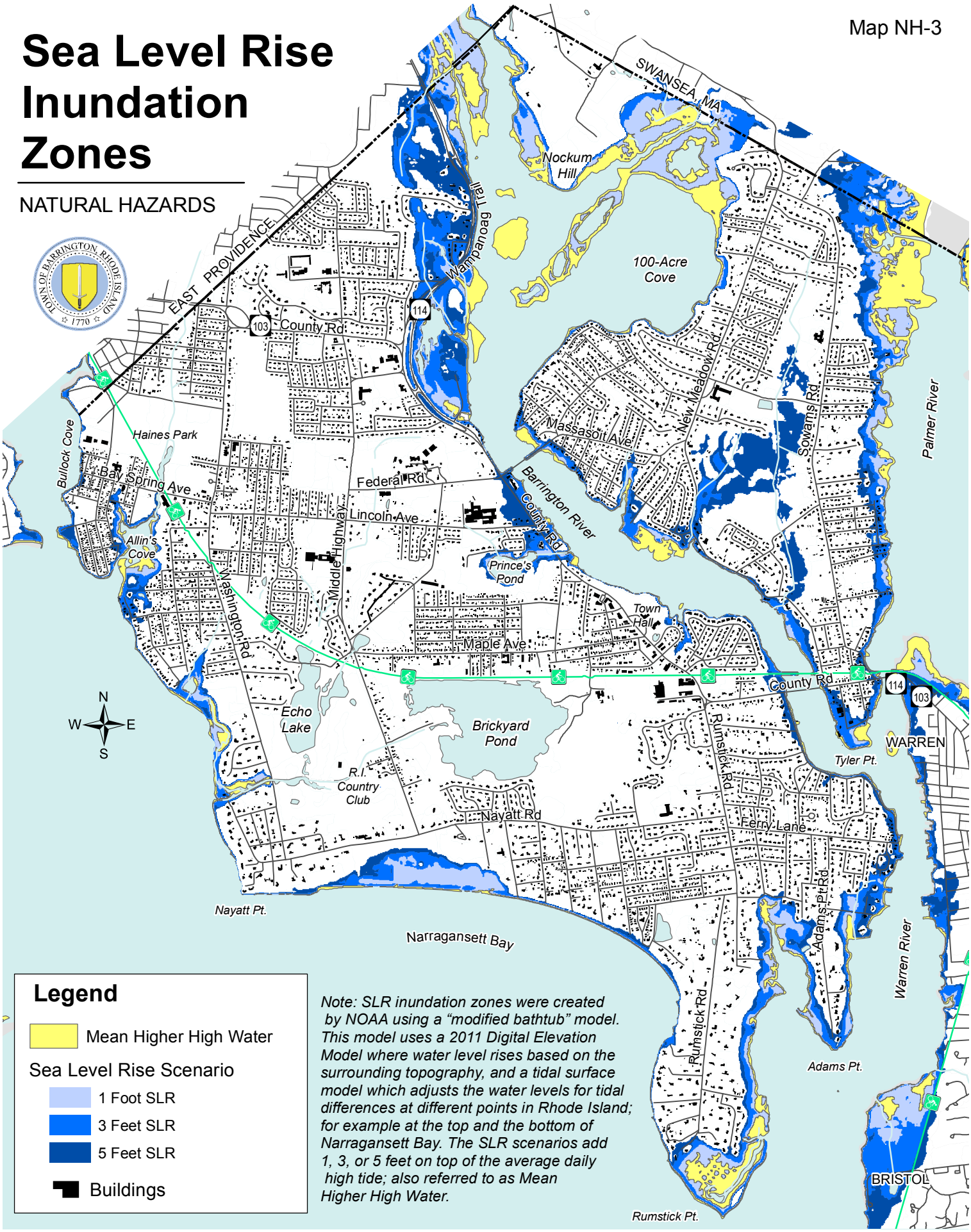
SOURCE: Town GIS, RIGIS data

Comprehensive Community Plan - 2015 Update / Town of Barrington

Sea Level Rise Inundation Zones

NATURAL HAZARDS

Map NH-3



Legend

- Mean Higher High Water
- Sea Level Rise Scenario
  - 1 Foot SLR
  - 3 Feet SLR
  - 5 Feet SLR
- Buildings

Note: SLR inundation zones were created by NOAA using a "modified bathtub" model. This model uses a 2011 Digital Elevation Model where water level rises based on the surrounding topography, and a tidal surface model which adjusts the water levels for tidal differences at different points in Rhode Island; for example at the top and the bottom of Narragansett Bay. The SLR scenarios add 1, 3, or 5 feet on top of the average daily high tide; also referred to as Mean Higher High Water.

0 4,000 8,000 Feet

SOURCE: Town GIS, RIGIS data

Comprehensive Community Plan - 2015 Update / Town of Barrington

9 LAND USE

Overview

As Barrington approaches build-out, with few parcels that can support new growth, the Town is facing critical issues integrally related to land use planning. These include:

- Providing housing options for an aging population and adding to the affordable housing stock.
- Mitigating impacts of rising sea levels in areas near Barrington's extensive shoreline and low-lying inland areas.
- Growing the non-residential tax base.
- Preserving community character as pressure mounts to redevelop lots in established neighborhoods and build in areas without adequate infrastructure.
- Providing adequate municipal, school and recreational facilities.
- Protecting environmentally sensitive areas.
- Retaining farming as a viable use in town.

As the list above suggests, the use of land is inherently tied to the other elements of the Comprehensive Community Plan, and the goals described for each of these elements is naturally a reflection of the goals and priorities of the community.

Existing Conditions

Current Land Use

Existing land use in Barrington is depicted in **Map LU-1** and **Table 1** (next page) both of which are based on 2011 land use data as mapped by RIGIS. Residential is the dominant land use in Barrington, comprising more than half of the total land area within the town limits. Commercial acreage (2.2 percent), mostly concentrated in the County Road commercial district, represents a much smaller share of the Town's overall land use pattern.

Industrial sites are non-existent. Since the mid-1990s, all of the remaining land that had been

used historically for industrial purposes has been converted to other uses. This is due to the redevelopment of two industrial sites on Bay Spring Avenue into senior housing developments in the mid– to late-1990s: the former RI Lace Works site (now Bay Spring Village Assisted Living) and the former Pilling Chain Mill (now Barrington Cove Apartments). Both sites were rezoned to Elderly Housing.

Institutional uses (2.8 percent of total land area) include public schools and municipal facilities, and religious institutions. The largest institutional landholders include St. Andrews School and the Town. The buildings at the former Zion Bible Institute campus at Middle Highway and Primrose Hill Road remain vacant; however, the owner in 2014 presented conceptual plans to redevelop the site as a senior residential community.

Although it is perceived to be nearly completely developed, the town has a large amount of land utilized as open space, including active recreation and conservation areas. For example, the Town has more than 200 acres of developed recreation land, including the golf course at the RI Country Club. The category also includes Town-owned parks and athletic/play fields associated with educational institutions.

A significant amount of acreage consists of permanently protected conservation parcels—including environmentally sensitive areas and critical wildlife habitat. Barrington has 645 acres of open space on parcels protected from future development; approximately 510 acres of open space are unprotected.[1] (this total includes forested wetlands, but not approximately 217 acres of coastal and other types of wetland listed separately in Table 1).

Table 1: Barrington Land Use

Land Use	Acres	% of Total
Commercial/Mixed Use	119.31	2.2%
Institutional	148.28	2.8%
Residential - Total	2,843.71	52.9%
Low Density Residential (>2 acre lots)	21.98	0.4%
Medium Low Density Residential (1 to 2 acre lots)	20.93	0.4%
Medium Density Residential (1 to 1/4 acre lots)	1,610.73	30.0%
Medium High Density Residential (1/4 to 1/8 acre lots)	1,122.96	20.9%
High Density Residential (<1/8 acre lots)	67.12	1.2%
Transportation	31.27	0.6%
Waste Disposal	13.36	0.2%
Developed Recreation	217.11	4.0%
Cemeteries	19.16	0.4%
Conservation/Open Space	644.61	12.0%
Undeveloped (unprotected)	509.04	9.5%
Agriculture	199.34	3.7%
Wetland*	440.90	8.2%
Water	190.05	3.5%
Total Acreage	5,376.15	100.0%

*Wetland: The 2011 RIGIS land use data identified wetland areas as "visibly grassy or vegetated areas often near or adjacent to open water bodies or streams and or visibly scoured areas that may be associated with tidal flow or flooding." Forested wetlands are treated as forest types in the data, are categorized on Map LU-1 and in this table as either *Conservation/Open Space* or *Undeveloped (unprotected)*.

Source: RIGIS - 2011 Land Use Data

Wetland areas identified in the State's land use coverage total 440 acres—which, as noted above, excludes forested wetlands and other types that are not near water bodies or streams or in areas susceptible to tidal flow or flooding. (For a complete inventory of wetland types, all of which total 955 acres, see Table 1 in the Natural and Cultural Resources element.)

The final category, water bodies, constitutes all the open water within the Town's land area, including those within the low-lying marshland around Hundred Acre Cove. The largest interior water body in Barrington is Brickyard Pond which is about 106 acres, more than half of the total acreage for all water bodies. Brickyard Pond is followed in size by Echo Lake (25 acres), and Prince's Pond (9 acres).

Residential Density

Shown on the land use map is residential use depicted for 2011 at various density levels. These categories are:

- *High Density Residential* (less than 1/8-acre lots) High density areas are primarily in western Barrington with some areas located near Barrington Beach. Overall, just 1.2 percent of land area in Barrington falls in this category.
- *Medium High Density Residential* (1/8-acre to 1/4-acre lots). Almost 21 percent of the town falls within this residential density range. Examples: Roberta Plat and the Maple Avenue area.
- *Medium Density Residential* (1 to 4 houses per acre). This density is consistent with the lot area requirements of the three single-family housing zones—Residence 10 zone (10,000 -square-foot minimum lot size), Residence 25 (25,000-square-foot minimum) and the Residence-40 zone (40,000-square-foot minimum). About 30 percent of land in town is categorized "medium density" residential. Much of the residential land in Hampden Meadows, Nayatt Point and Rumstick Point is in this category.
- *Medium Low Density Residential* (1 house per 1 to 2 acres) and *Low Density Residential* (>2 acre lots). Areas include residential land between Adams Point Road and the Warren River (zoned R25). Just 0.8 percent of all land falls within these categories.

These numbers suggest the vast majority of existing residential areas in Barrington are within the medium-density to medium-high density range.

Zoning Districts

Map LU-2 depicts the town's zoning districts. The zoning ordinance has four residential zones: R-40-Conservation Development, R-40, R-25, and R-10, with single-family cluster developments allowed within the R-40 and R-25 Districts. (Currently there are no R-40 cluster developments.) Barrington also has a Business (B), Neighborhood Business (NB), Waterfront Business (WB), Elderly Housing (EH), Limited Manufacturing (LM), Government & Institutional (O&I), Open Space-Active (OS-A), Open Space-Passive (OS-P), Conservation (C) and Wildlife Refuge (WR) Districts.

The bulk of the land in Barrington is zoned for single-family residential (approximately 3,366 acres) with the Residence 25 District encompassing the most land area among the three residential districts (see **Table 2**, next page). Following residential, the largest zoning categories in terms of land area are those where residential and commercial uses are prohibited: Open Space-Active, Open Space-Passive, Conservation and Wildlife Refuge Districts.

For the remaining designations there are only approximately 136 acres of land zoned for business, 27.6 acres zoned for waterfront busi-

[1] These totals include forested wetlands (categorized as forest in the State's land use data). For more information see the wetland note in Table 1 on the previous page.

ness and just 4.8 acres zoned for manufacturing. The Recreation and Education zoning district, which encompasses a range of uses including public and private schools and golf courses, covers another large area of town, approximately 428 acres, with the RI Country Club the largest contiguous RE-zoned area.

Barrington's predominant land use, single-family residential lots, is reflective of the zoning that has evolved over time. Zoning requires at least 10,000, 25,000 or 40,000 square feet per house lot. With the exception of the two Elderly Housing districts, multifamily housing currently is not permitted in any zone except in the form of mixed-use development in the Business and Neighborhood Business zones.

Nonconforming Lots

Historically, Barrington allowed for a wide range of lot sizes, a much different development pattern than currently permitted. For example, the 1926 Zoning Map, the first for Bar-

Table 2: Zoning Districts—2014

Zoning District, with Definition	Acreage
Business. (B) Areas forming the basic pattern of retail and service business serving the community, including mixed-use commercial structures.	57.9
Neighborhood Business (NB). Areas where business uses are permitted and are in character and scale with proximate residential uses. Intended for less intensive commercial and retail activities.	78.3
Waterfront Business (WB). Areas for business enterprises requiring or appropriate for waterfront or shoreline locations.	27.6
Limited Manufacturing (LM). Areas suitable for future development of manufacturing uses.	4.8
Government & Institutional (GI). Sites that contain governmental buildings of the Town, State and Federal government or their agencies.	29.3
Elderly Housing. Areas for multi-unit housing for persons 62 years or older, or for persons with disabilities.	8.8
Residence 10 (R-10). Areas suitable for development at approximately four dwelling units per acre.	963.2
Residence 25 (R-25). Areas suitable for residential density of approximately two dwelling units per acre.	1,869.0
Residence 25C and R-40C. R-40 and R-25 Districts that have been rezoned for clustered housing.	28.3
Residence 40 (R-40). Areas suitable for residential use at one dwelling unit per acre.	430.8
Residence 40-Conservation Development (R-40CD). R-40 areas rezoned to permit construction of projects based on the principles of conservation development.	75.0
Recreation & Education (RE). Areas used for public and private educational institutions and active public and private recreational activities.	428.2
Open Space-Active (OS-A). Areas maintained for active public use, including all permitted types of active outdoor recreation.	193.5
Open Space-Passive (OS-P). Publicly owned open space maintained for non-intensive recreational uses and activities, or privately owned open space not suited for further development.	366.3
Conservation (C). Freshwater and coastal wetland areas, and other environmentally sensitive land or natural areas which are in public ownership, or owned by a private organization for the purpose of maintaining it in its natural condition and/or protecting a plant or animal habitat area.	637.0
Wildlife Refuge (WR). Land preserved and managed for purpose of protecting important animal species habitat areas; it includes both Town-owned land and land held by private organizations.	209.6
Total	**5,407.6**

Source: Town GIS data, Zoning Ordinance

rington, included zones requiring as little as 2,000 square feet per lot, and allowing for multi-family (2,000 square feet of lot area per family) and "double-cottages."

The presence of a wide variety of lot sizes across Barrington today reflects the zones established on previously adopted zoning maps. For example, many, if not most, of the lots in Bay Spring are smaller than 10,000 square feet; however, the existing R-10 zone in place in Bay Spring requires that amount of land per lot. As a result, many of the houses are on non-conforming lots due to a lack of minimum land area, and the fact that setbacks are more stringent today than in the past means that even small additions to a house can require applying for dimensional variances from the Zoning Board of Review.

Town-wide, undersized lots are scattered throughout the Residence 10 and Residence 25 zones. As **Maps LU-3** through **LU-5** show, undersized lots tend to be concentrated not only in the Bay Spring area, but also the Maple Avenue area (R10 zone) and Ferry Lane (R25). There are relatively few undersized lots in the R40 zone.

Development Trends

Housing

Building permit data (discussed in greater detail in the Housing & Neighborhoods element) reflect periods of strength and weakness in the real estate market. For example, the town hit peaks of more than 80 units per year in 1987 and 1988 before tapering off to about 20 units per year in the mid-1990s on the heels of a recession. Until the 2000s, there was almost no multifamily development in Barrington in the 1980s and 1990s. One exception was the 60-unit Barrington Cove Apartments on Bay Spring Avenue built in 1996. In addition, Atria Bay Spring Assisted Living, built in 1999, added 126 assisted living units.

In the mid-2000s, developers began taking advantage of the Town's Zoning Ordinance amendments adopted in 2000 allowing for mixed-use development, with apartments above first-floor commercial space. The largest multifamily development in recent years, Sweetbriar on Washington Road, added 46 two-family and townhouse-style units—approved through the comprehensive permit process. Another 10 duplex-style units, built in 2008 on a lot adjacent to Sweetbriar in the Neighborhood Business zone, also were approved under the Comprehensive Permit process.

While there has been some multifamily construction in Barrington, since 1980 the preponderance of new housing has been in the form of single-family detached houses. A total of 1,122 housing units were built from 1980 to 2013, of which 988 (88 percent) were single-family houses. The largest single-family development in recent years is the Atlantic Crossing subdivision on Northwest Passage off Upland Way, consisting of 18 single family lots approved in 2001. Two 10-lot subdivisions have received Planning Board approvals—next to Lavin's Marina (under construction) and the Bluemead Farm subdivision on Chachapacassett Road (final plan approval pending.)

The Town could add 200 to 300 additional units in the next few years, with two projects before the Planning Board. One is the 40-unit Palmer Pointe affordable housing multifamily development on Sowams Road, which was granted master plan approval in 2013. In 2014, the Board began reviewing a conceptual master plan for a senior residential development at the former Zion Bible Institute campus—which would add more than 200 independent living units, in multi-family buildings and in senior "cottages," as well as assisted living and memory care units.

Non-Residential

The Economic Development section discusses commercial development in greater detail. The largest commercial developments in recent years have involved redevelopment and up-

grades of existing properties. New standalone commercial buildings are rare. Since 2010, there has been just two such structures—a bank built on a former car dealership parking lot and a building for AAA with space for a second commercial tenant. Both of these buildings are on County Road.

Off County Road, mixed-use development is more common. For example, a developer built two mixed-use buildings in 2013 on Wood Avenue—a street parallel to County Road that is slated for streetscape improvements in 2015. Other mixed-use projects were built in the mid-2000s, including two buildings with 12 commercial spaces and 12 apartments on Bay Spring Avenue, and a building on Maple Avenue with three commercial and three residential units.

Recent expansions of institutional uses have included the Bayside YMCA (now 36,000 square feet), and school buildings at St. Andrew's and Barrington Christian Academy. The School Department's plans for a new Middle School call for the school to remain at its current location on Middle Highway. It was determined that a suitable alternative site is not available in town.

Demographic Trends

Included within this section are a summary of the 2010 Census for Barrington, and a review of projections done by the State Department of Administration to the year 2040. The Housing Element includes a detailed discussion of these data as well.

2010 Census

The 2010 census revealed Barrington had lost population, which decreased by 509 people compared to 2000. The town experienced the drop in numbers despite an increase of 187 housing units. Factors in the population loss include a drop of 76 in household-occupied houses, which on average have more people per household (2.80) compared to rental units (2.13). In addition, the number of vacant hous-

Table 3: 2010 Census Summary—Barrington, Bristol County, Rhode Island

	Barrington		Bristol County		R.I.
	Number	Percent	Number	Percent	Percent
Total population	16,310		49,875		
Male	7,804	47.8%	23,951	48.0%	48.3%
Female	8,506	52.2%	25,924	52.0%	51.7%
Median age (years)	44.1	(X)	42.9	(X)	(X)
Under 5 years	735	5.9%	2,179	4.4%	4.4%
20 years and over	11,422	70.0%	37,590	75.4%	75.1%
65 years and over	2,393	14.7%	8,343	16.7%	14.4%
Race					
White	15,449	94.7%	47,752	95.7%	81.4%
Black or African American	80	0.5%	398	0.8%	5.7%
American Indian and Alaska Native	21	0.1%	80	0.2%	0.6%
Asian	451	2.8%	716	1.4%	2.9%
Native Hawaiian and Other Pacific Islander	0	0.0%	3	0.0%	0.1%
Some other race	64	0.4%	185	0.4%	6.0%
Two or more races	245	1.5%	741	1.5%	3.3%
Hispanic or Latino (of any race)	333	2.0%	989	2.0%	12.4%

Source: US Census Bureau

ing units increased by 204 units, for a total of 392, as measured by the 2010 census. The number of renter-occupied units—which would include the 47-unit Sweetbriar development — increased by 59.

Table 3 (previous page) contains a breakdown of the 2010 census by ethnic group for Barrington, Bristol County and the State. In 2010, the Barrington's 16,310 residents were as follows: 94.7 percent white, 0.5 percent black, 2.8 percent Asian and about 1.9 percent other. These are approximately the same percentages as all of Bristol County, but vary from those for the state, which has a lower percent of white (81.4 percent) and higher percentages of the other ethnic groups. In addition, there are 333 people of Hispanic origin in Barrington, or 2.0 percent of the total population—almost double the number from 2000. Hispanics make up about 12.4 percent of the state population.

The Town's population is nearly a third of Bristol County's but only 1.6 percent of the state's population. In terms of its age distribution, the aging of the Baby Boomers is pushing up the Town's median age, from 40.2 years in 2000 to 44.1 years just 10 years later. The percentage of people 65 years and older in 2000 (14.7 percent) was approximately the same share as in the 2010 census. However, as more Baby Boomers reach retirement age, the number of residents in this age bracket is bound to increase.

Population Projections

Population projections completed by the Office of Statewide Planning of the State Department of Administration project that the town's population will decrease from 16,310 in 2010 to 15,569 in 2040, or approximately 740 people (4.5 percent). The projections suggest that Warren will experience a sharper decline in population (a decrease of 14 percent) than Barrington over the next 25 years, with Bristol gaining population, increasing a projected 3.6 percent.

The projections, however, have limited value for determining Barrington's future needs – housing, recreation, community services and facilities, etc. – given the State's model does not account for future growth in residential units. Of particular concern is the impact on population projections resulting from the housing production strategies aimed at achieving the 10 percent affordable housing goal. In response, for the purposes of this Plan the Town has elected to use its own projection (see Table 6 on Page 141) to factor in the impact of new housing as called for in the affordable housing strategies in the Housing & Neighborhoods Element, as well as ongoing housing construction activity unrelated to these housing strategies. (The impact of these strategies on future increases in population and housing units is discussed in the Issues & Opportunities section.)

Tax Base

Barrington is consistently ranked among communities with the highest residential share of total assessed value. **Table 4** shows the percentage breakdown by category for the tax base of Barrington and the state as a whole, in 2005 and

Table 4: Share of Tax Revenues by Assessment Category, 2005-2009

	Barrington			State Average		
Municipality	**2005**	**2009**	**% Point Change 2005-2009**	**2005**	**2009**	**% Point Change 2005-2009**
Residential	91.0%	90.4%	-0.6%	80.0%	75.3%	-4.7%
Commercial/Industrial	3.9%	4.4%	0.5%	12.4%	17.4%	5.0%
Motor Vehicles	4.5%	4.1%	-0.4%	5.7%	4.0%	-1.7%
Other	0.7%	1.1%	0.4%	1.8%	3.3%	1.5%

Source: RI Office of Municipal Affairs

2009. The figures show assessed residential values remaining at approximately 90 percent of the share of the total tax base. The share of the commercial tax base (industrial values are almost nil) increased from 3.9 percent to 4.4 percent, as several commercial and mixed-use projects were built during that period.

Issues and Opportunities

Meeting Land Use Objectives at "Build Out"

Future, long-term growth will continue to be a function of the State's economy and the health of the housing market. For Barrington, the most significant long-term factor will be the amount of land available for new development. As discussed elsewhere in the Housing and Neighborhoods element and other sections of the Comprehensive Plan, Barrington is inching closer to "build out," the condition where all buildable parcels are developed to the extent possible under existing zoning. The State's population projections for Barrington show a declining population in future years based on birth and mortality rates, in-migration and other factors. These projections do not factor in impacts of changes to future land use as recommended in the Comprehensive Plan, to achieve goals such as adding senior housing and complying with the State's affordable housing law.

Factoring in estimated use of vacant buildable land to achieve housing strategies over the next 20 years (see Table B-4 in Appendix I), the Town is likely to reach full build-out around 2040 (see **Table 5**). The Town's population projections, with the addition of the new housing anticipated in future years, comes to 17,814 in 2035, and about 18,050 at build-out a few years later (see **Table 6** on the next page).

Overall, this would represent a 10.6 percent population increase compared to 2014—which would affect issues such as schools (where enrollment is projected to fall by 19 percent by 2024), and community services and facilities. With Barrington approaching build-out, the Town will need to make the most efficient use of existing assets (municipal buildings, parks, school sites), to meet future needs, as well as take steps to avoid pushing development into areas that are unsuitable due to environmental values or potential natural hazards impacts.

Other issues related to build-out include the following:

- *More tear-downs.* Recent housing construction trends indicate more residential lots are being redeveloped for many of the new units built in town—pointing to a dimin-

Table 5: Projected Build-out Year by Zoning District

Estimated Acres Used - Vacant Buildable Land	R10	R25	R40	R40CD	SRV	B	NB	LM
Buildable Acres	21.4	127.4	44.0	47.4	7.4	4.6	9.8	1.2
%Used: LMI Strategies[1]	85%	86%	76%	0%	100%	20%	75%	100%
Acres used—through 2035	18.2	109.6	33.5	0.0	7.3	0.9	7.4	1.2
Remaining Vacant Land—2035	3.2	17.8	10.5	47.4	0.1	See footnote 2	2.5	0.0
Years to Build-out—After 2035 [3]	3.7	3.4	6.6	NA	0.0	0.0	7.0	0.0
Build-out Year	2039	2038	2042	NA	2035	2035	2042	2035

[1] Per *Table B-4: Estimated Acres Required for Strategies, by Zoning District*—Appendix I
[2] Remaining 80 percent of vacant Business-zoned property assumed to be developed as commercial
[3] Based on remaining vacant land and assumed rate of development

Table 6: Housing Development and Build-out Projections—Units, Population

Year	Single-Family Units [1]	Multifamily Units[1]	Special Approvals [2]	Residential Demolitions[1]	Net change
Annual Average —2005-2014	15	2	n/a	6	11
Projected Development Activity					
2015	14	0	4	6	12
2016	13	0	154	6	161
2017	12	1	3	6	10
2018	11	2	109	5	117
2019	11	2	5	5	13
2020	11	2	26	5	34
2021	12	2	7	5	17
2022	13	3	20	5	31
2023	13	4	10	5	22
2024	13	4	34	5	45
2025	12	4	10	5	21
2026	12	4	36	5	47
2027	12	4	10	5	21
2028	12	4	35	5	46
2029	12	4	12	5	23
2030	12	4	25	5	36
2031	12	4	11	5	22
2032	12	5	24	5	36
2033	12	5	28	5	40
2034	12	6	27	5	40
2035	12	6		5	13
Total: 2015-35	**255**	**70**	**590**	**112**	**804**
Total Est. Units - 2014					6,224
Total Projected Units—2035					7,028
Additional Units to Reach Build-out[3]	66	24			90
Total Units at Build-out					**7,118**
Assumed HH Size [4]	2.8	2.13	2.13	2.8	
Population Change	715	149	1,257	(312)	1,809
Adjusted Pop. Change [5]	693	144	1,217	(302)	1,751
Projected Pop.: 2015					16,063
Projected Pop.: 2035					17,814
Pop. Change - 2035 to Build-out	185	51	-		236
Projected Population: Build-out					**18,050**

[1] New single-family and demolitions based on 10-year rolling averages, starting with permit activity from 2005-2014
[2] Major comprehensive permit projects, projected units at Zion Bible Institute campus and other LMI units anticipated per *Table C-1: LMI Units by Strategy and Year* in Appendix I
[3] Based on Buildout Analysis —see Table 7 in Housing & Neighborhoods element
[4] Single-family HH size assumes owner-occupied HH size of 2.8 per unit (2010 census); 2-family and units in special approvals assume 2.13 HH size based on average size of rental units at 2.13 per 2010 census (note that these units will be a mix of owner and renter-occupied units; however, these include age-restricted units and multifamily units, which will result in smaller household sizes than typical owner-occupied units that existed in Barrington as of the 2010 census)
[5] RI Statewide Planning's projected -3.18% decrease in Barrington's population in 2035 per Technical Paper 162: Rhode Island Population Projections 2010-2040 (April 2013)

Source: Barrington Building Official Permit Records, Planning Department; Statewide Planning; 2010 Census

ishing supply of available vacant land. For example, 251 housing units (188 single-family units and 63 multi-family units) were built from 2000 to 2009. During that period, the town saw an overall net increase of just 187 housing units, according to census data. A review of demolition permit data suggest a substantial number of these units were built on lots where the original house was torn down — approximately 80 residential demolition permits were issued from 2000 to 2009.

- *Preserving community character.* The increasing pressure to tear down existing houses to redevelop existing lots is altering the character of established neighborhoods one lot at a time. Larger scale developments—such as the 40-unit Palmer Pointe on Sowams Road and the potential future redevelopment of the Zion Bible Institute campus—are on land abutting existing houses, requiring careful consideration of design issues such as buffers, building design, drainage, parking lots and lighting.
- *Providing parks and recreation facilities.* Provision of additional park facilities, including athletic fields, requires land. The Open Space and Recreation Element identifies a need for four new athletic fields, which will require either utilizing land currently owned by the Town or purchasing additional sites. The Plan also stresses a need to develop parks that benefit people of all ages and physical abilities, including walking and biking trails and tot lots/playgrounds.
- *Addressing community facilities and services needs.* The Plan (see Community Services & Facilities Element) discusses concerns regarding a need for improved facilities, including possibly a new Senior Center, and expanding or upgrading of schools.
- *Conservation of sensitive lands.* The Town and other organizations, including the Barrington Land Conservation Trust and Audubon Society, have purchased an extensive amount of open space parcels throughout town, mostly wetlands and other environmentally sensitive lands. Development on sites once considered marginal could fragment open spaces for Town parks and greenways and habitat corridors.
- *Preservation of prime agricultural land.* The Town also has taken steps to preserve its ties to agriculture, including lease agreements for farming operations to utilize Town-owned parcels. Fields used for growing crops and raising horse are maintained in the Four-Town Farm area off George Street; however, there are pressures to develop the area despite the lack of water and sewer and adequate roads.
- *Promotion of economic development.* Land available for commercial development is also scarce, with just a handful of vacant parcels in the Neighborhood Business and Business zones. As a result, future development is likely to occur incrementally, as smaller sites are filled in with new construction. Opportunities to expand commercial zoning are limited, and the Town in the past has adopted a position to maintain the size of commercial zones and emphasize the town's existing residential character (see the Economic Development Element).

Land Use Issues – Adjacent Communities

Barrington is connected by land with three communities: East Providence to the north/northwest, Swansea to the north/northeast and Seekonk (at the very northern tip of Barrington in the George Street area). Barrington and Warren are separated by the Palmer and Warren Rivers.

The Town has evaluated the future land use policies of the three communities, and determined the following:

- *East Providence.* East Providence's 2010 Comprehensive Plan describes land uses generally consistent with the Town land use

pattern, with low density residential uses for areas abutting medium-high and medium density areas in Barrington. East Providence designated as "open space" land abutting conservation properties the Wampanoag Trail and the section of Haines Park within Barrington on Bullocks Cove.

There is a conflict where East Providence's land use map depicts a "high density" residential district that borders the Town-owned Divine-Vargas conservation area in Barrington. This is not considered an issue, as the high density residential designation reflects existing land use (Stratford Arms Apartments), and the presence of wetlands at the city limits will prevent additional development from expanding south toward Barrington. The "Conservation" designation for the Divine-Vargas conservation area reflects the Town's intent to protect the 38-acre site, consisting mostly of forested wetlands – from development

- *Swansea, Massachusetts*. Barrington and Swansea share a border for approximately 1.9 miles, extending from rural George Street through wetlands abutting Hundred Acre Cove, across a pocket of residential development on New Meadow Road, through the Johannis Farm area to the coastal marshes of the Palmer River. Swansea has designated the entire area as "Rural Residential," where the minimum area for a residential lot is 60,000 square feet.

  Rural Residential is Swansea's most restrictive zoning district. Swansea has seen additional development in the form of large-lot subdivisions along Warren Avenue which has altered the rural character of areas near George Street. Additional housing in Swansea west of Warren Avenue could continue to erode the character of the area, but the 60,000-square-foot lot area minimums will help limit the impact. This Plan calls for an evaluation of Barrington's zoning in the George Street area – including larger minimum lot sizes – to protect the area from overdevelopment and limit conflicts between farming and residential use. Other areas that adjoin Swansea are either fully developed (medium-density residential on New Meadow Road and Barneyville Road) or protected open space (conservation land at Johannis Farm to the Palmer River). As Swansea already has in place its most restrictive zone for the entire area bordering Barrington, the Town has identified no significant concerns about land use conflicts.

- *Seekonk, Massachusetts*. Seekonk borders Barrington at the most northerly tip – land owned and farmed by Four-Town Farm off George Street. Seekonk has designated the area for 40,000-square-foot residential lots. A larger minimum lot requirement (such as the R-4 zone, with 62,500 square feet lot minimums) would be more consistent with Barrington's land use objectives for George Street.

Given the critical importance of protecting the rural character and agricultural use in the George Street area, Barrington should work to establish a dialog with the Towns of Seekonk and Swansea as well as East Providence to determine whether there is support among the municipalities to take additional action to further this Plan's goals for the area – such as zoning changes or development rights acquisition.

George Street

In 2012, the Town rezoned all of the Residence 40-zoned parcels in the George Street area to Residence 40-Conservation Development.. The zone is intended to allow the clustering of houses to preserve critical open space. No subdivisions have been filed under this new zone.

The R40-CD zone did not result in a lower number of units compared to what would be

Figure 1: Definition of "Farming" - Barrington Zoning Ordinance

The raising and keeping of cattle, horses, sheep or goats (but not swine, poultry or fur animals, or kennels for the raising or keeping of dogs or cats), and the growing of all agricultural products for commercial purposes, including fruits, vegetables, hay and grain; provided, however, that all structures used wholly or in part for the keeping or raising of animals or livestock shall be located a minimum of 100 feet from the nearest adjoining lot line. [Sec. 185-5 *Terms Defined*]

Source: Barrington Zoning Ordinance

allowed under the previous the R40 zoning. An issue is whether the R40 density is appropriate for the area given the number of issues specific to the George Street area and cited elsewhere in this plan. These include:

- A lack of available public water or sewer;
- The remote location of George Street, making delivery of services problematic;
- The goal of preserving farming as a viable economic use in this area. New housing units in the area could create conflicts due to noise from farming operations, such as dust and noise.
- The preservation of the historic rural landscape. Research has revealed the importance of the George Street in the early settlement of the region. The Allen-West House (circa 1763), added to the National Register in 2014, was once part of a much larger farmstead and today serves as a reminder of this area's lengthy rural past.
- The goal to protect community character—the rural, very low density character of George Street—would quickly become compromised with new development in the area.

The Town should re-evaluate the R40-CD zoning to determine whether additional measures are needed, including zoning revisions, to better address the above cited issues. Examples include establishing a rural residential zoning district—which is a common practice in more rural communities. For example, Cumberland has established agricultural districts requiring 80,000 to 5-acre minimum lot area. In Scituate's most rural districts, lots must be no less than 120,000 square feet in area. In another zone, Scituate requires an additional 20,000 square feet, for a total of at least 80,000 square feet, if there is no public water—as is the case on George Street.

The Town's Zoning Ordinance also is restrictive as to agricultural uses permitted in the George Street area– despite its historic ties to farming. For example, the use table has just three agricultural-related uses listed: farming, fruit or vegetable stand and commercial nursery or greenhouse. "Farming" is a fairly broad definition, relating to the raising of certain animals and the growing of agricultural products (see **Figure 1**). However, all three of these agricultural uses all require a special use permit, even in the R40-CD zone, which is only located in the George Street area. It is unclear why these—and possibly other agricultural uses—should not be changed to permitted, as-of-right uses in this area.

Future Use of Former Zion Bible Institute Campus

Given the limited supply of land in town for meeting future land use needs—housing, economic development, parks and recreation facilities, community facilities — careful planning is needed to ensure the community's goals are met to the extent possible when major parcels are developed or redeveloped. One of the significant sites identified in the 2009 Comprehensive Plan—the Sowams Nursery property on the east side of Sowams Road—is in the

[1] In 2014, a Superior Court judge affirmed the Planning Board's approval of the Palmer Pointe comprehensive permit.

Figure 2: Limited Manufacturing Property on Allin's Cove

The Town's last remaining Limited Manufacturing-zoned parcel (see arrow above) abuts Allin's Cove

plan review process. The master plan for 40 new affordable housing units received master plan approval in 2013.[1]

The redevelopment of the former Zion Bible Institute property—identified in the 2009 Comprehensive Plan's Future Land Use Map as suitable for a "Mixed-Use Village" — remains an unresolved issue. The Zion Bible Institute site (zoned Recreation and Education) was identified in the 2008 "Housing and Land Use Study" as a site for potential redevelopment, due to factors including land area, extent of environmental and other constraints, availability of infrastructure (water and sewer), and access to roads.[2]

The Zion site is unique in terms of size, with almost 40 acres, and because the fact that the site is in transition with the buildings mostly vacant after the Zion Bible Institute vacated the premises. The site also contains an important historic resource, Belton Court, and a number of campus buildings, many of which are outdated, including noncompliance with fire codes.

The new owner in 2014 presented a concept to develop a senior residential community at the site, with more than 200 housing units, a memory care wing and an assisted living facility, as well as other uses. The proposal would require the establishment of a new zone, consistent with the Comprehensive Plan. The Town's goals future use of the Zion site – Appendix II: Developer Guidance—originally was added to the Comprehensive Plan approved by the State in January 2010. The guidance provides a means to evaluate proposed development projects and/or proposed new zoning for the site. With the 2015 update, the guidance has been revised to place greater emphasis on the development of senior housing, to achieve one of the major Comprehensive Plan themes—meeting the needs of an aging population.

[2] Communities with ample land for future growth often plan for large areas involving many property owners; however, because of the limited amount of land left, the Zion site is identified specifically as an opportunity area for meeting multiple land use objectives.

See the Implementation element for information on implementation schedule, priorities, estimated costs, responsibilities and action types.

Other Land Use Issues

- *Allin's Cove—Limited Manufacturing Site.* This property (see **Figure 2**, previous page) is the last remaining LM-zoned site in Barrington. As the site has significant development constraints due to its proximity to Allin's Cove, the suitability of the existing zoning of the property (LM and R10) should be evaluated.
- *The commercial zones in the Maple Avenue and Bay Spring Avenue areas*, which are mostly developed but contain opportunities for redevelopment of under-utilized properties. The Maple and Bay Spring Avenue areas, in particular the Neighborhood Business districts, are identified in the Comprehensive Plan Update for increased commercial activity (Economic Development goals) and higher residential densities and varying housing types (Housing goals).
- *The former site of "The Place."* The 5-acre site, is zoned "Open Space-Active." The property has remained vacant since a barn that served as "The Place" was demolished in the mid-2000's. The use of the site remains an open issue, as cited in the Open Space & Recreation element.
- *Bed and breakfast inns.* The Economic Development element recommends allowing bed and breakfast inns in town. This will require establishment of appropriate regulations to limit impacts such as parking and noise.

Inconsistencies with Future Land Use Map

After the last Comprehensive Plan update, the Town rezoned approximately 100 parcels to bring the Zoning Map in line with the Future Land Use Map.

The new Future Land Use Map (FLUM) (Map LU-6) requires far fewer actions by the Town—see **Map LU-7**. The most significant potential change is to the George Street area, where the Comprehensive Plan recommends a re-evaluation of the zoning to encourage continued agricultural use and protection of existing rural character. This will require further study and a public process to determine how zoning should be adjusted.

Other areas identified on Map LU-7 include:

- The former Zion Bible Institute campus (#2 on the map). Appendix II outlines Developer Guidance for creating a new zone for the site, dependent on application by the property owner/developer.
- The Sweetbriar development site. The affordable housing development was approved under the comprehensive permit process, such that revisions to the Zoning Map are not required.
- The Sowams Nursery Site (#4 on the map) on the east side of Sowams Road. The Planning Board has approved a comprehensive permit for the property—the "Palmer Pointe" neighborhood. As with Sweetbriar, creation of a new zone is not required.
- The rear portion of a parcel (#5 on the map) abutting a paper street ("Bosworth Street Extension") zoned Business and conservation land—the "Brickyard Wetlands." Rezoning to a zone that is consistent with the "Conservation" FLUM designation is recommended.

See also Table 9A in the Implementation Element (Page 181) for the schedule for revising the Zoning Map to correct inconsistencies with the FLUM.

The Town has identified on the FLUM another inconsistency that requires further action: the location of the Urban Services Boundary as mapped by the State. The current boundary

encompasses Barrington in its entirety. This includes areas in the vicinity of George Street, where the Comprehensive Plan has multiple goals for protecting the existing agricultural use and rural character, as well as limiting impacts on One Hundred Acre Cove and the Douglas Rayner Refuge at Nockum Hill. The area's isolated location also makes it problematic for extending public services and facilities. Currently the George Street area, with the largest farming operation in town, lacks water and sewer infrastructure and adequate roadways.

The Future Land Use Map shows the Town's recommended revision to the Urban Services Boundary, which requires further action by the State to make official. (The location of the East Providence Urban Services Boundary in this area should be evaluated, as similarly rural areas are also inside the boundary.)

Goals, Objectives, Policies and Actions

Goal LU-1: Preserve the predominant residential character, while providing open space and limited commercial, industrial and institutional land uses to serve the needs of the community.

Policy LU-1.1.1: Emphasize the re-use of underutilized parcels in areas with adequate infrastructure and access to public services.

Policy LU-1.1.2: Ensure future development is compatible with adjoining land uses, the natural environment, available or planned community services and existing historic and cultural features.

Actions

Housing & Neighborhoods

A. Establish Senior Residential Village zone for the former Zion Bible Institute campus upon application and findings of consistency with Developer Guidance as outlined in Appendix II. [Goal HN-1, Action A]
B. Establish new zoning at the Allin's Cove and Former O'Bannon Mill Sites, as identified in the 2018 Bay Spring Corridor Zoning Study, consistent with the Appendix IIA of the Comprehensive Community Plan (as amended, 2019). [Goal HN-2, Action B]
C. Consider new residential zones to preserve community character in areas where the dimensional regulations such as minimum lot sizes are inconsistent with the existing built environment. [Goal HN-2, Action E]
D. Revise Zoning Ordinance to establish one-step density increase for comprehensive permit applications. [Goal HN-3, Objective 3.2, Action A]

Economic Development

E. Allow limited non-residential development in Senior Residential Village [Goal ED-3, Action A]
F. Amend zoning to allow bed and breakfast inns in suitable locations with appropriate standards to protect neighborhoods from adverse impacts. [Goal ED-3, Action C]
G. Consider creation of a new zoning district, modifying the Neighborhood Business or Business zone, to promote a more cohesive retail environment in the Village Center. [Goal ED-5, Action A]
H. Evaluate amending zoning of areas where established uses, such as commercial uses within R10 sections of Bay Spring Ave.—are nonconforming. Evaluate future zoning of remaining LM-zoned land within town. [Goal ED-5, Action B]
I. Evaluate whether revisions to restrictions in the Zoning Ordinance are needed related to agricultural uses, to include uses such as farms, farm stands and farmer's markets. [Goal ED-6, Action A]
J. Amend or establish new zoning district for the George Street area to preserve rural

character / promote farming. [Goal ED-6, Action C] [See also Goal NCR-6, Action A]

Community Services & Facilities

K. Work with State to amend State's Urban Services Boundary as shown on Maps LU-6 and LU-7. [Goal CSF-2, Action F]
L. Consider appropriate use of the former site of "The Place" on Middle Highway, the Hampden Meadows Volunteer Fire Department property on Sowams Road and the Bristol County Water Authority facility on Nayatt Road; rezone as necessary. [Goal CSF-2, Action G]

Natural & Cultural Resources

M. Rezone land abutting "Bosworth Street Extension" paper street to a zone consistent with the FLUM designation (see also Map LU-7). [Goal NCR-1, Objective NCR-1.1, Action F]
N. Amend Zoning, Subdivision Regulations to ensure open space is dedicated in a manner consistent with the Town's open space acquisition criteria (see Open Space & Recreation Policy 3.1.2). [Goal NCR-1, Objective 1.2, Action D]

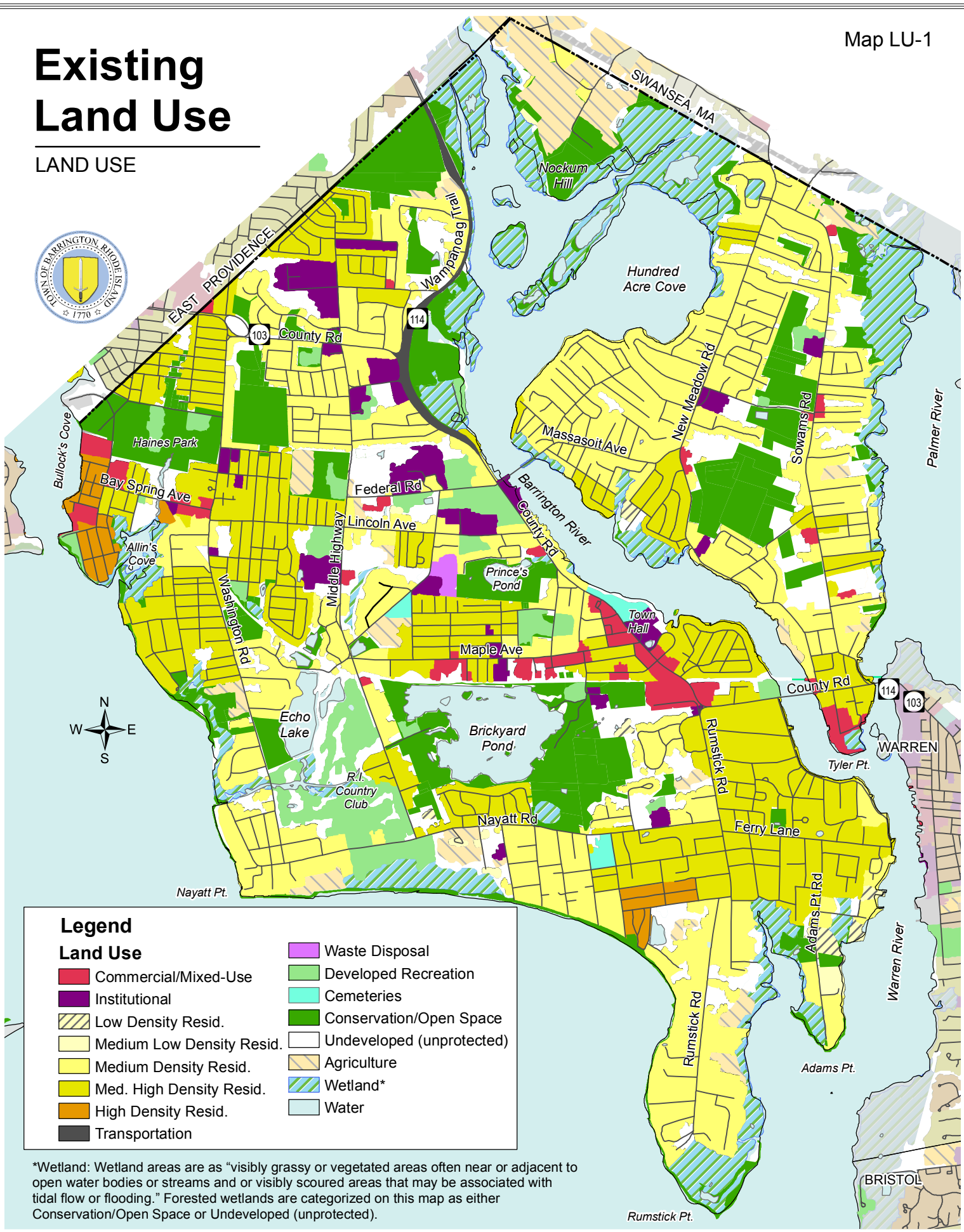
Natural Hazards

O. Consider requiring smaller lot sizes, such as through a cluster subdivision design, to ensure development is outside the existing or projected floodplain, reducing potential impacts of rising sea levels. [Goal NH-1, Action C]

Existing Land Use

LAND USE

Map LU-1



Legend

Land Use

- Commercial/Mixed-Use
- Institutional
- Low Density Resid.
- Medium Low Density Resid.
- Medium Density Resid.
- Med. High Density Resid.
- High Density Resid.
- Transportation
- Waste Disposal
- Developed Recreation
- Cemeteries
- Conservation/Open Space
- Undeveloped (unprotected)
- Agriculture
- Wetland*
- Water

*Wetland: Wetland areas are as "visibly grassy or vegetated areas often near or adjacent to open water bodies or streams and or visibly scoured areas that may be associated with tidal flow or flooding." Forested wetlands are categorized on this map as either Conservation/Open Space or Undeveloped (unprotected).

0 4,000 8,000 Feet

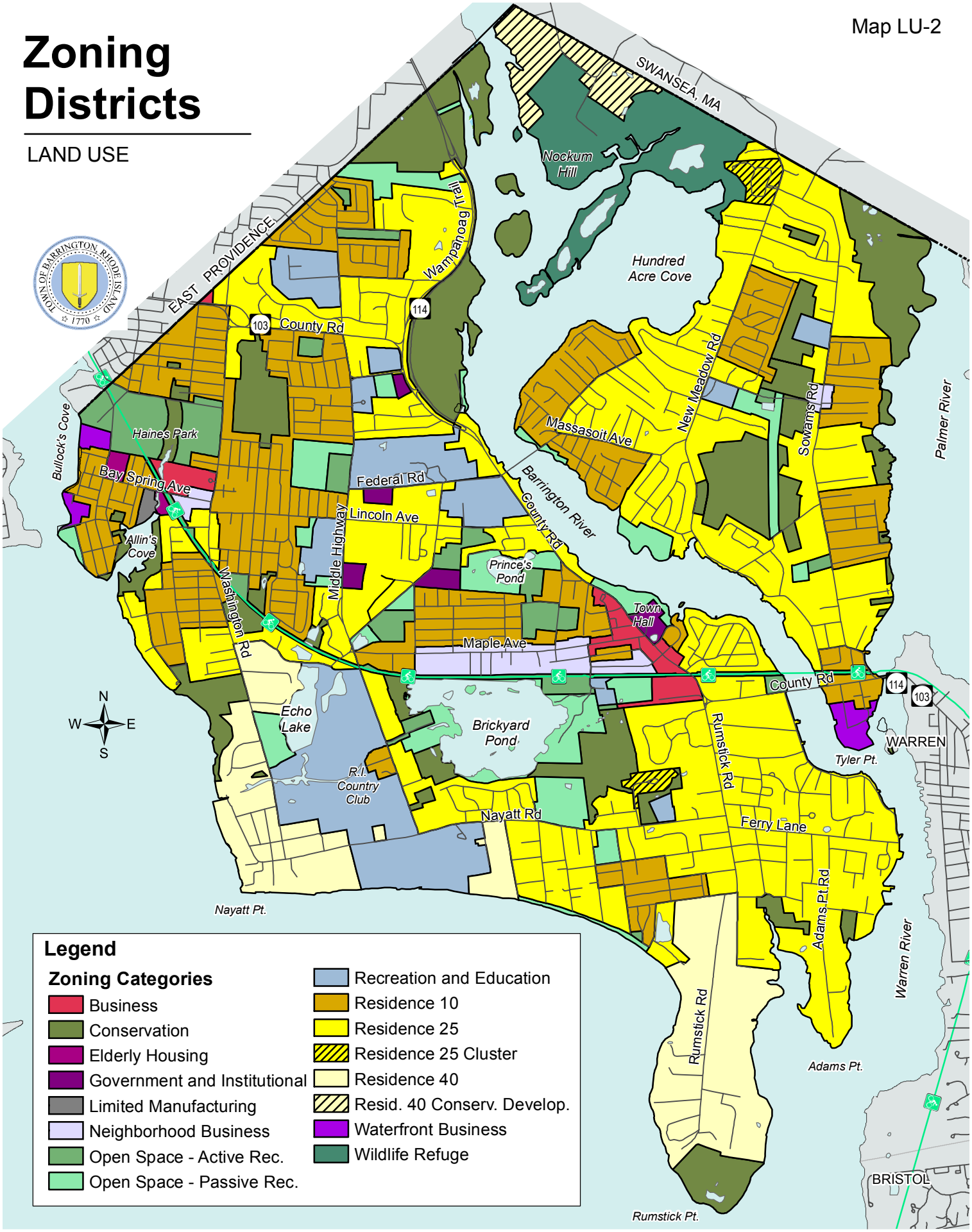
SOURCE: Town GIS, RIGIS (2011 Land Use data)

Comprehensive Community Plan - 2015 Update / Town of Barrington

Zoning Districts

LAND USE

Map LU-2



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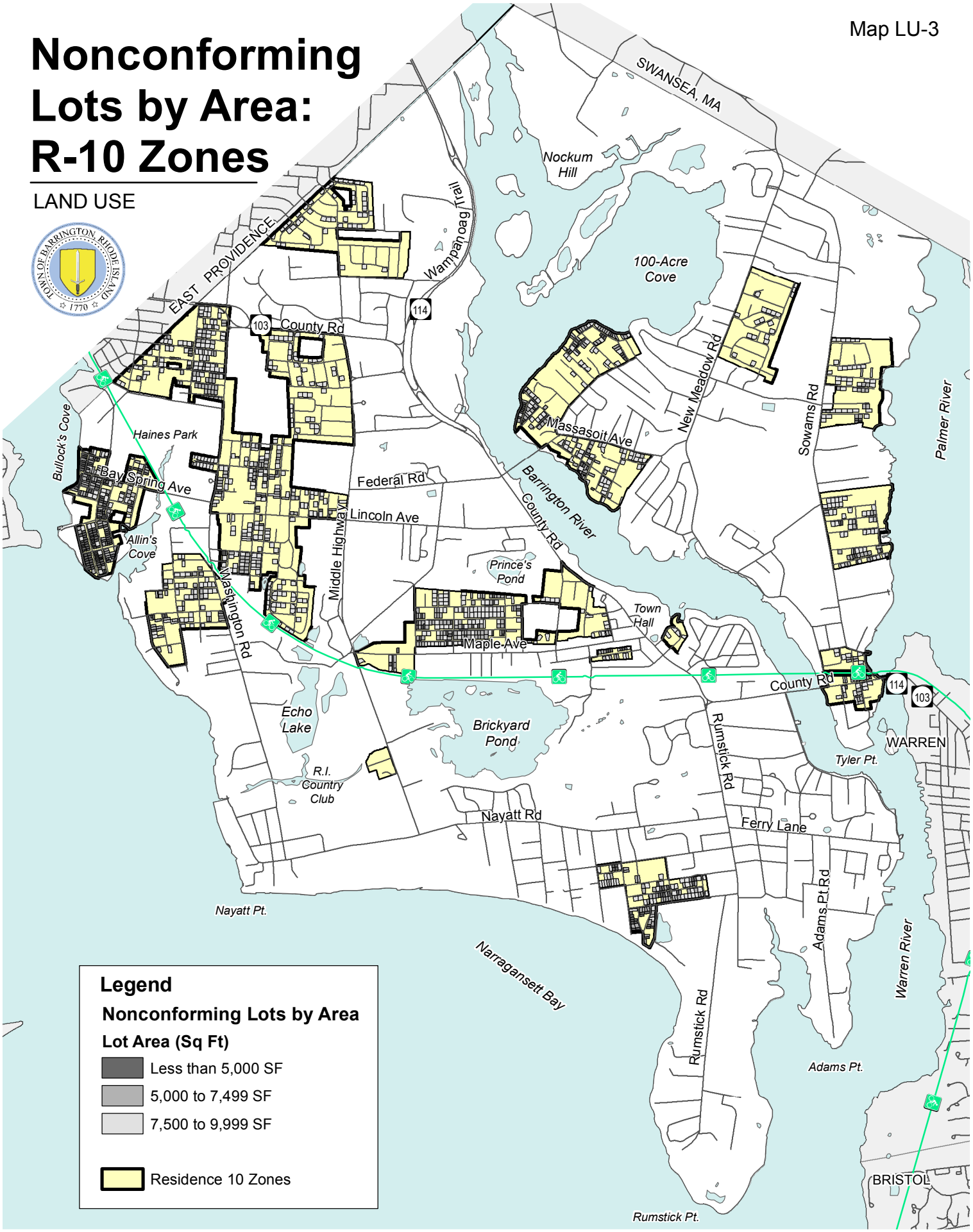
SOURCE: Town GIS, Zoning Map

Comprehensive Community Plan - 2015 Update / Town of Barrington

Nonconforming Lots by Area: R-10 Zones

LAND USE

Map LU-3



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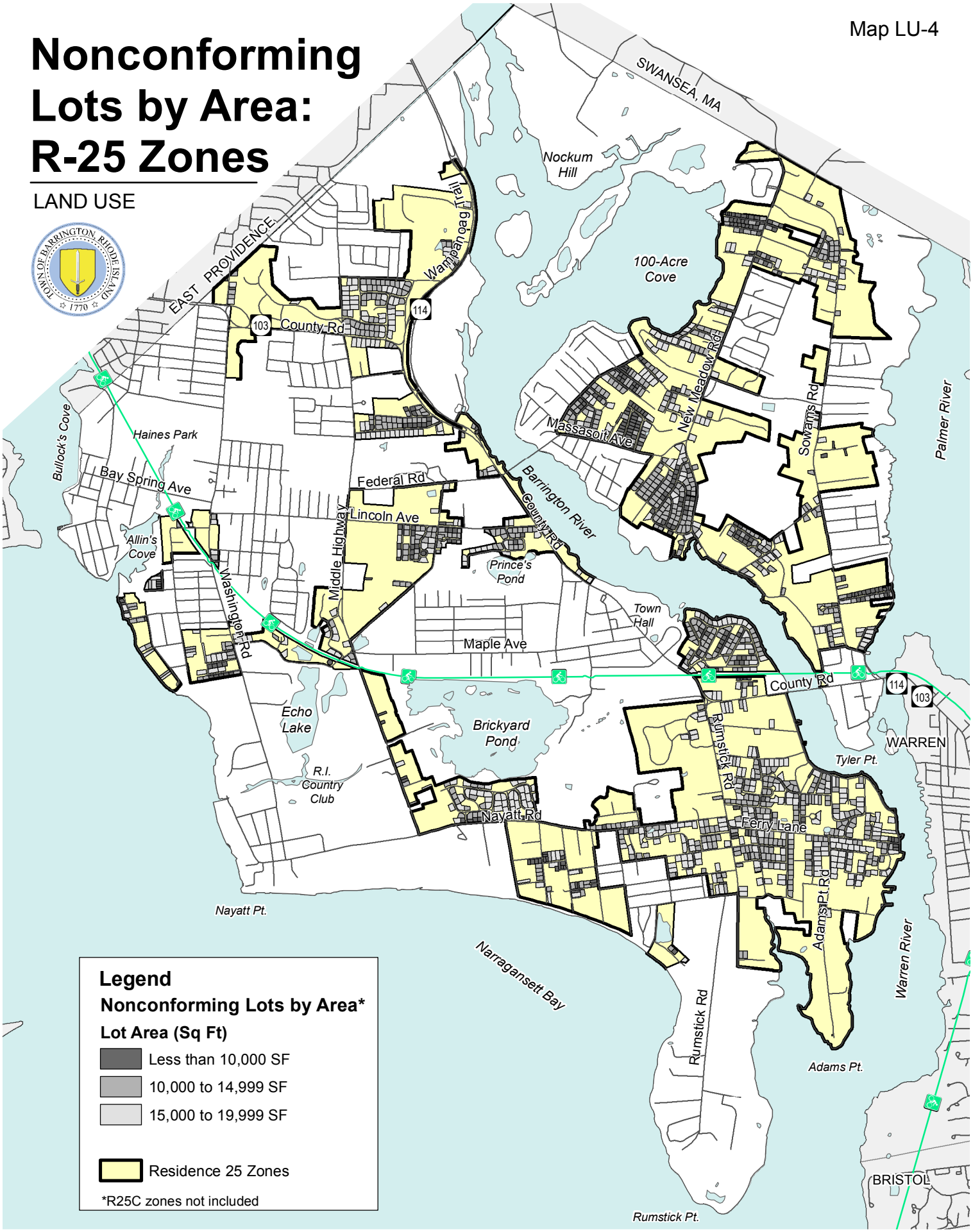
SOURCE: Town GIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Nonconforming Lots by Area: R-25 Zones

Map LU-4

LAND USE



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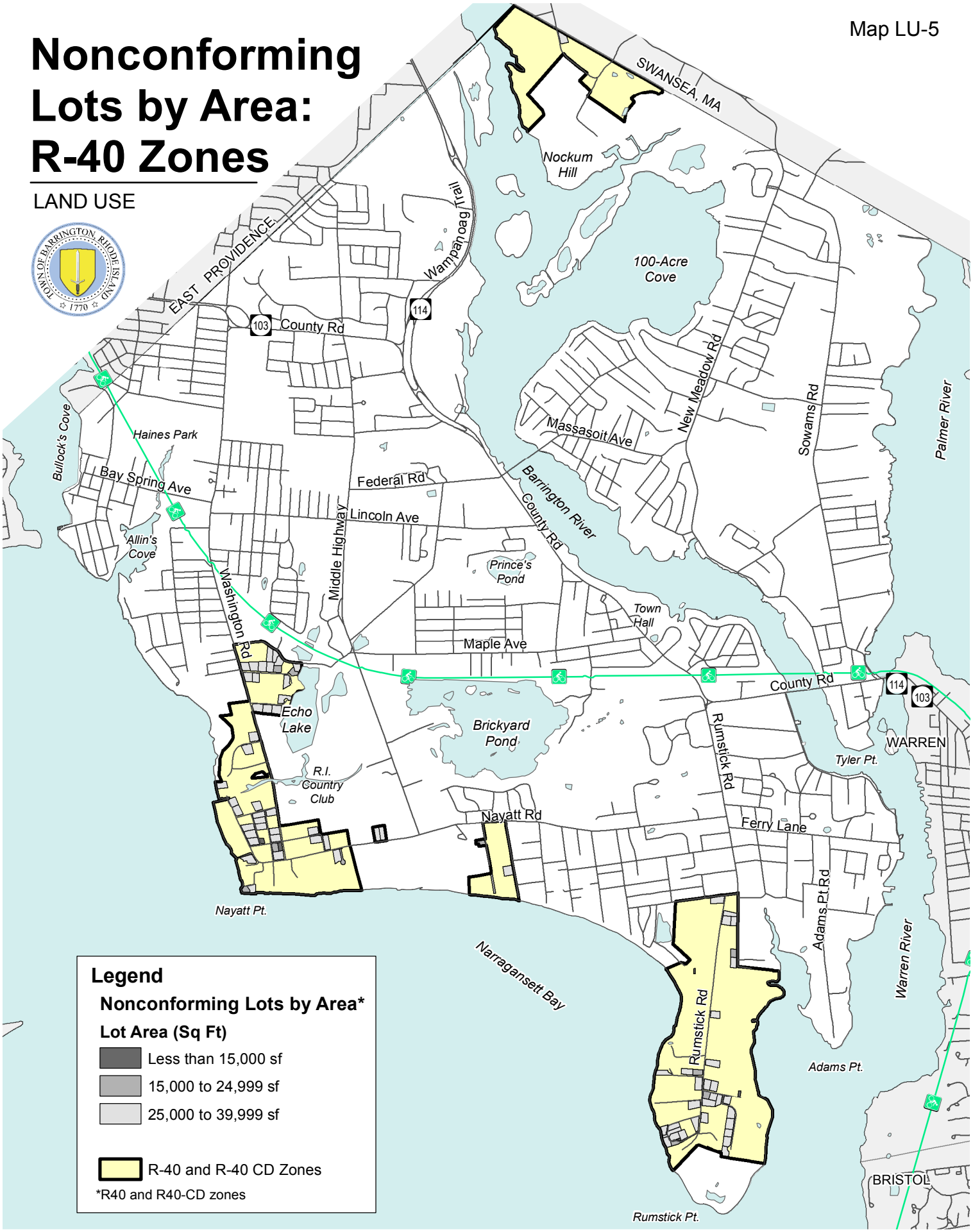
SOURCE: Town GIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Nonconforming Lots by Area: R-40 Zones

LAND USE

Map LU-5



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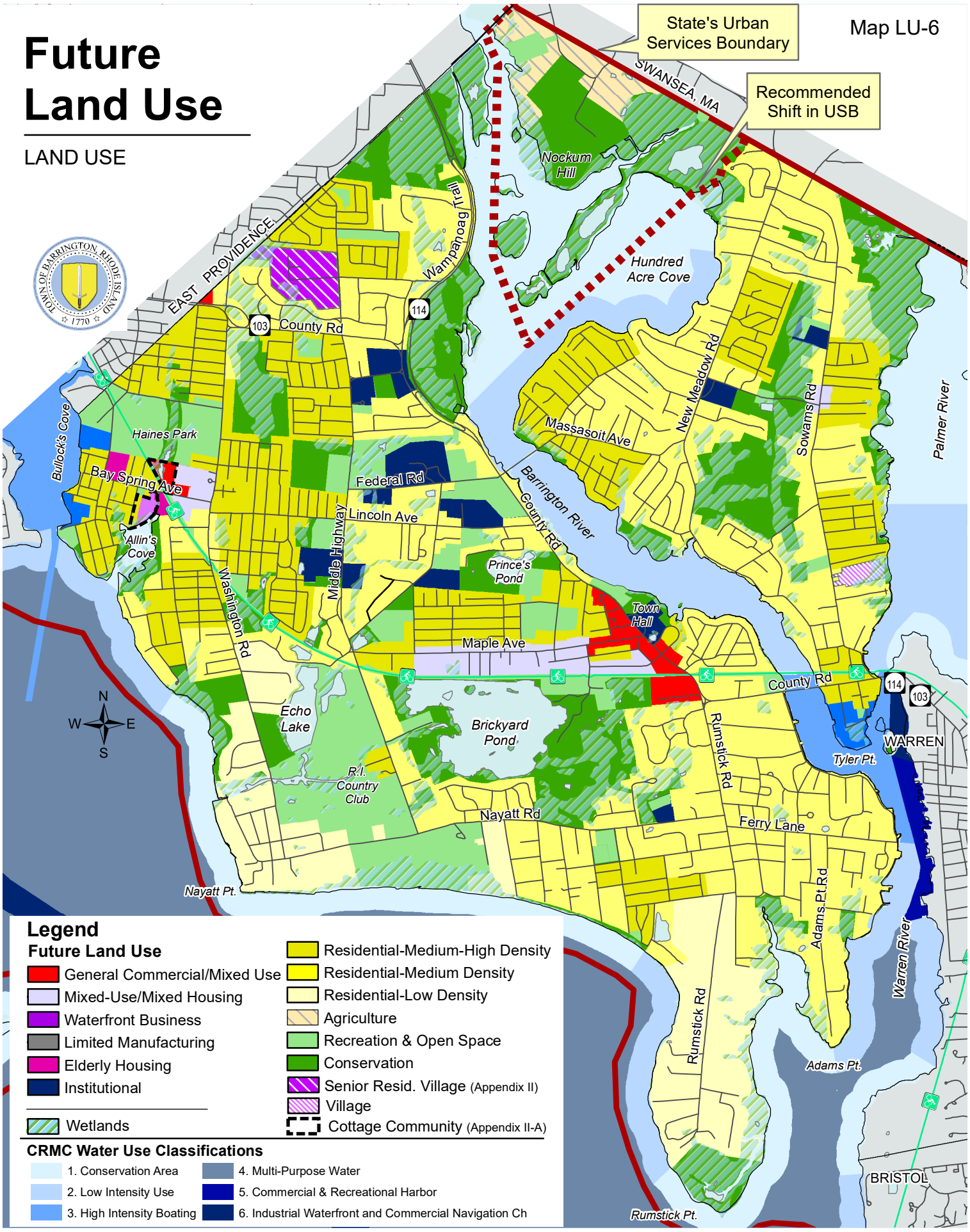
SOURCE: Town GIS

Comprehensive Community Plan - 2015 Update / Town of Barrington

Future Land Use

LAND USE

Map LU-6



0 4,000 8,000 Feet

SOURCE: Town GIS, Zoning Map, RIGIS data

Comprehensive Community Plan - 2015 Update / Town of Barrington
Amended July 29, 2019

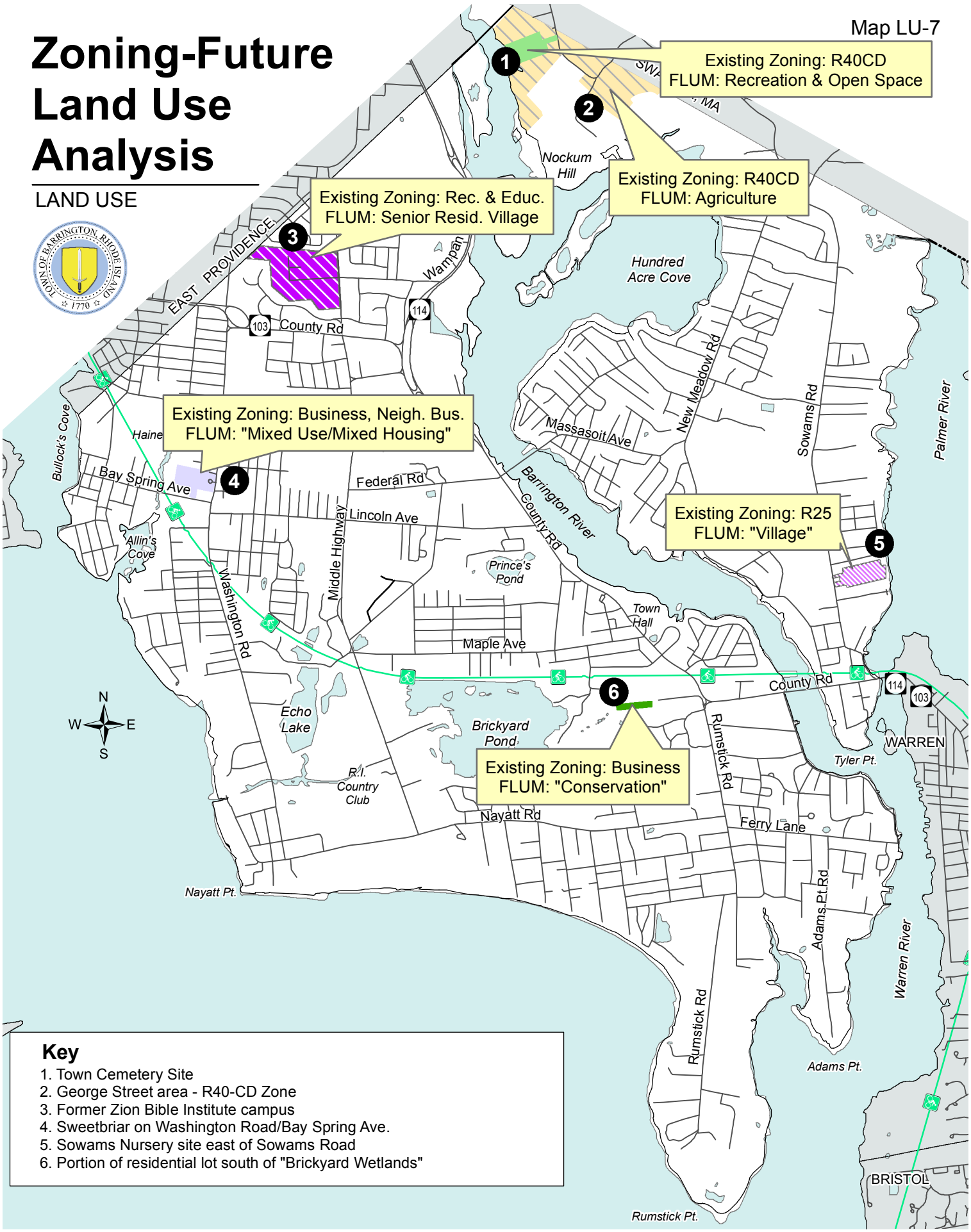
KEY: Future Land Use Map (Map LU-6)

Land Use	Definition	Typical Zoning: Existing and Proposed	Color	
Agriculture - Rural	Areas where agriculture is the primary land use but also includes residential use. The future land use intent is to preserve rural character, prime farmland and open spaces through larger minimum lot sizes, and other land conservation strategies; the extension of infrastructure such as public water or sewer lines shall not be permitted.	Existing: R-40 - Conserv. Development (R40-CD) Proposed: Agriculture-Rural	Pale Yellow with Diagonal Lines	Agriculture
Residential – Low / Medium / Medium-High	Single family housing at typical suburban densities (Low Density – 1 unit per acre; Medium – 1 to 4 units per acre; Medium-High – 4 to 8 units per acre).	R10 to R40	Yellow	Residential / Mixed Use
Elderly Housing	Elderly housing apartments; includes assisted living facilities.	Elderly Housing	Pink	
Mixed Use / Mixed Housing	An area that is appropriate for a mix of residential and non-residential uses, including neighborhood-oriented business uses that are in character and scale with, and appropriate to, proximate residential uses, mixed-use development and multifamily housing.	Neighborhood Business	Light Blue	
Waterfront Business	Areas now used or are planned for future use of business enterprises requiring or appropriate for waterfront or shoreline locations.	Waterfront Business	Blue	Commercial / Industrial
General Commercial / Mixed Use	Areas that form the basic pattern of retail and service business serving the community, and areas planned for expansion of such business, including buildings with apartments above retail	Business	Medium Red	
Limited Manufacturing	Land currently in light manufacturing and related uses, and areas that are considered suitable for future light manufacturing uses.	Limited Manufacturing	Gray	
Conservation & Agriculture	Areas intended to be protected from development, including areas in the locations of wetlands and other critical environmental features. Includes lands used for agricultural purposes. Some areas are suitable for limited passive recreation such as trails.	Wildlife Refuge, Conservation, Open Space-Passive	Green	Conservation
Recreation & Open Space	This category includes public parks and public and private recreation areas and facilities such as public and private golf courses, trails and easements, cemeteries, the YMCA, and any other public usage of large areas on permanent open land.	Open Space-Passive, Open Space-Active, Recreation & Education	Pale Green	Civic / Open Space
Institutional	Any site for public or semi-public facilities, including governmental offices, police and fire facilities, and public and private schools.	Recreation & Education, Government & Institutional	Navy Blue	
Senior Residential Village (SRV), Residential Village (V)	Master-planned developments for large multi-acre tracts that incorporate a wide variety of land uses as described in the developer guidance for establishment of these zoning districts (Appendix II).	Senior Residential Village, Village (Proposed)	Light and Medium Purple with white diagonal lines	Special Purpose
Cottage Community	Master-planned developments for multi-acre tracts with cottage-style housing and, where appropriate, mixed-use, with public access and conservation areas as described in developer guidance (Appendix IIA).	Cottage Community (CC) (Proposed)	Dashed Line	
Water	Any public waters, including lakes, rivers, and creeks.	--	Light Blue	
Wetlands	Wetland areas.	--		

Zoning-Future Land Use Analysis

LAND USE

Map LU-7



Key

1. Town Cemetery Site
2. George Street area - R40-CD Zone
3. Former Zion Bible Institute campus
4. Sweetbriar on Washington Road/Bay Spring Ave.
5. Sowams Nursery site east of Sowams Road
6. Portion of residential lot south of "Brickyard Wetlands"

0 4,000 8,000 Feet

SOURCE: Town GIS, Zoning Map

Comprehensive Community Plan - 2015 Update / Town of Barrington

10 IMPLEMENTATION PLAN

Overview

The Town has completed a lengthy process to revise the Comprehensive Community Plan, but much work remains to be done for the plan to be successful: new regulations and policies; zoning revisions; planning studies; funding for capital projects. These details are spelled out in this Implementation Plan — a framework to move forward the Plan's goals, objectives, policies and actions over the next decade. The Implementation Plan (**Tables 1** through **9** on the following pages) is organized as follows:

- *Consistency with Major Themes*. To establish implementation priorities, each action has been evaluated based on consistency the six major themes (see **Figure 1)**.
- *Priority*. The priority level (High, Medium and Low) for each action is based on relevancy across the major themes.
- *Cost*. The anticipated cost as follows:
  No Cost
  $: Up to $25,000
  $$: $25,000 to $100,000
  $$$: $100,000 to $250,000
  $$$$: $250,000+ (bond or multi-year appropriation likely required)
  Projects in Town's Capital Improvement Program are noted.
- *Timeframe*. Factors used to determine the timeframe for specific actions include priority level scores, cost/budget implications, and whether an action is mandated. Timeframes are categorized as follows:
  Short-Term: 0 to 2 years
  Mid-Term: 2 to 5 years
  Long-Term: 5 to 10 years

Figure 1: Major Themes

Meeting the needs of an aging population

Promoting a vibrant Village Center and diverse economy

Strengthening connectivity within town

Embracing a cleaner, greener future through sustainable practices

Conserve and protect the special qualities of Barrington's neighborhoods

Achieving resilience in the face of a changing environment

- *Responsibility*. The recommended lead responsible party—agency, department, board, private organization, etc.—is identified.
- *Type of Action*. Types of implementation actions fall into four general categories:
  - ◊ *Capital*: Projects requiring significant investment from Town, State and/or Federal funding sources, such as installation of sidewalks and other infrastructure.
  - ◊ *Program*: Actions involve more planning to implement, such as developing a streetscape plan or open space plan.
  - ◊ *Regulation*: Actions relate to projects involving Town regulations – such as amendments to the Zoning Ordinance and/or Subdivision & Land Development Regulations.
  - ◊ Policy: Actions are those that involve adoption of local ordinances and policies—such as involving Town depart-

ments in implementing management plans for parks and open space parcels.

It is expected that the timeframe will be adjusted in the coming years as the Comprehensive Plan is evaluated and new issues and priorities emerge. Responsibilities may also shift from one party to another, or become a shared responsibility. In short, the Implementation Plan is intended to be flexible, to be adjusted over time as actions are completed incrementally over the next 10 years.

Monitoring Plan

For the Plan to be effective and relevant over time, continued community involvement will be essential. A monitoring plan provides steps to track implementation, and to periodically re-

An annual Council/Planning Board workshop to review of the implementation status is recommended.

evaluate priorities based on community feedback. The Planning Board recommends that the Town conduct a review of the plan on an annual basis—including a review of indicators (see **Figure 2**)—to establish action items and funding priorities for each year to align with the budget process. Also recommended is the use of a community survey after two to three years into the implementation of the Plan to identify new issues and priorities and possible revisions to the Plan prior to the next required update in 10 years.

Figure 2: Community Indicators

Following are indicators that will be used to track measurable outcomes:

Housing & Neighborhoods:
- Housing Trust Fund—Available, Spent Funding
- Number of "Tear-Downs"
- Number, % of LMI Housing Units
- Number of "Senior" Housing Units
- Number of Multifamily Units

Economic Development
- Commercial Square Feet
- Vacancy Rate and Rents
- Linear Feet of New Sidewalks Added in Commercial Areas
- Room Tax Revenues
- Meals Tax Revenues
- Number of Identified Public Parking Spaces by Business District

Circulation
- Linear Feet of Sidewalk Repaired and Built within Town
- Linear Feet of New Bike Paths, Bike Lanes
- Number of New Bike Racks Installed (Added Capacity)
- Accidents at Key Intersections
- Sidewalk Reserve Fund—Balance
- Miles of Roads Paved
- Traffic Volume Changes on County Road

Community Services & Facilities
- School Enrollment
- Town Meeting Room Utilization Rate
- Recycling Rate / Total Solid Waste
- Wastewater Reserve Fund

Natural & Cultural Resources
- Number of Properties / Sites / Districts Added to National Register
- Preservation Society "Plaque Houses"
- Beach Closings
- Special Use Permits Granted—Wetlands
- Brickyard Pond Water Quality

Open Space & Recreation
- Linear Feet of Pathways/Greenways Improved
- Protected Open Space—Acreage: Total, Additional Acreage
- Field Utilization Rates

Energy
- Reduction of Energy Use Measured Against FY2009 Baseline Year
- Renewable Energy Production (kwH) —Town / School Sites
- Revolving Energy Fund: Budget/Expenditures

Natural Hazards
- Repetitive Loss—Total Cost
- Number, Value of Mitigated Properties

Table 1: Housing & Neighborhoods

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					**Priority / Cost**	**Time-frame**	**Respons-ibility (Type)**
Goal 1: Expand supply of senior housing to meet growing demand of retiring Baby Boomers and the needs of residents with disabilities.									
A. Establish new Senior Residential Village zoning at the former Zion Bible Institute site consistent with the Comprehensive Community Plan – Appendix II.	See Land Use Implementation table - Goal LU-1, Action A								
B. Establish new zoning at the Allin's Cove and Former O'Bannon Mill Sites, as identified in the 2018 Bay Spring Corridor Zoning Study, consistent with the Appendix IIA of the Comprehensive Community Plan (as amended, 2019).	See Land Use Implementation table - Goal LU-1, Action B								
~~B.~~ C. Complete a study of the market viability of the existing Zoning Ordinance Article XXX: Senior Residential Communities, and revise to enable cottage-style developments consistent with the Comprehensive Plan.	●						Low Priority / $	Mid-Term	Planning Board (Program)
~~C.~~ D. Revise Zoning Ordinances to allow for "senior-friendly" attached and detached accessory apartments on single-family lots.	●						Medium Priority / $	Short-Term	Planning Board / Council (Program / Regulation)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 1 (cont.): Housing & Neighborhoods

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+								
Goal 2: Ensure that future development is compatible with the character of Barrington in general and that of individual neighborhoods.									
A. Adopt flexible zoning standards to allow architectural encroachments and encourage greater variety, such as architectural encroachments (porches, stoops, bay windows, etc.) into the minimum front-yard setback.					◐		Medium Priority / $	Short-Term	Council/ Planning Board (Regulation)
B. Consider adjusting the setback averaging dimensional standards, where appropriate, to allow reduced front-yard setbacks consistent with the surrounding historic neighborhood development pattern.					◐		Low Priority / No Cost	Short-Term	Council/ Planning Board (Regulation)
C. Adopt Village Center Design Guidelines and formally incorporate in the Town's review process for commercial, mixed-use and multi-family development proposals.		◐			◐		Medium Priority / $	Mid-Term	Planning Board (Program / Regulation)
D. Strengthen or establish new standards for buffers, site lighting, location of parking and placement of buildings within land development projects, including mixed-use and multi-family developments.					◐		Medium Priority / $	Mid-Term	Planning Board (Regulation)
E. Conduct parcel study to: • Evaluate compatibility of R10 and R25 zoning with existing neighborhoods to determine whether zoning should be adjusted or new zones established to better reflect the area's character. • Recommend zoning standards that would require homes on "teardown" lots to better reflect	See Land Use Implementation table - Goal LU-1, Action B								
F. Create a Neighborhoods Map based on original plats and evolution of neighborhoods over time, as means of identifying historic boundaries of neighborhoods.					○		Low Priority / $	Long-Term	Preservation Society (Program)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 1 (cont.): Housing & Neighborhoods

	Significance - Major Themes*								
Goals & Actions	55+						Priority / Cost	Time-frame	Respons-ibility (Type)
Goal 3: Continue to comply with the State's 10 percent affordable housing goal through provision of well-integrated and compatible affordable housing. **Objective 3.1: Qualify as affordable at least three existing housing units on scattered sites per year by 2020.**									
A. Fund a revolving fund to support a Housing Trust program to acquire and rehabilitate existing houses in order to qualify the homes as affordable.					●	○	High Priority / $$$ to $$$$	Short-Term	Council / Housing Board (Program, Policy)
B. Formally adopt incentives to capture existing houses affordable to LMI households, such as property tax abatements and funding from the Home Repair Program.					●	○	High Priority / $$ to $$$	Short-Term	Council / Housing Board (Policy)
C. Establish specific guidelines for acquiring / qualifying existing houses by Planning Board applicants subject to provisions of mandatory inclusionary zoning, as permitted an "off-site" alternative.					○		Medium Priority / No Cost	Mid-Term	Planning Board / Housing Board (Regulation)
D. Engage a consultant, contract with an outside agency, or establish a part-time position to administer the program. Provide an annual report, from the Housing Board of Trustees, on the status of the program, including the number of LMI houses qualified each year and an analysis of the need for housing programs, such as applications for heating assistance and weatherization.					○		High Priority / $	Short-Term / Ongoing	Council / Housing Board (Policy, Program)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 1 (cont.): Housing & Neighborhoods

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal 3: Continue to comply with the State's 10 percent affordable housing goal through provision of well-integrated and compatible affordable housing. **Objective 3.2: Produce affordable housing units at a rate that keeps Barrington on the path toward achieving the 10 percent affordable housing goal by 2035.**									
A. Revise Zoning Ordinance to establish one-step density increase for comprehensive permit applications, per Policy HN-3.2.3.	See Land Use Implementation: Table 9- Goal LU-1, Action C								
B. Work with the State to allow for more flexibility to qualify accessory apartments as affordable; establish a realistic inclusionary zoning fee-in-lieu amount; increase credit for provision of rental units; enable a rent subsidy program to increase the LMI housing count.					●		High Priority / $	Short-Term	Council / Housing Board (Policy)
C. Create an illustrated guide illustrating best practices for designing cottage-style housing, accessory apartments and two-family structures.					●		Medium Priority / $	Mid-Term	Planning Board / Housing Board (Program)
D. Hold workshops and conduct other public outreach on affordable housing options available in the Zoning Ordinance and Subdivision Regulations.	○						Low Priority / $	Mid-Term	Housing Board (Program)

*Key — Significance: Implementation of Major Themes: ● High ● Medium ○ Low

Table 2: Economic Development

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	Shops							
Goal ED-1: Continue shift from an auto-dependent, suburban shopping center form of development toward walkable retail zones in the Village Center and neighborhood business districts.									
A. Implement recommendations of the 2014 Connectivity Plan.	○	●	●	○			High Priority / $$$$ [In CIP]	Short-Term	Council (Capital)
B. Extend wayfinding signage and streetscape concepts to commercial districts outside the Village Center.		○	●				Medium Priority / $$$$	Long-Term	Council / Planning Board (Program / Capital)
C. Adopt revisions to Land Development & Subdivision Regulations to add design guidelines to the review process.		○			●		High Priority / $	Short-Term	Council / Planning Board (Program)
Goal ED-2: Expand public parking within the Village Center.									
A. Conduct parking study for Village Center that includes: inventory of existing parking, recommendations on adding on-street and off-street public parking spaces; parking management; funding, shared parking utilization; incentives, parking-in-lieu options, parking maximums		●	○	○			High Priority / $$ [In CIP]	Short-Term	Planning Board / Council (Program, Regulation, Policy)
B. Highlight on-street parking in desired locations using painted markings / signage to outline spaces.		○					Medium Priority / $	Short-Term	DPW (Program)
C. Negotiate w/ private owners and develop public/private partnerships to allow "public" parking in private lots. If unsuccessful, determine if potential purchase of lots would be feasible (e.g. underutilized private lots along Maple Avenue).		●	○				High Priority / $$ to $$$$	Short-Term	Council (Policy / Capital)
D. Update village center signage and mapping to direct drivers to new "public" parking lots [See also Circulation Goal C-2, Action A]			●				Medium Priority / $ [In CIP]	Short-Term	Council / Planning Board (Capital)
E. Develop criteria and Town-wide policy regulating establishment of on-street parking.					○		Medium Priority / No Cost	Mid-Term	Council / Police / DPW (Policy)

*Key — Significance: Implementation of Major Themes: ● High ● Medium ○ Low

Table 2 (cont.): Economic Development

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal ED-3: Expand the non-residential tax base while preserving community character, with an emphasis on infill development and building re-use over expansion of commercial zoning.									
A. Allow limited non-residential uses within a "Senior Residential Village" zone, per Appendix II (subject to application by the owner)	See Land Use Implementation: Table 9- Goal LU-1, Action D								
B. Examine development standards for B, NB districts in terms of limiting impacts of development on adjacent residential zones. [See also Housing & Neighborhoods Goal 2, Actions C and D]					◐		Medium Priority / $	Mid-Term	Planning Board (Program / Regulation)
C. Evaluate adding B&B inns as permitted or special use in resid. zones, w/ standards to include location, parking, related accessory uses.	See Land Use Implementation: Table 9- Goal LU-1, Action E								
Goal ED-4: Strengthen the Town's commercial base with a focus on promoting existing local businesses and economic sustainability.									
A. Form a task force consisting of residents, local business owners to develop strategies to support local businesses.		●					High Priority / $	Short-Term	Council / Business Association (Policy)
B. Support efforts of the Business Association to promote the district through a banner system, etc.		◐					Medium Priority / $	Long-Term	Council / Bus. Assoc. (Policy)
C. Amend Zoning Ordinance to reduce barriers to home-based businesses and necessary support services; while protecting neighborhoods from impacts.		◐		○			Medium Priority / $	Short-Term	Council / Planning Board (Program / Regulation)
D. Investigate space in public buildings that could support home-based businesses, such as meeting space.		○		○			Low Priority / $	Long-Term	Town Planner (Program)
E. Conduct study on allowing uses to encourage provision of services and amenities supporting creative & knowledge-based businesses & consulting activity, including expansion of live-work opportunities.		◐		○			Medium Priority / $	Mid-Term	Planning Board (Program)
F. Conduct market study of retail, office environment in NB, B zones.		◐					Medium Priority / $	Mid-Term	Town Planner (Regulation)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 2 (cont.): Economic Development

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal ED-5: Promote desired commercial activities in mixed-use areas.									
A. Evaluate zoning strategies to promote a more cohesive retail environment in the Village Center. This could include creation of a new zoning district, modifying the Neighborhood Business or Business zone	See Land Use Implementation: Table 9- Goal LU-1, Action F								
B. Complete a parcel/zoning study of the Bay Spring area to identify options to promote the type of economic development desired by the community in the area. The study should address the following: Evaluation of the LM zone; options to allow live-work units in study area	See Land Use Implementation: Table 9- Goal LU-1, Action G								
Goal ED-6: Support agriculture as a vital component of the local economy.									
A. Evaluate whether revisions to restrictions in the Zoning Ordinance are needed related to agricultural uses, to include uses such as farms, farm stands and farmer's markets.	See Land Use Implementation Table 9- Goal LU-1, Action H								
B. Revise Zoning Map to establish agricultural zoning districts where appropriate, in areas with historic agricultural use (including George Street) to include performance standards.	See Land Use Implementation: Table 9- Goal LU-1, Action I								
C. Evaluate Town-owned open space formerly used for farming for opportunities to lease portions to organic farming operations on a limited scale.		○		○			Low Priority / No Cost	Long-Term	Council / Planning Board (Regulation)
D. Continue to develop the community garden at the former Vitullo Farm site.				○			Medium Priority / No Cost	Ongo-ing	Town (Policy)
E. Review and revise local purchasing requirements to require the purchase of regionally produced foods when possible.		○		○			Low Priority / $	Long-Term	Town / School Dept (Program / Regulation)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 3: Circulation

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					Priority / Cost	Time-frame	Respons-ibility (Type)
Goal C-1: Provide a safe and well-maintained transportation system throughout town.									
A. Undertake design and work to secure funding to improve high priority intersections and streets with a high level of safety incidents (see list)			◐				Medium Priority / $$	Mid-Term	Town Manager (Program)
B. Pursue improvement concepts for additional high volume or high incident intersections as identified in local or regional traffic studies			◐				Medium Priority / $	Mid-Term	Town Manager (Policy)
C. Establish funding for an ongoing annual program to perform repairs and upgrades to existing local roadways and sidewalks, including snow removal.			●				Medium Priority / $$	Mid-Term	Council (Policy, Capital)
D. Implement Safe Route to School recommendations including: improve Primrose parking/drop-off circulation; install flashing lights at Middle Highway/Old County Road; and make intersection, sidewalk and crosswalk improvements around			●				High Priority / No Cost (grant)	Short-Term	Planning Board (Program / Regulation)
E. Install and maintain new sidewalks at identified high priority locations as shown on Map C-4.			●				Medium Priority / $ [In CIP]	Mid-Term	Council / Planning Board (Program / Regulation)
F. Advocate to advance statewide priority of repaving for Nayatt Road and to include future repaving and reconstruction of Washington Road.			○				Medium Priority / $	Mid-Term	Planning Board (Program / Regulation)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 3: Circulation (Continued)

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					Priority / Cost	Time-frame	Respons-ibility (Type)
Goal C-2: Provide a balanced multi-modal transportation system throughout the town									
A. Install wayfinding signage directing pedestrians and bicyclists from bike path to local destinations (see also Economic Development Goal ED-2, Action D).		○	●				High Priority / $$ [In CIP]	Short-Term	Town Manager (Capital)
B. Create a Barrington Bicycle and Pedestrian Committee to map preferred in-street lanes and off-road bike routes and assess sidewalk needs as a broader bikeway and sidewalk system			●				High Priority / $	Short-Term	Town Council (Policy)
C. Amend Zoning and Subdivision standards to require new sidewalks and bike racks in new non-residential projects			●				High Priority / No Cost	Short-Term	Council / Planning Board (Regulation)
D. Revise Land Development & Subdivision Regs to require new non-residential/mixed-use projects to include bike facilities if within half-mile of bike path / designated route			●				High Priority / No Cost	Short-Term	Planning Board (Regulation)
E. Look for opportunities to accommodate additional park & ride capacity or for joint utilization of parking lots near bus stops preferably focusing on Route 114			●				Medium Priority / $	Ongo-ing	Council / Planning Board (Program / Regulation)
F. Encourage RIPTA to reinstate route to serve high density Bay Spring area (with senior and affordable housing) and/or encourage extension of Riverside service to the Barrington Village Center via Maple Avenue or Lincoln Avenue.	○		●				Medium Priority / No Cost	Mid-Term	Planning Board (Program / Regulation)
G. Work with State to provide safe access to bus stops on Route 114 north of White Church bridge.			●				Medium Priority / No Cost	Mid-Term	Planning Board (Program / Regulation)
H. Develop a "complete streets" policy for Council approval, encouraging a local street network that safely accommodates automobile, bicycle and pedestrian activity.			●	●			High Priority / $	Short-Term	Planning Board (Policy)

*Key — Significance: Implementation of Major Themes: ● High ● Medium ○ Low

Table 3: Circulation (Continued)

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					Priority / Cost	Time-frame	Respons-ibility (Type)
Goal C-3: Relieve growing traffic congestion on County Road/Route 114 in order to enhance the vitality and attractiveness of downtown Barrington									
A. Actively participate in the State's East Bay transportation study; pursue funding and implementation of recommendations			◐				High Priority / No Cost	Short-Term	Town Manager (Capital)
B. Direct Town Manager to pursue local vehicular connection across the Bike Path at the Barrington Shopping Center, as illustrated in the Village Center Connectivity Plan			●				Medium Priority / $$ to $$$	Mid--Term	Town Manager (Policy, Capital)
C. Request state to provide a left turn-lane onto Lincoln Avenue from Route 114 NB.			○				High Priority / No Cost	Short-Term	Town Manager (Policy)
D. Develop zoning and land development standards requiring internal connections between shopping areas to minimize curb cuts.			◐				High Priority / No Cost	Short-Term	Planning Board (Regulation)
E. Meet with RIPTA to identify low usage bus stops on County Road for consolidation, and make the consolidated stops more prominent with shelters, in order to improve the efficiency of bus service and help alleviate traffic			◐				Medium Priority / No Cost	Long-Term	Town Manager (Policy)
F. Amend Subdivision & Land Development regulations to require developers to pay Town a project review fee sufficient to fund a traffic study on behalf of the Planning Board, for projects that require more than 20 off-			○				Medium Priority / No Cost	Mid-Term	Planning Board (Program / Regulation)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 4: Community Services & Facilities

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal CSF-1: Maintain high quality public facilities and services to meet the evolving needs of our residents of all ages.									
A. Initiate and complete design of a new Middle School, through a process that engages the public. Emphasize energy efficiency and sustainable design.				●			High Priority / $$$ [In CIP]	Short-Term	School Dept. (Capital, Policy)
B. Identify and secure available state and federal funding to support Middle School upgrades and for Stage II facility improvements as identified by the School Department.				○			High Priority / $$$$ [In CIP]	Mid--Term	School Dept. (Policy)
C. Provide adequate capital funding through the sewer enterprise fund to provide financing to maintain and improve wastewater infrastructure. Investigate potential for establishing a capital reserve fund for other public works maintenance needs (sidewalks, stormwater, etc.)						●	High Priority / $$ to $$$$ [In CIP]	Short-Term	Town Manager (Policy, Capital)
D. Incorporate best management practices, where feasible, by retrofitting outdated drainage facilities within municipal and school parking lots and local streets, to limit stormwater runoff and enhance water quality. Develop watershed plans as needed to prioritize projects.						●	High Priority / $$	Short-Term	DPW (Policy)
E. Continue to develop GIS data and provide necessary software and technology to allow Public Works to monitor the wastewater infrastructure to avoid disruptive failures, as well as assist with maintenance of stormwater facilities, to include information on maintenance responsibilities.						○	Medium Priority / $	Mid-Term	DPW (Policy, Capital)
F. Evaluate the Harbormaster's dock at Police Cove and the public dock at Walker Farm to determine whether it needs to be upgraded or replaced.							Medium Priority / No Cost to $$ [In CIP]	Short-Term	Town Manager (Policy / Capital)

*Key — Significance: Implementation of Major Themes: ● High ● Medium ○ Low

Table 4: Community Services & Facilities (Continued)

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal CSF-2: Anticipate long-term community needs, and advance facility expansion and enhancement efforts and additional services as needed to meet future demand.									
A. Support development of alternative water supply for BCWA water supply independent of East Bay Pipeline.						●	High Priority / $$$$	Short-Term	BCWA (Program, Capital)
B. Promote water conservation practices to include: • Policy for Town, School properties to reduce water usage through water conservation practices and use of xeriscaping. • Consider program to offer rain barrels at reduced cost to residents and businesses. • Work with area farms that lease public or Land Trust property to develop and implement water use conservation plans.				◐		◐	Medium Priority / No Cost to $	Short– to Mid-Term	Town, BCWA (Program, Policy)
C. Amend the Barrington Emergency Operations Plan to establish a water emergency response plan outlining responsibilities in response to water emergencies.						◐	High Priority / No Cost	Short-Term	Town (Policy)
B. Complete the Library 5-year master plan.							High Priority / $$$$ [In CIP]	Mid--Term	Library Board (Capital)
C. Re-evaluate recommendations for new community/senior center, including whether to renovate the existing senior center or to construct a new facility.	●						High Priority / $	Short-Term	Town Manager (Policy, Program)
D. Determine impact of declining school enrollment on school facility needs, as part of the development of the capital improvement program.							High Priority / $	Mid-Term	School Dept. (Program)
E. Coordinate with abutting communities as part of the annual review of Comprehensive Plan implementation, on land use, transportation, open space, natural hazards and other multijurisdictional planning issues.			○			○	Medium Priority / No Cost	Short-Term	Town Manager (Policy, Capital)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 4: Community Services & Facilities (Continued)

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					Priority / Cost	Time-frame	Respons-ibility (Type)
F. Work with State, in coordination with East Providence, to amend State's Urban Services Boundary as shown on Maps LU-6 and LU-7 [see Land Use element]	See Land Use Implementation: Table 9 - Goal LU-1, Action J								
G. Evaluate and rezone, as appropriate, public and quasi-public properties in transition, including the Town-owned land formerly occupied by "The Place," the Bristol County Water Authority facility on Nayatt Road, and the Hampden Meadows Volunteer Fire Department station.	See Land Use Implementation: Table 9 - Goal LU-1, Action K								
Goal CSF-3: Limit the community's environmental impact through reductions in solid waste disposal and other sustainable activities.									
A. Periodically evaluate total solid waste amounts and recycling rates for Barrington to determine whether additional measures are needed to meet the Town's goals.				●			High Priority / No Cost to $	Ongo-ing	DPW (Policy)
B. Expand efforts to encourage recycling at Town and School facilities.				●			High Priority / $	Short--Term	DPW, School Dept. (Policy)
C. Prepare for the new state law on composting. Assist commercial owners with compliance by 2016.				◐			High Priority / No Cost	Short-Term	DPW, Town Manager (Policy)
D. Develop a pilot program to encourage residential composting to limit solid waste (as this may be future state requirement)				◐			Medium Priority / $	Mid-Term	DPW (Program)
E. Evaluate programs or incentives (such as a "no-bin, no barrel" policy) and implement if feasible and cost-effective.				○			Medium Priority / No Cost	Mid-Term	Town Council, DPW (Policy)
F. Assign responsibility for sustainability efforts to the Conservation Commission or a new committee with the charge to encourage/educate residents about sustainability, conservation, etc.				●			Medium Priority / No Cost	Short-Term	Town Council (Policy)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 5: Natural & Cultural Resources

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal NCR-1: Protect important natural areas, including wetlands, wildlife habitats, groundwater aquifers, and salt marshes, especially around Hundred Acre Cove, Barrington and Palmer Rivers. Objective NCR-1.1: Establish an official open space protection program by 2017.									
A. Evaluate proposed protections of open space parcels, through acquisition, easements or other techniques, and identify priority areas based on Policy NCR-1.1.1						●	High Priority / $ to $$$$	Ongo-ing	Conserv. Comm. (Policy, Capital)
B. Establish a procedure for reviewing potential open space acquisitions that includes key stakeholders. Consider establishing Open Space Committee.						◐	High Priority / No Cost	Short-Term	Town Council (Policy)
C. Seek grants and other funding sources to protect open space, including habitat areas and farmland, through acquisition and conservation easements.						◐	High Priority / No Cost to $$$	Ongo-ing	Town Planner (Policy)
D. Establish deed restrictions to ensure high priority Town-owned conservation parcels, as determined based on Policy NCR-1.1.1, cannot be sold or otherwise disposed of.						◐	Low Pri-ority / No Cost to $	Long-Term	Town Manager, Council (Policy)
E. Rezone properties with conservation values, consistent with the Future Land Use Map (see **Maps LU-6 and LU-7**).	See Land Use Implementation: Table 9- Goal LU-1, Action L								

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 5: Natural & Cultural Resources (Continued)

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal NCR-1: Protect important natural areas, including wetlands, wildlife habitats, groundwater aquifers, and salt marshes, especially around Hundred Acre Cove, Barrington and Palmer Rivers. Objective NCR-1.2: By 2017, amend local regulations and procedures to improve protections of natural resources.									
A. Create an administrative mechanism to certify that projects comply with approved zoning action regarding encroachments in the Town's 100-foot wetland buffer				●		●	High Priority / No Cost	Short-Term	Town Council, Manager (Policy)
B. Create an electronic inventory of all properties granted variances and conditions of plan approval for construction within the 100-foot setback that specifies the approval and conditions of that approval.							High Priority / $	Mid--Term	Town Planner, Building Official (Policy)
C. Secure funding to research, inventory, and digitally map wetlands in town to improve the accuracy of the locations of wetland edges.						●	High Priority / $ to $$	Short-Term	Town Planner (Program)
D. Amend Zoning Ordinance and Land Development & Subdivision Regulations to establish review procedures to ensure development/ subdivision proposals provide dedicated open space consistent with the Town's open space acquisition criteria.			●			●	High Priority / No Cost	Mid-Term	Town Council, Planning Board (Regulation)
E. Amend drainage and site plan design standards in the Land Development & Subdivision Regulations to encourage low-impact development techniques.						●	Medium Priority / No Cost	Short-Term	Planning Board (Regulation)
F. Eliminate the required advisory review of projects proposed within the Groundwater Overlay District.							Medium Priority / No Cost	Short-Term	Town Council, Planning Board (Regulation)

*Key — Significance: Implementation of Major Themes: ● High ● Medium ○ Low

Table 5: Natural & Cultural Resources (Continued)

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					**Priority / Cost**	**Time-frame**	**Respons-ibility (Type)**
Goal NCR-2: Effectively manage open space properties to maintain values of the Town's critical cultural and natural resources.									
A. Implement management plans developed for priority sites (as listed)						●	High Priority / $	Short-Term	Town, BCLT (Policy)
B. Complete management plans for other public open space spaces (as listed).						●	Medium Priority / $	Mid--Term	Cons. Comm., BCLT (Program, Policy)
C. Work with owners of private conservation parcels to develop new or coordinate implementation of existing management plans that are consistent with those adopted for public conservation areas.						○	Low Priority / $	Long-Term	Town, BCLT (Policy)
D. Create a process for consistent oversight of management plans for individual sites. Annually review status of management plan implementation for all conservation areas.						○	Medium Priority / $	Mid-Term	Town Council, Cons. Comm. (Program)
E. Work with the Land Trust and other stakeholders to establish the proposed Sowams National Heritage District					●		Medium Priority / $	Mid-Term	Town, BCLT, Other Stakeholders (Policy)
F. Work to eliminate encroachments into open space properties by abutting property owners.							Medium Priority / $$	Short-Term	Town Manager (Policy, Capital)
G. Conduct a study of the habitat of the Diamondback Terrapin to determine whether the mapped Habitat Area on NCR-1 should be expanded.				○					

*Key — Significance: Implementation of Major Themes: ● High ● Medium ○ Low

Table 5: Natural & Cultural Resources (Continued)

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					Priority / Cost	Time-frame	Respons-ibility (Type)
Goal NCR-3: Work to protect and restore water quality, including in Hundred Acre Cove, Brickyard Pond, Prince's Pond, and Annawamscutt Creek.									
A. Complete a watershed study within priority areas, including Town Beach and Brickyard Pond, to identify and prioritize future storm-water / water quality improvement projects, with an emphasis on "green infrastructure"				●		●	High Priority / $ to $$	Short-Term	DPW (Program)
B. Prioritize and phase in implementation of watershed study recommendations, emphasizing the most cost-effective measures.				●		●	High Priority / $$ to $$$	Short- to Long -Term	DPW (Capital)
C. Formalize a partnership (or consortium) with neighboring communities to adopt measures to improve water quality in Hundred Acre Cove.						○	Medium Priority / No Cost	Mid-Term	Town Manager (Policy
D. Develop an education/public outreach program on everyday uses and activities that contribute to the degradation of the water quality of local ponds and streams.						○	Medium Priority / $	Mid-Term	DPW, Town Planner (Program)

*Key — Significance: Implementation of Major Themes: ● High ● Medium ○ Low

Table 5: Natural & Cultural Resources (Continued)

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					Priority / Cost	Time-frame	Respons-ibility (Type)
Goal NCR-4: Protect critical historic properties and areas of historic significance.									
A. Develop incentives for the restoration of Belton Court that are economically viable, and seek opportunities for gaining public access to building and grounds. (Incentives are listed in Appendix II)					●		High Priority / No Cost	Short-Term	Town Council, Planning Board (Regulation)
B. Explore creation of a Nockum Hill National Historic Landmark (NHL) Site.					●		High Priority / $	Short-- to Mid-Term	Pres. Society (Policy)
C. Work with stakeholders to develop a management plan for the Civic Center National Register District.					●		Medium Priority / $	Mid-Term	Town Manager, Pres. Society (Policy)
D. Apply for designation of the Bay Spring Community Center on the National Register of Historic Places.					○		Medium Priority / $	Mid-Term	Town Planner., Pres. Society (Policy)
E. Work with the Preservation Society for expansion of existing historic districts and for listing of additional residential districts in the State and National Registers					◐		High Priority / $	Mid-Term	Pres. Society (Policy)
F. Appoint a committee to study establishment of a Voluntary Historic District Commission.					◐		Medium Priority / No Cost	Mid--Term	Town Council (Policy)
G. Include Sowams Woods history on historic signs along the Bike Path.					○		Medium Priority / No Cost to $	Short-Term	Pres. Society, Town Planner (Policy)
H. Adopt a stop-work ordinance which would allow a reasonable grace period for historic preservation consultation when a significant historic property is threatened with whole or partial destruction.					◐		Medium Priority / $	Mid-Term	Town Council (Regulation)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 5: Natural & Cultural Resources (Continued)

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal NCR-5: Protect the Town's scenic resources.									
A. Adopt scenic area registry and incorporate protections within Planning Board review process.					●		Medium Priority / No Cost	Short– to Mid-Term	Planning Board (Program, Regulation)
B. Identify smaller scenic areas that are important at local level, including ends of public rights of way providing views to the water.					◐		Medium Priority / $	Mid-Term	Planning Board (Program)
C. Establish viewshed easements around particularly important sites.					◐		High Priority / $	Short-Term	Town Manager (Policy)
D. Convert streetlights/parking lot lighting to cut-off ("dark sky") fixtures (see also Energy Goal E-1).					○		Medium Priority / $$ [In CIP]	Mid-Term	DPW (Policy)
E. Set standards for outdoor lighting to limit light pollution in scenic areas; adopt Town ordinance to require cut-off lighting on residential properties.					○		Medium Priority / $	Mid-Term	Planning Board (Regulation)
F. Adopt zoning standards for review of impacts of proposed cell towers on scenic resources.					●		High Priority / $	Mid--Term	Council, Planning Board (Regulation)
Goal NCR-6. Preserve the character of rural areas of Barrington.									
A. Enact protections through zoning and other regulations to limit impacts of development on the rural character of the George Street area.	See Land Use Implementation: Table 9- Goal LU-1, Action I								
B. Evaluate other potential options to protect agricultural lands, such as conservation easements or purchase of development rights.		◐			●		High Priority / $ to $$$	Short– to Long-Term	Town Manager (Policy)
C. Consider including conditions (see list) when providing option of leasing Town properties for farming:.				○		○	High Priority / $	Short-Term	Town Council (Policy)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 6: Outdoor Recreation

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					**Priority / Cost**	**Time-frame**	**Respons-ibility (Type)**
Goal OR-1: Meet the community's evolving recreational needs, both passive and active, by providing high quality multiple-use outdoor recreation facilities benefiting people of all ages.									
A. Develop park master plans in order to establish capital improvement priorities. (Priority sites listed)				●			Medium Priority / $ to $$	Mid-Term	Park & Rec. (Program)
B. Include park improvements in long-term capital budget planning based on master plan priorities.				●			High Priority / $$ to $$$$	Short to Long-Term	Park & Rec. (Capital)
C. Continue lease with State for use of facilities at Haines Park within town.				●			High Priority / $	Short to Long-Term	Town Council, DPW (Policy)
D. Pursue the installation of synthetic turf at Victory Field, subject to an evaluation of the costs and benefits compared to natural turf.				○			High Priority / $$$$	Short-Term	Park & Rec. (Policy, Capital)
E. Require public outdoor recreational space within "Senior Residential Village" and "Village" sites, per Appendix II.	○			●			High Priority / No Cost	Short--Term	Council, Planning Board (Regulation)

*Key — Significance: Implementation of Major Themes: ● High ● Medium ○ Low

Table 6: Outdoor Recreation (Continued)

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					**Priority / Cost**	**Time-frame**	**Respons-ibility (Type)**
Goal OR-2: Create an "emerald chain" of parks by establishing and improving linkages between and within recreational areas throughout town, including facilities at schools...									
A. Generate a plan for developing trails and other connections between recreational areas in coordination with open space planning			●				High Priority / $ [In CIP]	Short-Term	Park & Rec., Town Planner (Program)
B. Create standards for trail markers, park signage and other improvements are needed to create a consistent, high-quality system of open space, trails and passive parks throughout town.			◐				High Priority / $	Short to Long-Term	Park & Rec., Town Planner (Policy)
C. Establish a sustainable funding program to continue with the trail improvement program and assist with acquisition.			○			○	High Priority / $	Short-Term	Town Manager (Policy)
D. Complete trail improvements, starting with Veterans Park, including updating trailblazing signs, and adding informational signage and maps. Other priority sites include: the former Vitullo Farm site/Divine Vargus conservation	○		●				High Priority / $ to $$	Short to Long-Term	Town Planner (Policy)
E. Seek to acquire property or easements to extend trails at Veterans Park and in the Hampden Meadows Greenbelt.			◐				Medium Priority / $$ to $$$$	Mid--Term	Council, Manager (Capital)
F. Establish South Lake Drive between Washington Road and North Lake Drive as a multimodal facility providing a safe walking/biking area within the right of way while also maintaining vehicular traffic.			◐				Medium Priority / $$$	Mid--Term	Manager, DPW (Capital)
G. Require trail connections when key sites are developed, including the O'Bannon Mill site and the former Zion Bible Institute campus.	○		◐				High Priority / No Cost	Short to Long-Term	Planning Board (Regulation)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 6: Outdoor Recreation (Continued)

	Significance - Major Themes*								
Goals & Actions	55+	SHOPS					Priority / Cost	Time-frame	Respons-ibility (Type)
Goal OR-3: Provide access to the shore through public recreational sites and public rights of way.									
A. Work with East Bay communities on locating and mapping water trails. In Barrington, the mapping should show access points, destination areas and significant features along the trail route within the Barrington River and Hundred Acre Cove, and the Providence River / Narragansett Bay / Bullock Cove.			●				Medium Priority / $	Short-Term	Town Planner (Policy)
B. Provide amenities at the Police Cove park site to create a Blueway Trail destination for paddlers – including construction of a transient dock and completion of the planned boat ramp reconstruction.			●				Medium Priority / $$ [In CIP]	Mid--Term	Town Planner (Policy)
C. Assess public access and evaluate maintenance needs at all public rights of way to the water. The Harbor Commission should work to ensure the rights of way are clearly marked and safe for pedestrians; consider installation of granite markers. Surveys might be needed to identify and eliminate encroachments.			●				Medium Priority / $ to $$	Mid-Term	Harbor Comm. (Policy)

*Key — Significance: Implementation of Major Themes: ● High ● Medium ○ Low

Table 7: Energy

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal E-1: Make prudent investments in strategies to reduce energy usage and costs.									
A. Complete energy efficiency upgrades and renewable energy installations at municipal and school buildings.				●			High Priority / $ to $$$ [In CIP]	Short to Long-Term	Town Manager, DPW (Policy, Capital)
B. Engage a consultant to develop a town-wide renewable energy plan, to include an evaluation of municipal, school sites.				●			High Priority / $	Short-Term	Energy Comm. (Program)
C. Strongly consider an investment in geothermal technology at new facilities, such as a new Middle School.				◐			Medium Priority / $$ to $$$	Short to Long-Term	Schools, Manager (Policy, Program)
D. Pursue acquisition of streetlights, to include a maintenance program that saves money and does not impact the Public Works staff.				◐			High Priority / $$ to $$$ [In CIP]	Short-Term	Manager (Capital)
E. Utilize savings from streetlight acquisition to convert streetlights, including parking lot lighting, to LED and cut-off fixtures.				◐			Medium Priority / $$	Mid-Term	Manager, Energy Comm. (Policy)
F. Develop and implement plan to capitalize on the potential of LEDs, which can be programmed as well as controlled remotely.				○			High Priority / $$	Mid-Term	Manager (Policy)
G. Explore potential regional energy projects such as energy efficiency service contracts and streetlight acquisition.				○			Low Priority / $	Long-Term	Town Manager (Policy)
H. Complete installation of computer power management tools at municipal, school buildings.				◐			High Priority / $$	Short-Term	Manager, DPW (Policy)
I. Install Town-wide energy management system that is compatible with school system's energy management software, if feasible.				◐			High Priority / $$	Short-Term	Manager, DPW (Policy)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 7: Energy (Continued)

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal E-2: Improve vehicle fuel efficiency of municipal fleet vehicles.									
A. Establish a Green Fleets Program for municipal operations, which could include the following: • An emphasis on fuel economy standards in bidding replacement vehicles, where feasible. • A requirement to meet certain MPG standards by class • An evaluation of the feasibility of electric or hybrid vehicles for certain municipal purposes. • A "no idling" policy for non-emergency vehicles				●			High Priority / $ to $$	Short-Term	Council, Manager (Policy)
Goal E-3: Provide resources and set policies to achieve the Town's energy goals.									
A. Establish a Revolving Energy Fund to create a more sustainable funding stream for energy efficiency and clean energy programs.				●			High Priority / $	Short-Term	Council, Manager (Policy)
B. Capitalize on State, Federal and Utility sponsored incentives and grants to help fund energy efficiency and renewable energy projects.				◐			High Priority / $ to $$	Short to Long-Term	Town Planner, DPW (Policy)
C. Adopt Environmentally Preferable Purchasing (EPP) Program policies.				◐			Medium Priority / $	Long-Term	Town Manager (Policy, Program)
D. Enact a policy requiring meetings at least annually of the school and municipal department heads to report on their efforts to meet the Town's energy goals				○			High Priority / No Cost	Short to Long-Term	Manager, School Dept. (Policy)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 7: Energy (Continued)

	Significance - Major Themes*								
Goals & Actions	55+						**Priority / Cost**	**Time-frame**	**Respons-ibility (Type)**
Goal E-4: Promote energy efficiency and renewable energy installations throughout the broader community.									
A. Establish a Property Assessed Clean Energy (PACE) Financing Program.				◐			Medium Priority / $ to $$	Short-Term	Council, Manager (Policy)
B. Implement a "Green Business" program where local businesses receive a "green" designation based on achieving a set of identified efficiency/sustainability criteria.				◐			High Priority / $	Short-Term	Energy Comm. (Policy)
C. Consider an annual workshop to inform citizens about alternative energy opportunities and available resources to assist with conversion.				◐			High Priority / No Cost	Short to Long-Term	Energy Comm. (Policy)
D. Provide annual reports on Barrington's progress toward achieving energy-reduction targets, as well as energy projects completed by the Town, School Department and private property owners.				○			High Priority / $	Short to Long-Term	Energy Comm. (Policy)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 8: Natural Hazards

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal NH-1: Reduce current and future risk of natural hazards and sea level rise to the built environment.									
A. Complete assessment of potential impacts, including physical and financial, of projected SLR on publicly and privately owned buildings and sites, roads, storm-water systems, sewer systems and other utilities.						●	High Priority / $ to $$ [In CIP]	Short-Term	Town Planner (Program)
B. Include in CIP critical projects required to mitigate threats to infrastructure and properties.						●	High Priority / $ to $$$$	Mid--Term	Council (Capital)
C. Consider requiring smaller lot sizes, such as cluster subdivision design, to ensure development is outside existing or projected floodplain.	See Land Use Implementation: Table 9- Goal LU-1, Action M								
D. Provide support for property owners to help take advantage of funding opportunities that assist with covering the cost of mitigating risk such as elevating or retrofitting existing structures located in designated flood zones, or acquisition and relocation of structures outside high risk zones.						◐	High Priority / No Cost	Mid-Term	Town Planner (Policy)
E. Publish illustrated design guidelines to provide ideas for designing building elevations compatible with the surrounding neighborhood.					●	○	High Priority / $	Short-Term	Town Planner (Program)
F. Adopt LID standards to reduce the amount of impervious coverage.				◐		◐	High Priority / No Cost	Short--Term	Planning Board (Regulation)
G. Provide measures to improve stormwater retention in the planning/design of park improvements, schools and other public buildings.						◐	High Priority / $$ to $$$	Short-Term	DPW, Town Planner (Capital)
H. Evaluate restrictions on changes to grades around buildings within 100-year flood zone.						○	Medium Priority / No Cost	Mid-Term	Town Planner (Policy)
I. Improve GIS capabilities to support assessment, planning activities.						◐	High Priority / $	Short to Long-Term	Town Planner (Policy)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 8: Natural Hazards (Continued)

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal NH-2: Preserve and enhance the capacity of the natural environment to improve Barrington's resilience against impacts of natural hazards.									
A. Prioritize and implement coastal adaptation projects, working with Save the Bay, the State and other stakeholders, to reduce flood risk and the potential damage to vulnerable infrastructure, allow the expansion of wetlands and other purposes.				●		●	High Priority / $ to $$$$	Short to Long-Term	DPW, Town Planner (Program, Capital)
B. Implement a tree management program to reduce risk to property due to winds, heavy snow/ice or other natural hazard impacts.						◐	Medium Priority / $	Mid--Term	Library DPW ((Policy)
C. Complete hydrology study that includes: inventory of ponds on private and public property; assessment of streams and condition of and impacts of dams; prioritization of projects needed to maintain/improve water flow.						●	High Priority / $ to $$	Short-Term	Town Planner (Program)
D. Develop plan to allow restoration of natural areas at Walker Farm.						◐	Medium Priority / $	Mid-Term	DPW, Con. Comm. (Program)
E. Work with the local land trust and other stakeholders to identify and protect from development, including low-lying land vulnerable to impacts from flooding and sea level rise, areas adjacent to coastal wetlands susceptible increased inundation due to sea level rise.	See Implementation Table 5—Goal NCR-1, Action "A"								

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 8: Natural Hazards (Continued)

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal NH-3: Reduce flood risk and the cost of flood insurance within Barrington.									
A. Complete steps required to enroll in the National Flood Insurance Program Community Rating System, with a minimum starting CRS score of "9".						●	High Priority / $ to $$	Short to Long Term	Town Manager (Program, Capital)
B. Engage a consultant or provide staff training for a certified floodplain manager to coordinate implementation of CRS activities and implementation of the Town's Hazard Mitigation Plan.						●	High Priority / $ to $$	Short-Term	Town Planner (Policy)
C. Complete the required Hazard Mitigation Plan five-year update that addresses effects of climate change and includes activities that would achieve a CRS goal of "7" by 2020.						●	High Priority / $ to $$ [In CIP]	Short-Term	Town Planner (Policy)
D. Establish an administrative team to meet quarterly to review progress on implementation of the Hazard Mitigation Plan and activities resulting in CRS credit.						●	High Priority / No Cost	Short-Term	Town Manager (Policy)
Goal NH-4: Improve the community's awareness of threats to minimize risk to the public due to natural hazards.									
A. Use informational signs at areas of historic flooding showing the 1938 surge elevations along the bay and rivers and update as necessary based on March 2010 flooding.						◐	Medium Priority / $	Mid-Term	Town Planner (Policy)
B. Conduct community outreach, including public forums and publication/posting of information at Town facilities and the website, on natural hazard mitigation initiatives, preparedness and response.						●	High Priority / No Cost	Short-Term	Town Manager (Policy)
C. Establish a process to directly contact special populations such as those who are particularly vulnerable, due to location or age and infirmity, to ensure their understanding of procedures immediately before and after an event.						●	High Priority / No Cost	Short-Term	Town Manager (Policy)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 9: Land Use

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal LU-1: Preserve the predominant residential character, while providing open space and limited commercial, industrial and institutional land uses to serve the needs of the community.									
Housing & Neighborhoods									
A. Establish Senior Residential Village zone for former Zion Bible Institute campus upon application and findings of consistency with Developer Guidance as outlined in Appendix II. [Goal HN-1, Action A]	●		◐		◐	○	High Priority / No Cost	Short-Term [See Table 9A]	Council/ Planning Board (Regulation)
B. Establish new zoning at the Allin's Cove and Former O'Bannon Mill Sites, as identified in the 2018 Bay Spring Corridor Zoning Study, consistent with the Appendix IIA of the Comprehensive Community Plan (as amended, 2019).	●	○	○		◐	○	High Priority / No Cost	Short-Term [See Table 9A]	Council/ Planning Board (Regulation)
~~B.~~ C. Consider new residential zones to preserve community character in areas where the dimensional regulations such as minimum lot sizes are inconsistent with the existing built environment. [Goal HN-2, Action E]					◐		Low Priority / No Cost	Long-Term	Council/ Planning Board (Regulation)
~~C.~~ D. Revise Zoning Ordinance to establish one-step density increase for comprehensive permit applications. [Goal HN-3, Objective 3.2, Action A]					◐		Medium Priority / No Cost	Short-Term	Council/ Planning Board (Regulation)
Economic Development									
D. Allow limited non-residential development in Senior Residential Village [Goal ED-3, Action A]	◐	○					Medium Priority / No Cost	Short-Term	Council/ Planning Board (Regulation)
E. Amend zoning to allow bed and breakfast inns in suitable locations with appropriate standards to protect neighborhoods from adverse impacts. [Goal ED-3, Action C]		◐					Medium Priority / No Cost	Short-Term	Council/ Planning Board (Regulation)
F. Create new zoning district, modifying the Neigh. Business or Business zone, to promote a more cohesive retail environment in the Village Center. [Goal ED-5, Action A]		●			○		Medium Priority / $	Mid-Term	Planning Board (Program)

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 9: Land Use (Continued)

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal LU-1 (cont.): Preserve the predominant residential character, while providing open space and limited commercial, industrial and institutional land uses to serve the needs of the community.									
Economic Development (continued)									
G. Evaluate amending zoning of areas where established uses, such as commercial uses within R10 sections of Bay Spring Ave.—are noncon-forming. Evaluate future zoning of remaining LM-zoned land within town. [Goal ED-5, Action B]		◐				○	Medium Priority / $	Mid-Term	Council/ Planning Board (Program, Regulation)
H. Evaluate whether revisions to restrictions in the Zoning Ordinance are needed related to agricultural uses, to include uses such as farms, farm stands and farmer's markets. [Goal ED-6, Action A]		◐		○			High Priority / No Cost	Short-Term [See Table 9A]	Council/ Planning Board (Regulation)
I. Amend or establish new zoning district for the George Street area to preserve rural character / promote farming. [Goal ED-6, Action C] [See also Goal NCR-6, Action A]		◐		○	●		High Priority / No Cost	Short-Term	Council/ Planning Board (Regulation)
Community Services & Facilities									
J. Work with State to amend State's Urban Services Boundary as shown on Maps LU-6 and LU-7. [Goal CSF -2, Action F]				◐	●		High Priority / No Cost	Short-Term	Council/ Town Manager (Policy)
K. Consider appropriate use of the former site of "The Place" on Mid-dle Highway, the Hampden Mead-ows Volunteer Fire Department property on Sowams Road and the Bristol County Water Authority fa-cility on Nayatt Road; rezone as nec-essary. [Goal CSF-2, Action G]							Medium Priority / No Cost	Short-Term	Council/ Planning Board (Policy, Regulation)

Continued next page

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

Table 9: Land Use (Continued)

Goals & Actions	Significance - Major Themes*						Priority / Cost	Time-frame	Respons-ibility (Type)
	55+	SHOPS							
Goal LU-1 (cont.): Preserve the predominant residential character, while providing open space and limited commercial, industrial and institutional land uses to serve the needs of the community.									
Natural & Cultural Resources									
L. Rezone land abutting "Bosworth Street Extension" paper street to a zone consistent with the FLUM designation (see also Map LU-7). [Goal NCR-1, Objective NCR-1.1, Action E]						○	Medium Priority / No Cost	Short-Term [See Table 9A]	Council/ Planning Board (Regulation)
Natural Hazards									
M. Consider requiring smaller lot sizes, such as through a cluster subdivision design, to ensure development is outside the existing or projected floodplain, reducing potential impacts of rising sea levels. [Goal NH-1, Action C]						●	High Priority / No Cost	Short-Term	Council/ Planning Board (Regulation)

Table 9A: Land Use—Zoning-Land Use Map Consistency: Schedule

Site Description (per Map LU-7)	Action	Timeframe
1. Town cemetery site	Rezone from R40-CD to OS-P	Within 12 months
2. George Street area (see also Goal LU-1, Action "I")	Rezone remaining R40-CD district to new "Agriculture" district (to be created)	Within 12 months
3. Former Zion Bible Institute site (see also Goal LU-1, Action "A")	Rezone from RE to Senior Residential Village	Subject to application by owner; anticipate within 12 months
4. Sweetbriar site	No action. Sweetbriar was approved under comprehensive permit process	No action—existing use
5. "Palmer Pointe" site	Establish new Village zone as part of Palmer Pointe review process	12 months to 2 years
6. "Business"-zoned parcel (see Goal LU-1, Action "L")	Rezone rear portion of lot from Business to Conservation	Within 12 months

*Key — Significance: Implementation of Major Themes: ● High ◐ Medium ○ Low

APPENDIX I: Affordable Housing Appendices

Appendix I describes the Town's affordable housing strategies that have or will be implemented to achieve the 10 percent affordable housing goal of the State's Low– and Moderate-Income Housing Act.

A. LMI Unit Calculations by Strategy—Summary

B: LMI Unit Calculations—Detail

C: LMI Units by Strategy and Year

D. LMI Housing— by Household and Tenure

E: Locations Where Strategies Will Be Implemented

F. Barrington's Low- and Moderate- Income Housing

A. LMI Unit Calculations by Strategy—Summary

Following are descriptions of the methodology for calculating the number of LMI units that each affordable housing strategy, proposed and adopted, is projected to produce. For additional detail see tables B-1 through B-4, C-1, D-1 and E-1 in this appendix.

1. Affordable Housing Strategy: Inclusionary Zoning (ADOPTED)

- *Reference: Zoning Ordinance Article XXVII (last amended 4/9/2007)*

The inclusionary zoning requirement applies to subdivisions and land development projects proposing three or more additional houses and/or lots. There are 2,954 buildable acres in the R10, R25 and R40 residential zones, of which 193 are undeveloped. The undeveloped land will support approximately 352 units under the current zoning requirements. To account for land required for other strategies, it assumed that 67 percent of the undeveloped buildable land remaining in the residential zones. The strategy, based on these assumptions, will provide 60 LMI units.

Projected # of LMI units created: 5 for Elderly Ownership
51 for Single Family Ownership
3 for Single Family Rental
1 for Special Needs Ownership

2. Establish zoning for Senior Residential Communities (SRC) (ADOPTED)

- *Reference: Zoning Ordinance Article XXX (adopted 2/6/2012)*

The criteria for development of senior residential communities, per Article XXX of the Zoning Ordinance, require that at least 50% of the units qualify as LMI units. As a result, the mandatory inclusionary requirements need not apply to this use. This use is specially permitted in the R10, R25, R40, NB, B and LM zoning districts. SRC's are required to consist of "cottage"-style housing, with total living area not to exceed 1,200 square feet. Other requirements include recreation and open space, buffers, off-street parking and connectivity (sidewalks/trails/etc.)

Projected # of LMI units created: 60 for Elderly Ownership
25 for Elderly Rental
5 for Special Needs Rental

3. Identify Areas That Could Support A Mix Of Housing Types (ADOPTED)

- *Reference: Zoning Ordinance Sec. 185-24.1 (adopted 2/6/2012)*

Provisions allowing for the construction of new two-family structures and the conversion of existing houses into two-family structures through the special use permit process were incorporated in the Zoning Ordinance in February 2012.

In addition to design criteria, the Zoning Ordinance establishes lot area minimums as follows: 15,000 square feet in the R10 zone; 30,000 square feet in the R25 zone, and 50,000 square feet in the R40 zone. There are a total of 82 vacant and 1,165 developed house lots within these zones that meet the minimum lot area requirement. Assuming 5 percent of vacant lots and 2.5 percent of

houses on lots with sufficient land area are converted to two-families, this strategy would generate 33 additional LMI units.

Projected # of LMI units created: 8 for Elderly Ownership
23 for Family Ownership
2 for Special Needs Ownership

4. Allow Affordable Housing Development on New Substandard Lots (ADOPTED)

- *Reference: Zoning Ordinance Sec. 185-28.1 (adopted 2/6/2012)*

This provision applies to oversized lots in the R-10, R-25, and R-40 zoning districts that have existing houses. The town's analysis of GIS parcel data found that there are more than 556 developed residential lots that exceed 175 percent of the minimum lot area, and therefore could take advantage of this provision. The town further assumes that 6 percent of property owners would take advantage of this option. This accounts for 16 units in the R-10 district, 13 units in the R-25 district and 4 units in the R-40 district. All units created under this strategy would be included as affordable housing.

Projected # of LMI units created: 4 for Elderly Ownership
4 for Family Rental
21 for Family Ownership
2 for Special Needs Ownership
2 for Special Needs Rental

5. Promote Development of LMI Units Above Commercial Uses (ADOPTED)

- *References:*
    - *Zoning Ordinance Sec. 185-5—Terms Defined (Mixed Use Commercial) (adopted 2/6/2012)*
    - *Zoning Ordinance Sec. 185-196C—Incentives-Mixed Use Commercial (adopted 2/6/2012)*

The Town revised the definition of mixed-use commercial to allow a greater percentage of residential use above the first-floor commercial space (originally the definition required commercial to be the "primary" use). Sect. 185-196 (Incentives for inclusionary zoning projects) established a bonus of 20 percent of the reduction of the minimum unit size and an allowance of 10 feet of additional height for developments subject to inclusionary zoning. The calculations for potential additional LMI units assumes 11 units will be created within mixed-use buildings built on currently vacant land in the B and NB zones, and another 22 built as part of redevelopment of sites in these zones.

Projected # of LMI units created: 10 for Elderly Ownership
1 for Elderly Ownership
17 for Family Rental
5 for Family Ownership

6. Allow Accessory Apartments (ADOPTED)

- *References:*
  - *Zoning Ordinance Sec. 185-5—Terms Defined (Accessory Apartment) (adopted 2/6/2012)*
  - *Zoning Ordinance Article XXII—Accessory Apartments(adopted 2/6/2012)*

Accessory apartments now are allowed as a special use within the NB, R10, R25 and R40 districts. Lots within the R10 zone must be at least 15,000 square feet in area. Developed house lots in these districts are as follows: 107 in the NB district (lots with existing single-family houses); 403 in the R10 district that are at least 15,000 square feet; 2,599 in the R25 district; and 274 in the R40 district. If 1% of these lots use this provision to create accessory apartments, this strategy could create up to 34 new LMI units.

Projected # of LMI units created: 14 for Elderly Rental
19 for Family Rental
1 for Special Needs Rental

7. Capture Existing "Affordable Homes"

- *Reference: Housing & Neighborhoods Element Goal 4, Objective 4.1, Policies 4.1.1 and 4.1.2 and related Actions*

This strategy will be implemented on previously developed parcels. Based on 2014 tax values, there are 383 dwelling units valued at below $210,000 in the B, NB, R10, R25 and R40 zoning districts ($210,000 is approximately the maximum price affordable to a household earning up to 80% of AMI). It is assumed that it would be feasible to capture more existing affordable units in areas that have two– and three-family units, as well as single-family houses on smaller lots. These districts, the B, NB, and R10 zones, have 359 units with assessed values at less than $210,000, of which it is assumed that 84 of these units could be captured utilizing incentives or acquisition through the Housing Trust or other mechanism. Just five houses in the R25 zone (out of 23 that are valued at less than $210,000) are assumed to be captured through this program. No houses in the R25-C, R40 or R40-CD zones are likely to be qualified as LMI houses due to the fact that just one out of 294 units are valued at below $210,000. Overall, an estimated 89 LMI units are estimated to be generated through this strategy.

Projected # of LMI units created: 18 for Family Rental
72 for Family Ownership
2 for Special Needs Rental

8. Strongly Negotiate New Comprehensive Permits

- *Reference: Housing & Neighborhoods Element Goal 4, Objective 4.2, Policy 4.2.3*

Policy 4.2.3 establishes a density bonus granting a one-step increase in permitted density for comprehensive permit applications proposing at least 50% LMI units. Projects proposing fewer than 50% LMI would receive the 20% density bonus available through inclusionary zoning. The calculations for LMI units generated through the comprehensive permit option are based on projects that receive the one-step density increase. Comprehensive permit projects subject to the inclusionary zoning density

bonus are counted as units produced under the inclusionary zoning option. A total of 78 additional units are project to be generated under this option, in addition to the 62 comprehensive permit units approved to date (including 3 vacant single-family lots at Sweetbriar). The total potential number of new units is based on applying the one-step density increase to a percentage of buildable acreage within the R10, R25 and R40 zoning districts (see Table B-1(H) in this appendix) and multiplying that figure by 75 percent. This is based on the assumption that there would be a range of comprehensive permit proposals with between 50 percent to 100 percent of the units qualifying as LMI housing.

Projected # of LMI units created*: 8 for Elderly Rental
32 for Elderly Ownership
83 for Family Rental
11 for Family Ownership
5 for Special Needs Ownership
1 for Special Needs Rental

*These numbers include existing built units

9. Establish "village" zoning permitting higher density on sites identified on the Future Land Use Map, based on the Town's evaluation of remaining developable parcels

- *References:*
  - *Housing & Neighborhoods Element Goal 1, Objective 1.1, Policy 1.1.1 and Action 1*
  - *Developer Guidance, Appendix III*

Two sites have been identified, through a 2008 Housing Land Use Study, as candidates for future village development: the 40-acre Zion Bible Institute, and the Sowams Nursery property on the east side of Sowams Road. Existing conditions—including constraints such as wetlands and flood-plain—have been evaluated to determine the buildable areas at the sites and proposed an arrangement of housing types and densities. Per Appendix II of this Comprehensive Plan, the Zion site could support 200 or more units, depending on consistency with the developer guidance, including achieving performance standards. The Developer Guidance requires at least 25% of the total units to qualify as LMI units. At Zion, the total number of LMI units comes to 55.

The "Palmer Pointe Neighborhood" master plan for the Sowams Nursery property (east of Sowams Road) approved by the Planning Board in 2013 calls for 40 new LMI units on the site.

Number of LMI units created "Village" Development (based on approved master plan):
8 for Elderly Rental
27 for Family Rental
5 for Special Needs Rental

Number of LMI units created "Senior Mixed-Use Village" Development
40 for Elderly Rental
12 for Elderly Homeownership
3 for Special Needs Rental

B: LMI Unit Calculations—Detail

Table B-1: Units per Strategy

1. Inclusionary Zoning

53 LMI Units

	Acres		Units by Right			20% AMI	
Zoning District	**(Undeveloped)**	**Allowed Density**	**w/ 20% Bonus**	**% Acres Used**	**Potential Units**	**# Units**	**Rounded**
R10	21.44	4.37/acre	112.06	67%	75.08	15.0	15
R25	127.43	1.74/acre	266.44	67%	178.51	35.7	36
R25C	1.37	1.74/acre	3.63	0%	0.00	0.0	0
R40	44.02	1.09/acre	70.73	67%	47.39	9.5	9
R40-CD	47.41	1.09/acre	61.96	0%	0.00	0.0	0
Total	**241.67**		**514.81**		**300.98**	**60.20**	**60**

2. Senior Residential Community

90 LMI Units

Zoning District	Vacant Builda-ble Acres	Acres (Developed)	Possible Units	Percent Built	Total Units	# LMI Units (50% LMI)	LMI Units (Rounded)
NB	9.8		97.9	30%	29.4	14.7	*15.0*
NB		67.3	672.9	10%	67.3	33.6	*33.0*
LM	1.2		11.6	100%	11.6	5.8	*6.0*
Total	**11.0**	**67.3**	**782.4**		**108.3**	**54.1**	***54***

					50% LMI	
Zoning District	**Acres (Undeveloped)**	**# of Units Per SRC Density**	**% Land Used**	**# Units - SRC**	**#Units**	**Rounded**
R10	21.44	186.77	10%	18.68	9.34	9
R25	127.43	444.06	10%	44.41	22.20	22
R40	44.02	95.87	10%	9.59	4.79	5
Total	192.88	726.70	0	72.67	36.34	**36**

3. Identify Areas for a Mix of Housing Types

33 LMI Units

Vacant Land				Developed Land			
Zoning Dis-trict	**Vacant Lots with Min. Ar-ea***	**Units on 5% of lots**	**# of LMI Units - Vacant Land**	**Developed Resid. Lots with Min. Area***	**Units in 2% of houses**	**# of LMI Units (Rounded)**	**Total LMI Units**
NB	10	0.50	*1*	48	1.20	*1*	2
R10	14	0.70	*1*	485	12.13	*12*	13
R25	59	2.95	*3*	570	14.25	*14*	17
R40	9	0.45	*0*	110	2.75	*3*	3
Total	**82**	**4.10**	***4***	**1,165**	**29.13**	***29***	***33***

*Per Dimensional Regulations Table of the Zoning Ordinance

4. Allow Affordable Housing on New Substandard Lots

33 LMI Units

Zoning District	Developed House Lots at least 175% of Min. Lot Area	Developed Acreage	LMI Units*
R-10	270	169.6	16
R-25	222	373.9	13
R-40	64	192	4
Total	556	735.5	**33**

*6% of Total Oversized House Lots (Developed)

Source: Town GIS Parcel Data, Tax Assessor Data

5. Allow Units above Commercial Uses

33 LMI Units

Zoning District	Acres (Undeveloped)	Acres (Developed)	Possible Units (10/ acre)	Percent Built	Total Units	#Units	Total (Rounded)
B	12.21		122.1	10%	12.21	2.44	2
B		42.53	425.3	10%	42.53	8.51	9
NB	12.64		126.4	35%	44.25	8.85	9
NB		63.97	639.7	10%	63.97	12.79	13
Total	24.85	106.50	1,313.57	0.65	162.97	32.59	**33**

Note: 2 existing LMI units built in mixed-use buildings in NB zones

6. Allow Accessory Apartments

34 LMI Units

Zoning District	House Lots	Percent with Accessory Apartments	New LMI Units	Total (Rounded)
NB [1]	107	1%	1.07	1
R10 [2]	403	1%	4.03	4
R25	2,599	1%	25.99	26
R40	274	1%	2.74	3
Total	**3,383**		**33.83**	**34**

NOTES:

1 - Lots in NB zone are those with existing houses

2 - Lots in R10 zone are those with a minimum of 15,000 square feet

7. Capture Existing "Affordable Homes"

92 LMI Units

Potential Captured Affordable Existing Units

Zoning District	Existing Units	# Units Valued at Under $210,000	Percent LMI Units Captured	Number LMI Units Captured	LMI Units Rounded	% Total Existing Units
B	35	31	0%	0.00	0	0.0%
NB	168	77	30%	23.10	23	13.7%
R10	2940	251	25%	62.75	63	2.1%
R25	2642	23	25%	5.75	6	0.2%
R25C	40	0	0%	0.00	0	0.0%
R40	243	1	0%	0.00	0	0.0%
R40CD	11	-	0%	0.00	0	0.0%
Total	**6,079**	**383**		**91.60**	**92**	1.51%

H. Strongly Negotiate New Comprehensive Permits

142 LMI Units

Zone	Vacant Buildable Acreage	Buildable Acres Assigned to Strategy: New Units	Units Allowed by Zoning	Estimated Units: Comp Permits: One-Step Zone Increase*	LMI Units (Rounded) (Assume 75% Affordable)	LMI Units Approved to Date	Total Comp Permit Units (including approved units)	% of Total Acres Used: New Comp Permit Units
B	4.61	0.46	3.69	5.5	4	50**	54	10.0%
NB	9.79	0.98	7.8	11.8	9	3	14	10.0%
R10	21.44	2.14	9.34	18.68	14	0	14	10.0%
R25	127.43	12.74	22.20	55.51	42	12	54	10.0%
R40	44.02	4.40	4.79	7.67	6	0	6	10.0%
Total	207.29	20.73	47.86	99	75	65	**140**	10.0%

*Density allowed to applications with at least 50% LMI units.
**Includes 3 single-family lots at Sweetbriar

I. Allow "Village" and "Mixed-Use Village" Development in Suitable Areas

95 LMI Units

Zoning District	Current Zoning	Acres	Vacant Buildable Acres Used	Developed Acres Used	Units Allowed by Current Zoning	Inclusionary LMI Units	Total Units at Increased Density*	% LMI	LMI Units
V	R25	9.70	5.60	0.50	14.20	2.84	40	100%	40
MUV	RE	37.12	7.43	24.50	NA	0.00	220	25%	55
Total		46.82		24.50	14.20		260		**95**

*Village zone units per master plan approved for Palmer Pointe Neighborhood; MUV zone units per Developer Guidance - Appendix III

Table B-2: Units by Zoning District

Strategy	Undeveloped Land										Developed Land										
	R10	R25	R25 C	R40	R40-CD	B	NB	LM	MUV*	V*	R10	R25	R25 C	R40	R40-CD	B	NB	LM	V*	MUV*	Total
Inclusionary Zoning	15	36		9	0																**60**
Senior Residential Community	9	22		5			15	6									33				**90**
Mix of Housing Types	1	3		0							12	14		3							**33**
Allow Affordable Housing on Substandard Lots	16	13		4																	**33**
Allow Apartments Above Commercial Uses						2	9									9	13				**33**
Allow Accessory Apartments											4	26		3			1				**34**
Capture Existing "Affordable Homes"											63	6		0		0	23				**92**
Strongly Negotiate New Comprehensive Permits	14	42		6		4	9					12				50	3				**140**
Allow Mixed Use Village Development									7											48	**55**
Allow "Village" Development										40											**40**
Total	55	116	0	24	0	6	33	6	7	40	79	58	0	6	0	59	73	0	0	50	**610***

*Total does not include 96 LMI units that existed prior to the adoption of the Affordable Housing Plan: 60 at Barrington Cove Apartments, 1 family housing unit and 35 group home beds (making for a total of 706 LMI units)

Table B-3: Percent of Land Developed by Zoning District

Strategy	Percent of Vacant Developable Land									Percent of Developed Land								
	R10	R25	R40	R40 CD	B	NB	LM	MUV*	V*	R10	R25	R40	R40 CD	B	NB	LM	MUV*	V*
Inclusionary Zoning	67%	67%	67%															
Senior Residential Community	10%	10%	10%			30%	100%							10%	10%			
Mix of Housing Types	5%	5%	5%			5%				2.5%	2.5%	2.5%						
Allow LMI Housing on Substandard Lots										6%	6%	6%						
Allow Apartments Above Commercial Uses					10%	35%								10%	10%			
Accessory Apartments		1%	1%							0.2%	1%	1%			1%**			
Capture Existing "Affordable Homes"										1%	1%			1%	1%			
Strongly Negotiate New Comprehensive Permits	10%	10%	10%		10%	10%									2%			
Establish Village/Mixed-Use Village Zoning								35%	100%								100%	100%
Total	**92%**	**93%**	**93%**	**0%**	**20%**	**80%**	**100%**	**35%**	**100%**	**10%**	**10%**	**10%**		**21%**	**24%**	**0%**	**100%**	**100%**

* New Zones (proposed)

**1% of lots with single-family houses in NB zone (total: 27.16 acres)

Table B-4: Estimated Acres Required for Strategies, by Zoning District

Strategy	Acres of Undeveloped Land*									Acres of Developed Land									Total per Strategy
	R10	R25	R40	R40 CD	B	NB	LM	SRV**	V**	R10	R25	R40	R40 CD	B	NB	LM	SRV**	V**	
Inclusionary Zoning	14.4	85.4	29.5																129.2
Senior Residential Community		12.7				2.9	1.2							5.1	6.7				28.7
Identify Areas for Mix of Housing Types	1.1	6.4	2.2							22.9	38.4	7.8							78.7
Allow Affordable Housing on New Substandard Lots										8.5	18.7	9.6							36.8
Allow Apartments Above Commercial Uses					0.5	1.6								51.0	67.3				120.4
Allow Accessory Apartments		1.3	0.4							2.2	15.3	3.1			0.3				22.6
Capture Existing "Affordable Homes"										13.4	8.9	0.9		0.6	0.6				24.3
Strongly Negotiate New Comprehensive Permits	2.1	12.7	4.4		0.5	1.0													20.7
Establish Village/Mixed-Use Village Zoning								2.4	10.0								24.5	0.5	37.4
Total Acres by District	17.6	118.5	36.5	0.0	0.9	5.5	1.2	2.4	10.0	47.0	81.2	21.4	0.0	56.7	74.9	0.0	24.5	0.5	498.8
	Total Acres: Undeveloped Land 192.6									Total Acres: Developed Land 306.1									

*On undeveloped land in residential districts, the assumption was made that all land would be subject to the inclusionary provision. While other strategies also allow for development of this land, some with increased density, those percentages are provided as a reference point only and are not included in the sum of the percentage of land developed or acres developed for the obvious reason that it would constitute double-counting of available land.

**Senior Residential Village, Village zones (proposed)

Table B-4 (cont.): Acres Developed by Zoning District

Zoning District	Total Acres	Total Buildable Acres	Developed Acres	Remaining Buildable Acres
R10	960.2	937.9	916.5	21.4
R25	1,853.5	1,661.6	1,534.1	127.4
R25C	28.3	20.8	19.4	1.4
R40	421.7	354.9	310.9	44.0
R40-CD	74.5	59.5	12.1	47.4
B	56.9	55.6	51.0	4.6
NB	78.3	77.1	67.3	9.8
LM	4.8	1.7	0.6	1.1
EH	8.4	8.2	8.0	0.1
MUV*	37.1	31.9	24.5	7.4
V*	9.7	5.6	0.5	5.2
Total	**3,533.4**	**3,214.8**	**2,945.0**	**269.9**

*Proposed new zone

C: LMI Units by Strategy and Year

Table C-1: LMI Units by Strategy and Year

		Additional Units—Projected Year*																								
Strategy	Existing LMI Units	1*	2	3	4	5	1-5	6	7	8	9	10	6-10	11	12	13	14	15	11-15	16	17	18	19	20	16-20	Total LMI Units
Inclusionary Zoning		2	2	2	2	2	**10**	2	2	2	3	3	**12**	3	3	3	4	4	**17**	4	4	4	4	5	**21**	**60**
Senior Resid. Community (50% LMI)		--	--	--	9	--	**9**	12	--	--	--	12	**24**	--	14	--	14	--	**28**	14	--	--	15	--	**29**	**90**
Mix of Housing Types		--	--	1	1	1	**3**	1	1	1	2	2	**7**	2	2	2	2	2	**10**	2	2	3	3	3	**13**	**33**
LMI Units on Substandard Lots		--	--	--	1	1	**2**	1	1	2	2	2	**8**	2	2	2	2	2	**10**	2	2	3	3	3	**13**	**33**
Apartments Above Commercial	**2**	--	--	--	1	1	**2**	1	1	2	2	2	**8**	2	2	2	2	2	**10**	2	2	2	2	3	**11**	**33**
Accessory Apartments		--	--	--	--	1	**1**	2	2	2	2	2	**10**	2	2	2	2	3	**11**	2	2	2	3	3	**12**	**34**
Capture Existing LMI Homes"	**2**	--	2	3	3	3	**11**	4	4	4	5	5	**22**	5	5	5	5	6	**26**	6	6	6	6	7	**31**	**92**
New Comprehensive Permits	**62**	3	--	--	--	--	**3**	7	--	10	--	12	**29**	--	12	--	10	--	**22**	--	--	12	--	12	**24**	**140**
Senior Resid. Village		--	30	25	--	--	**55**	--	--	--	--	--	**0**	--	--	--	--	--	**0**	--	--	--	--	--	**0**	**55**
"Village" Development		--	40	--	--	--	**40**	--	--	--	--	--	**0**	--	--	--	--	--	**0**	--	--	--	--	--	**0**	**40**
Other LMI Units																										
Barr. Cove Apartments	**60**																									**60**
1F home	**1**																									**1**
Grp Home Beds	**35**																									**35**
Subtotal	**162**	5	74	31	17	9	**136**	30	11	23	16	40	**120**	16	42	16	41	19	**134**	32	18	32	36	36	**154**	**706**
Total LMI units added							136						120						134						154	
Running total LMI units	162						298						418						552						706	
Total new units **							307						149						157						174	
Total # of housing units	6,268						6,575						6,724						6,881						7,055	
10% goal	626.8						658						672						688						**706**	
% LMI Units Achieved	**2.58%**						**4.5%**						**6.2%**						**8.0%**						**10.01%**	
Total New LMI units added: Years 1 through 20																									**544**	

***Year 1 = 2015**

****Total new units added per Table 6 in Land Use element (capturing existing affordable housing does not add to new unit total)**

D: LMI Housing— by Household and Tenure

Table D-1: LMI Housing— by Household and Tenure

This table describes the household and tenure types to be served by each LMI housing production strategy. The goals depicted for each type correspond to the proportional CHAS need previously discussed in this element, except for Senior Residential Communities. It is estimated that the rental need for the senior population will in fact be more than that reflected in the CHAS data.

LMI Housing Strategy	Totals by Strategy	Elderly		Family		Special Needs	
		Rental	HO*	Rental	HO	Rental	HO
Projected New Units - by Strategy							
Mandatory Inclusionary Zoning	60	-	5	3	51	-	1
Senior Residential Communities (SRC)	90	25	60	-	-	5	-
Identify Areas That Could Support A Mix Of Housing Types	33	-	8	2	23	-	-
Allow Affordable Housing Development On New Substandard Lots	33	-	4	4	21	2	2
Allow Apartments Above Commercial Uses	33	10	1	17	5	-	-
Allow Accessory Apartments	34	14	-	19	-	1	-
Capture Existing "Affordable Homes"	92	-	-	18	72	2	-
Strongly Negotiate New Comprehensive Permits	140	8	32	83	11	5	1
Mixed Use Village Zoning	55	40	12			3	-
Village Development Zoning	40	8		27		5	
Comprehensive Permits	96	60		1		35*	
Apartments Above Commercial	2			1	1		
Other	96	60			1	35*	
Total LMI units				***706***			
LMI Unit Totals by Household and Tenure Type	**706**	**165**	**122**	**174**	**183**	**58**	**4**
Totals by HH type		***287***		***357***		***62***	
Future Need Goal by CHAS data	***601***	***246***		***291***		***64***	

*Group Home Beds

E: Locations Where Strategies Will Be Implemented

Table E-1: Locations Where Strategies Will Be Implemented

This table outlines the location of targeted strategies to increase the low- and moderate-income housing in Barrington. Separate maps for each strategy are not included because confining a strategy to a select geographic area on an individual map does not lead to an appreciation of the fact that the strategies may be combined.

Strategy	LMI Units	Zoning Districts
Mandate Inclusionary Zoning	57	R10, R25, R40
Senior Residential Communities	90	R10, R25, R40, B, NB, LM
ID Areas that could Support a Mix of Hsg Types	32	R10, R25, R25C, R40
Allow Affordable Housing Dev. on Subst. Lots	39	R10, R25, R40
Allow Units Above Commercial	33	B, NB
Allow Accessory Apartments	29	NB, R10, R25, R40
Capture Existing "Affordable Homes"	88	R10, R25, R40, B, NB
Strongly Negotiate Comprehensive Permits	147	R10, R25, R40
Establish MUV and V Zones	90	MUV*, V*

F: Barrington's Low- and Moderate- Income Housing (2013)

2013 Low- and Moderate-Income Homes by Community

7/9/2014

	LMIH Grand Total	Total Housing Units (2010) (minus seasonal)	2013: Overall LMIH %	Elderly						Elderly Total	Family					Family Total	Special Needs					Special Needs Total
				HUD 202	HUD Section 8-Elderly	Public Housing-Elderly	RHS 515	RIH Elderly	Other-Elderly		HUD Section 8-Family	Other-Family	Public Housing-Family	RHS 515	RIH Family		Group Home Beds	HUD 811	RIH Family	Supportive Homes	RIH Special Needs	
Barrington	160	6268	2.55%					60		60		1			64	65	35					35
Bristol	535	9015	5.93%	96		195		68		359		26			74	100	50			26		76
Burrillville	532	6189	8.60%	53		76		113		242		28			234	262	28					28
Central Falls	874	7473	11.70%	14		329		289		632		4	18		173	195	29	10			8	47
Charlestown	70	3494	2.00%									8			8	16	54					54
Coventry	758	14082	5.38%	34	207	195				436		12			268	280	41			1		42
Cranston	1,779	32935	5.40%	58		587		700		1,345	168		26		35	229	172	23		10		205
Cumberland	798	13738	5.81%	103	88	176		255		622					108	108	61				7	68
East Greenwich	232	5342	4.34%		106			35		141		7	27		16	50	41					41
East Providence	2,097	21363	9.82%	112		400		877		1,389	168		35		389	592	91	25				116
Exeter	57	2453	2.32%									1			32	33	24					24
Foster	41	1760	2.33%				30			30							11					11
Glocester	82	3848	2.13%				62			62		5				5	15					15
Hopkinton	238	3370	7.06%	167				23		190					21	21	27					27
Jamestown	111	2529	4.39%	12		35		19		66	20	1			8	29	11		5			16
Johnston	1,008	12381	8.14%	113		128		496		737	62		27		60	149	90	11		8	13	122
Lincoln	598	9015	6.63%			246		120		366	70	7	6		83	166	66					66
Little Compton	9	1615	0.56%												9	9						
Middletown	385	6874	5.60%	49				50		99					185	185	74	15		2	10	101
Narragansett	261	7156	3.65%			4		104		108		6	12		105	123	21			9		30
New Shoreham	57	555	10.27%									26		16	15	57						
Newport	1,996	11655	17.13%	116		249		87		452	123	4	330		887	1,344	55			145		200
North Kingstown	867	10953	7.92%	20				170	1	191	109	1			435	545	47	10		16	58	131
North Providence	1,061	15317	6.93%		49	131		742		922			14			14	86	33		6		125
North Smithfield	415	5047	8.22%				75	220		295		22			38	60	60					60
Pawtucket	2,780	31979	8.69%	114	14	629		594		1,351		26	456		719	1,201	131	46		4	47	228
Portsmouth	209	7412	2.82%	33		40		94		167					12	12	25			5		30
Providence	10,500	71168	14.75%	609	520	1,133		2,098		4,360	809	378	1,473		2,493	5,153	351	98		144	394	987
Richmond	52	2911	1.79%									2			20	22	30					30
Scituate	35	4102	0.85%				24			24							11					11
Smithfield	396	7845	5.05%	46		50		194		290					5	5	101					101
South Kingstown	593	10900	5.44%	169		18	32	125		344		21	52		77	150	80	10		9		99
Tiverton	356	7138	4.99%	51		45		24		120					191	191	45					45
Warren	225	5031	4.47%			153				153					7	7	36	10		19		65
Warwick	1,997	37244	5.36%	153	475	483		546		1,657		5	36		108	149	141	10		2	38	191
West Greenwich	33	2334	1.41%												19	19	14					14
West Warwick	1,129	13813	8.17%	183	18	250		263		714	100	2			193	295	92	12		6	10	120
Westerly	547	10430	5.24%			110		249		359		4	13	22	86	125	42	10		5	6	63
Woonsocket	3,045	19168	15.89%	43	87	644		502		1,276	415		611		586	1,612	67	49		16	25	157
LMIH Grand Total	36,918	445,902	8.28%	2,348	1,564	6,306	223	9,117	1	19,559	2,044	597	3,136	38	7,763	13,578	2,355	372	5	433	616	3,781

Public Housing consists of apartments owned & managed by local housing authorities. Rhode Island Housing (RIH) numbers include homes financed by Housing Credits, HOME (rental & homeownership), apartment mortgage loans, project-based Section 8 apartments, Special Needs Rental Program, as well as homes financed by the State's Neighborhood Opportunities Program (NOP) and Building Homes Rhode Island (BHRI). RHS515 are apartments funded through the Rural Housing Service. HUD Section 8 are development-based rental subsidies, not portable tenant vouchers. HUD 202 and 811 are rental funding programs for the elderly and disabled, respectively. Other subsidies include municipally administered CDBG and municipal government subsidies. Group Home Beds are residential facilities licensed by the state's DCYF and MHRH agencies. Towns shaded in black have low-and moderate-income units in excess of 10% of all housing units. Towns shaded in gray have at least 5,000 occupied rental units that comprise at least 25% of all housing units, and the town's low- and moderate-income rental units exceed 15% of the occupied rental units. Seasonal housing is not reflected in the number of total (actual) housing units for each municipality.

APPENDIX II: Developer Guidance for Senior Residential Village and Village Sites (per Future Land Use Map)

The following is provided as guidance for potential developers of sites that qualify per Section 1: Applicability, for establishment of a new "Senior Residential Village" zone. The guidelines provide the Town a means to evaluate development proposals and new zoning submitted for the site.

1. Applicability

This guidance shall apply to the (former) Zion Bible Institute on Middle Highway (Plat 14/Lots 2, 4, 13, 341, 342, 343).

2. Findings

A. The Town of Barrington's Comprehensive Community Plan outlines strategies to achieve the state-mandated 10 percent low- and moderate-income housing goal, and expanding housing options for current and future residents of Barrington. The Comprehensive Plan identifies a need to provide housing for a growing senior population, workforce housing for municipal employees and other workers, and persons with disabilities.

B. Two specific areas of Town identified in the *Housing for Barrington's Future: Housing Land Use Study* are suitable to implement creation of a compact "village" community with a range of housing types at varying densities: the former Zion Bible Institute campus on Middle Highway (Plat 14/Lots 2, 4, 13, 341, 342, 343) and the former Sowams Nursery east of Sowams Road (Plat 28/Lots 72, 73, 246, 249, 263).

3. Purpose

The purpose is to achieve the following:

A. Increase diversity of housing types in Barrington, with dwelling units that meet the needs of residents at varying life stages, recognizing that single-family homes in traditional subdivisions may not meet the needs of all segments of the population, especially the senior population.

B. Meet the housing needs of households with a range of incomes, including 75 percent at market rate and 25 percent housing affordable to those with low income (below 80 percent of area median income) or moderate income (80 to 120 percent of area median income).

C. Encourage a form of development that embraces the town and neighbors, and does not give the appearance of a stand-alone development or "gated community."

D. Promote the concept of a "garden suburb" in keeping with the character of Barrington, with a formal element at the core (village green, higher densities) and lower densities at the edges.

E. Provide housing that is accessible to people with disabilities.

F. Design common areas for people to meet and develop strong social ties.

G. Provide compact, sustainable development that preserves open space for recreation, hiking paths, community gardens, and other public uses.
H. Encourage walkable neighborhoods by providing sidewalks, hiking paths, and connections to shops and services, where feasible.
I. Facilitate public interaction along the street by including residential units with porches and covered stoops, as appropriate.
J. Minimize the emphasis of private vehicles by recessing garages back from the facade of the structure or providing utility access to garages on rear or side alleyways or driveways, where possible.
K. Retain existing buildings with historical or architectural features that define the visual character of the community. Retain properties such as Belton Court, listed on the National Register of Historic Places. Retain monumental landscaping and features such as the existing cedar hedge and stonewall along Middle Highway.
L. Incorporate low impact development principles into the design to reduce energy consumption for construction, operation, and maintenance, to reduce impermeable pavement, and to encourage use of sustainable materials and energy sources.
M. Encourage access to multi-modal transit.
N. Provide mixed use for developments with more than 20 contiguous acres of upland, to assure convenient access to some of the goods and services needed for a diverse population.

4. Definitions

A. Assisted living: A type of long-term care facility for elderly or disabled people who are able to get around on their own but who may need help with some activities of daily living, or simply prefer the convenience of having their meals in a central cafeteria and having nursing staff on call.
B. Cottage housing: Single-family attached or detached units within a range of 800 to 2,000 square feet of living space, clustered around and fronting on common open space or a courtyard.
C. Senior multifamily housing — A multi-level building consisting of three or more senior housing apartments and/or condominiums.
D. Senior housing: Housing units with covenants restricting occupancy to at least one person 55 years of age and older..
E. Townhouse: Attached multi-level residential unit.

5. Design and building requirements

Design and building requirements are as follows:

<u>Minimum Requirements</u>

A. Proposed development shall provide a minimum of 25 percent affordable units as defined in RIGL 45- 53-3(5). Units shall be constructed or rehabilitated with a federal,

state, or municipal subsidy, and must remain affordable for at least thirty years.

B. Residential units shall include a mixture of housing types, including single-family, townhouse, cottage and, where appropriate, multifamily units, to encourage a diversity of housing types.

C. Affordable housing units shall be comply with Section 185-195A of the Zoning Ordinance:

Design and Building Requirements:

1. Be reasonably dispersed throughout the development
2. Be indistinguishable in appearance of quality of construction from the other units in the development
3. Contain a mix of one, two and three bedrooms
4. Be compatible in architectural style to the market rate units within the project

Density

D. Overall residential density at the (former) Zion Bible Institute, or other eligible parcels greater than 20 acres, shall be 6 to 8 units per acre of developable land.

E. Developable land shall exclude:

1. Land within the State regulatory wetland setback
2. Land within the 100-year floodplain
3. Land utilized for a commercial use such as an assisted living facility and associated parking
4. At the Zion Bible Institute site, developable land also shall exclude 4.5 acres within the Belton Court Historic Register District.

F. Density bonus. For the Zion Bible Institute site, a density bonus shall be available subject to attainment of the following performance standards:

1. Preservation and restoration of Belton Court and grounds associated with its historic use, including the central courtyard and front lawn between the building and Middle Highway. Preservation of the mature vegetation in front of Belton Court along Middle Highway Density bonus: include the Belton Court Historic Register District acreage in the developable land area.
2. Provision either on-site or off-site of public open space and recreation of 500 square feet per unit, or 200 square feet more per unit required per Developer Guidance "5H". Density bonus: include land utilized for commercial use, including associated parking, in the developable land area.

G. Residential density at the (former) Sowams Nursery property, or other eligible parcels with greater than 5 acres of contiguous upland, shall be no more than 5 units per acre. Developable land shall exclude wetlands, floodplains and other constrained areas, but include common open space/recreation areas, roadway infrastructure and stormwater management areas.

Open Space/Recreation Requirements

H. Open space/recreation improvements shall be required. For each unit, 300 square feet of open space shall be preserved (in addition to wetlands/flood zone and other areas of constraint) and improved for the benefit of residents and accessible to the general public. Open space/recreation improvements shall be completed on site; developers may request from the Town approval to meet a portion of the open space/recreation im-

provements requirement off-site. Improvements may include common open seating areas and landscaped parks, playground, community gardens and vegetable plots, hiking trails, or off-site improvements so designated at the discretion of the planning board at existing municipal recreation areas.

Streets

I. Streets shall be designed with sidewalks along at least one side of the roadway. Sidewalk width shall be at least five feet.

J. Continuous streets are preferred., Cul-de-sacs may be approved deemed necessary due to environmental constraints or other site-related factors.

K. The number of curb cuts on shall be minimized.

Streetscape/Parking

L. Rights of way shall include sidewalks along at least one side of the road; sidewalks on both sides of a street shall be provided in multi-family, institutional, and mixed-use areas.

M. Development of the Zion Bible Institute site shall include new and repaired sidewalks on Middle Highway shall be provided along the property's street frontage to County Road/RI 103

N. Street trees shall be planted at regular intervals, consistent with the Town's Land Development and Subdivision Regulations, to define the street edge, buffer pedestrians from vehicles, and provide shade. Trees shall be located in a planting strip between the curb and sidewalk.

O. Utilities shall be placed underground.

P. Pedestrian-scale lighting shall be provided along all roadways and in surface parking lots in areas designated for high density/institutional uses (in sites greater than 20 acres).

Q. Off-street parking spaces shall be provided based on the minimum number of spaces required in the Town's Zoning Ordinance for specific uses.

R. The provision of large parking areas shall be minimized. Small parking areas that are well integrated within the site are encouraged (for example, for Belton Court and the high-density areas at the Zion Bible Institute site).

S. Parking shall not overwhelm spaces between buildings. Landscaping and public spaces shall be used to break up / soften parking lots where provided.

T. On-street, surface parking shall not be located within thirty (30) feet of a corner.

V. "Dark Sky" cut-off lighting fixtures within parking areas shall be required.

Historic Preservation

U. Properties listed on the National Register of Historic Places shall be preserved.

V. At the Zion Bible Institute site, Belton Court shall be restored in a manner that is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties. The historic grounds associated with Belton Court shall be preserved (the area, including the building and grounds, totals approximately 4.5 acres).

Buildings

W. A range of building typologies with articulated facades and rooflines, and porches are encouraged.

X. The ground floor of an assisted living facility, if included in the Zion Bible Institute project, shall be articulated to relate well with the street. Examples: include porches/ colonnades. This is especially important with the side(s) facing the street.

Y. Designs shall incorporate porches or wide stoops with overhangs on the front of units whenever possible to encourage interaction between residents and those walking along pedestrian paths and sidewalks.

Mixed Use Option

Z. Parcels with more than 20 acres shall provide a mixture of uses (possible assisted living, retail, restaurant, senior services, office or other use) in addition to residential use. A mixture of convenient uses, geared towards the needs of local residents, encourages walkable neighborhoods and helps reduce vehicle miles traveled.

AA. On-site amenities are encouraged for developments of 20 or more acres (Mixed Use Village). Amenities could include meeting space, medical office, coffee shop, hair salon, or other service meeting the needs of seniors or include a daycare facility.

Site Planning

BB. Development of the sites shall carefully arrange densities on the site such that lower densities are located along the edges that abut existing neighborhoods.

CC. Transitions from high- to medium- to low-density (in developments of more than 20+ contiguous acres) shall be carefully designed to avoid abrupt changes in building heights and massing. This can be handled through articulation of the buildings and other strategies such as locating public open spaces to serve as transition zones.

DD. Green building / sustainable principles shall be incorporated in site design.

EE. Stormwater shall be managed in accordance with low impact design standards.

FF. Native vegetation shall be retained and grading minimized wherever possible to maintain natural features of the site.

Other

GG. A homeowner's association shall be formed to maintain common areas such as parks, trails, lawns, and private roadways.

6. Dimensional Regulations

Dimensional regulations within Village and Senior Residential Village zones shall be consistent with the design and building requirements in this appendix and, to the extent feasible, with existing Dimensional Regulations Table in the Barrington Zoning Ordinance for similar zoning districts.

A. To illustrate, the senior residential village development at the Zion Bible Institute site, the following dimensional regulations shall be considered:

1. Multi-Family Senior Housing/Institutional Areas north and west of Belton Court: Elderly Housing dimensional regulations
2. Cottage Housing Area: Senior Residential Communities dimensional regulations (Article XXX of the Barrington Zoning Ordinance)

3. Historic Preservation areas (Mixed-Use/Institutional and Residential areas) – renovation of existing historic structures within existing footprint
4. Vegetative buffer/wetlands/conservation land/floodplain: N/A (no development)

B. To illustrate, for the village development concept at the Sowams Nursery site as described in *Section 1–Applicability* the following dimensional regulations shall be considered:

1. Medium Density Areas: Neighborhood Business and Residence 10 dimensional regulations
2. Vegetative buffer/wetlands/conservation land/floodplain: N/A (no development)

C. Special Provisions:

1. Buildings with frontage on Middle Highway shall not exceed the height of the main sections of Belton Court (excluding the tower).
2. On roads other than alleys, the setback of attached and detached garages shall be greater than the setback of residential units from the street.

APPENDIX IIA: Developer Guidance for Allin's Cove and Former O'Bannon Mill Sites

The following is provided as guidance for potential developers of the Allin's Cove and Former O'Bannon Mill Sites, for establishment of a new zone or zones that can accommodate the vision described below. These guidelines were developed as part of the Bay Spring Avenue Study that occurred between 2016 and 2018, and included extensive public input. The guidelines provide the Town a means to evaluate development proposals, including comprehensive permit applications, and new zoning submitted for the sites.

1. Applicability

This guidance shall apply to the parcel on Adams Avenue, Assessor's Plat 2, Lot 154 (Allin's Cove site) and the parcel at 85 Bay Spring Avenue, Assessor's Plat 2, Lot 109 (Former O'Bannon Mill site).

2. Findings

A. The Town of Barrington's Comprehensive Community Plan outlines strategies to achieve the State-mandated 10 percent low- and moderate-income housing goal, and expanding housing options for current and future residents of Barrington. The Comprehensive Plan identifies a need to provide housing for a growing senior population, workforce housing for municipal employees and other workers, and for other individuals and households seeking alternatives to single-family homes on larger lots.
B. The two specific areas listed above under Section 1 – Applicability present an opportunity to provide alternative housing types in Barrington, such as cottages, while preserving significant open space accessible to the public.

3. Purpose

The purpose is to achieve the following:

A. Increase diversity of housing types in Barrington, with cottage units that meet the needs of residents at varying life stages, recognizing that single-family homes in traditional subdivisions may not meet the needs of all segments of the population, especially the senior population, single-person households, and young adults.
B. Establish building and site standards that reduce or eliminate accessibility barriers for people with mobility issues, including those with an unsteady gait.
C. Meet the housing needs of households with a range of incomes, including 80 percent at market rate and 20 percent affordable to those with low-moderate incomes as defined by the State Low-Moderate Income Housing Law.
D. Encourage a form of development that is more consistent with the character of existing homes in the neighborhood – generally smaller homes on smaller lots than what is allowed by current residential zoning in the Bay Spring neighborhood (R-10).
E. Provide compact, sustainable development on developable land, and open space with a long-term conservation easement on land that has significant environmental constraints. The open space will be publicly accessible, with walking and biking paths and other public uses.
F. Encourage walkable and bikeable neighborhoods by providing or repairing sidewalks, walking

and biking paths, on-street bicycle infrastructure, traffic calming measures, and connections to adjacent parks and public spaces, where feasible.

G. Facilitate public interaction by including common areas and residential units with front porches and covered stoops, as appropriate.

H. Reduce the emphasis of private vehicles by recessing lots and/or garages back from the facade of the structure or providing utility access to garages on rear or side alleyways or driveways, where possible.

I. Incorporate low impact development principles into the design to reduce energy consumption for construction, operation, and maintenance; to reduce and properly manage impervious surface; and to encourage use of sustainable materials and energy sources.

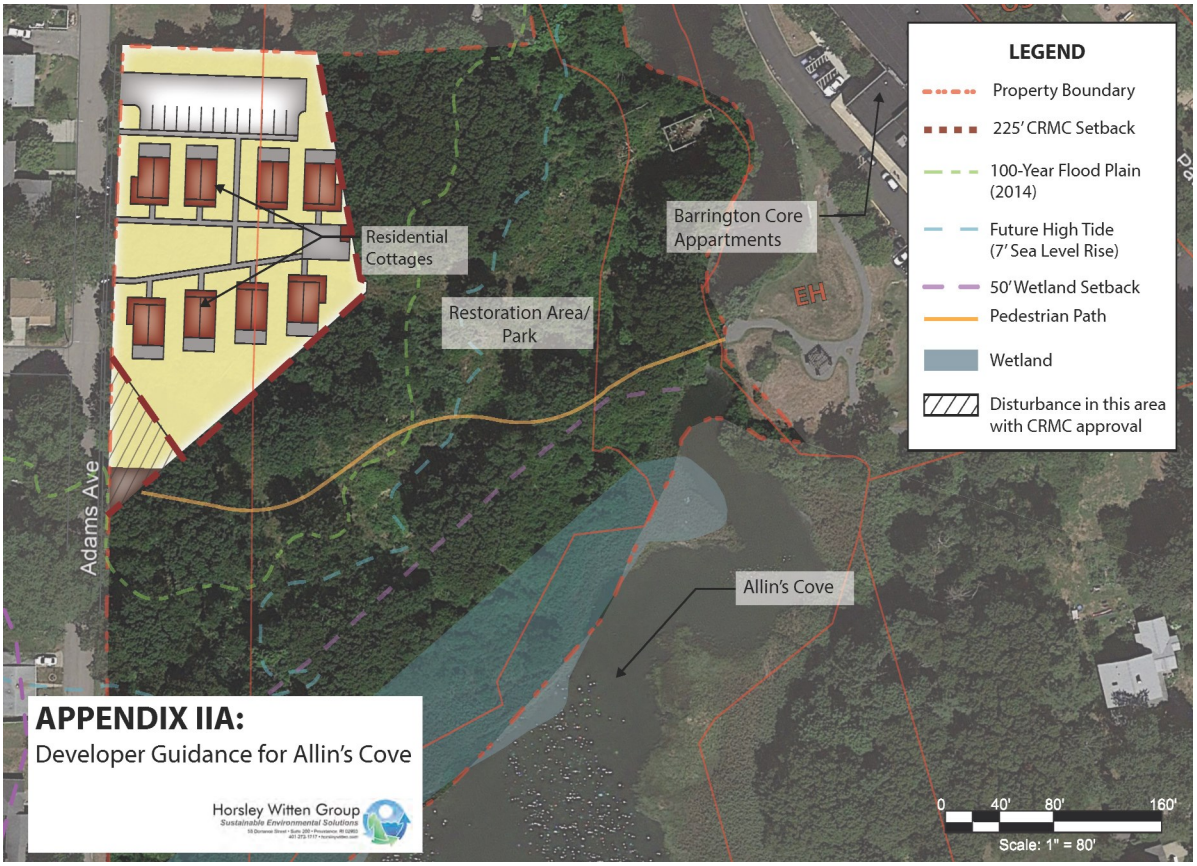
J. Encourage site and building design that accounts for not only existing floodplains and coastal features, but also anticipated impacts of future sea level rise.

K. At the Former O'Bannon Mill site, accommodate a mix of uses along the Bay Spring Avenue frontage to assure the opportunity for businesses or community facilities that serve the local neighborhood and users of the adjacent East Bay Bike Path.

4. Definitions

For the purposes of this Appendix only, cottages that could be developed on the Allin's Cove and O'Bannon sites include single-family attached or detached units within a range of 800 to 1,200 square feet of living space, generally clustered around and fronting on common open space or a courtyard.

Figure IIA-1: Conceptual Site Plan—Allin's Cove Site



5. Design and building requirements

Design and building requirements are as follows:

A. Minimum Requirements

i. Proposed development shall provide a minimum of 20 percent affordable units as defined in RIGL 45-53-3. The density bonus provided by the Town for projects pursued under this Developer Guidance constitutes the local subsidy, as required by State law. All affordable units shall remain affordable for at least 99 years through the use of deed restrictions or equivalent legal instrument.

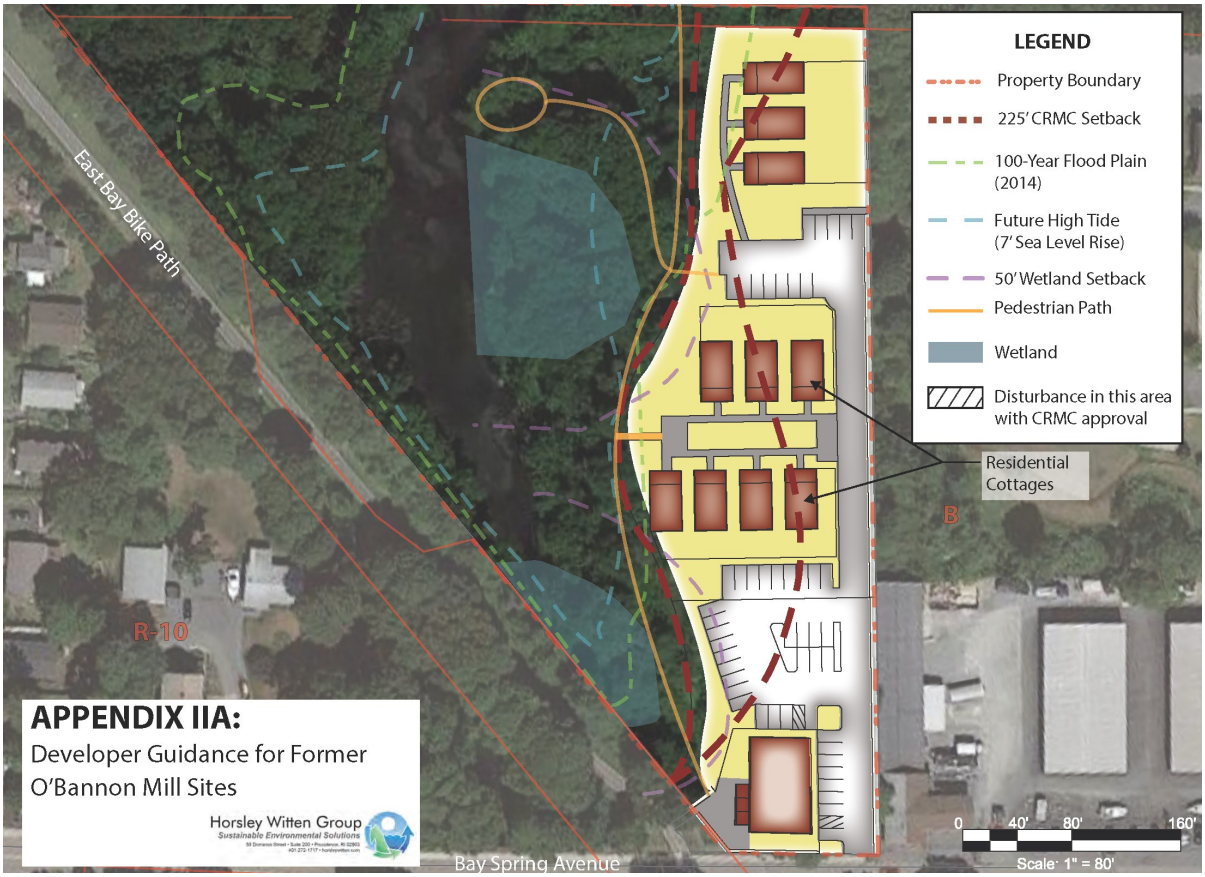
ii. At least 20 percent of the units shall be ADA-accessible, to include a first-floor master bedroom and bath, in accordance with the guidance in A Manual to Assist Designers and Builders in Meeting the Accessibility Requirements of the Fair Housing Act published by HUD.

iii. Residential units shall emphasize cottage style design as defined in Section 4 – Definitions above.

iv. Affordable housing units shall comply with Section 185-195A of the Zoning Ordinance, Design and Building Requirements, and shall:

- Be reasonably dispersed throughout the development.
- Be indistinguishable in appearance of quality of construction from the other units in the development.
- Be indistinguishable in architectural style to the market rate units within the project.

Figure IIA-2: Conceptual Site Plan—Former O'Bannon Mill Site



iv. Successful remediation and/or capping of any brownfields land per any decision DEM makes regarding this site.
v. Preservation of as many native mature trees as allowed by DEM, to include a long-term maintenance plan safeguarding the health of the trees.
vi. Removal of invasive plants to include a long-term invasive plant management plan enforceable by the Barrington Land Conservation Trust and/or the Town of Barrington.
vii. Development of walking trails with permanent access to the public. For the Former O'Bannon Mill site, an ADA-accessible walking trail shall be constructed and maintained, providing permanent public access between Bay Spring Avenue at the East Bay Bike Path and Haines State Park.

B. Density

i. Overall residential density shall not exceed 10 units per acre of developable land.
ii. Developable land shall exclude:
   a. Any land deemed unbuildable for purposes of brownfields remediation by the RI Department of Environmental Management (DEM) or for proximity to a coastal or inland water resource by the Coastal Resources Management Council (CRMC), within any limitations for measuring developable land per State law.
   b. For the Former O'Bannon Mill site, land utilized for a non-residential use or mixed-use building and any associated parking.

C. Streets & Sidewalks

i. Any development at the Allin's Cove site will be responsible for constructing a sidewalk, at least five feet in width, along the east side of Adams Avenue from Bay Spring Avenue to the southern end of the site. Subject to approval by the Planning Board based on recommendations from the Town's Public Works Director, the developer shall design and construct a safe crosswalk from the existing sidewalk on the north side of Bay Spring Avenue to the new sidewalk along Adams Avenue, including any striping, signage, and traffic calming measures. In lieu of the sidewalk on Adams Avenue the Planning Board, at its discretion, may require construction of new and reconstruction of existing sidewalks on Bay Spring Avenue of a length equal to that of the sidewalk that would be required on Adams Avenue.
ii. Any development at the Former O'Bannon Mill site will be responsible for repairing the existing sidewalk in front of the site, and constructing a separated pedestrian walkway from Bay Spring Avenue to any interior development not fronting the street. Subject to approval by the Planning Board based on recommendations from the Town's Public Works Director, the developer shall design and construct an improved, safer crossing at the intersection of Bay Spring Avenue and the East Bay Bike Path, including any striping, signage, and traffic calming measures.
iii. The Allin's Cove site will have no more than two curb cuts. The Former O'Bannon Mill site will have no more than one curb cut.

D. Streetscape/Parking

i. Street trees shall be planted at regular intervals along public streets abutting the properties and within the interior driveway of the Former O'Bannon Mill site, consistent with the

Town's Land Development and Subdivision Regulations, to define the street edge, buffer pedestrians from vehicles, and provide shade. Trees shall be located in a planting strip between the curb and sidewalk.

ii. Utilities shall be placed underground, unless prohibited by environmental remediation standards for the site(s).

iii. At the Former O'Bannon Mill site, pedestrian-scale (e.g. on bollards) LED lighting shall be provided along the interior public pedestrian walkway extending from Bay Spring Avenue into Haines Park, at a minimum of 1 lux of illumination. This lighting shall be directed down and along the path.

iv. Off-street parking spaces shall be provided based on the minimum number of spaces required in the Town's Zoning Ordinance for specific uses.

v. Parking shall not overwhelm spaces between buildings. Landscaping shall be used to break up / soften parking lots where provided.

vi. Cut-off LED lighting fixtures within parking areas, directed downward so as not to spill into the sky or neighboring properties, shall be required. Such lighting will be at a minimum of 3 lux of illumination, on poles no taller than 18 feet.

E. Buildings

The following building standards shall apply, subject to findings of consistency by the Technical Review Committee:

i. Variety in Residential Cottage Design. The same combination of building elements, features, and treatments shall not be repeated on individual dwelling units for more than twenty (20) percent of the total dwelling units in a cottage housing development. Dwelling units with the same combination of features and treatments shall not be located adjacent to each other. At a minimum, variation in general architectural elevation and size is required. In addition, a minimum of four (4) of the following building elements, features, and treatments shall be provided in a manner that creates visual variety between adjacent structures and within any clusters of cottage units:

   a. Variation in roof or building colors and materials, such as brick, stone or other masonry as accents (vinyl or cementitious finish materials are prohibited)
   b. Varying roof shapes or gables between adjacent structures
   c. Windows with visible trim and mullions
   d. Roof brackets
   e. Dormers
   f. Fascia boards
   g. Bay windows
   h. Entry enhancement such as a well detailed door (multi-panel or glass insert), window adjacent to front door, or roof extension
   i. Trellis
   j. Modulation
   k. Chimney (visible on the exterior of the house)

ii. Porches

   a. Cottage housing units shall have a covered porch over the primary entrance at least sixty (100) square feet in size with a minimum depth of eight feet on any side.
   b. Cottage housing units shall have the covered porches of the main entry oriented to the

common open space or the public street right of way as applicable.

c. The porch decking on ADA-accessible cottage units shall be flush to the ground (no step).

iii. Access to and into ADA-accessible units, including walkways, porches and the front entrance, shall include additional accommodations for people with an unsteady gait. Measures shall include the provision of railings at front and rear entryways/porches, regardless of slope.

iv. Non-Residential Building Design–Former O'Bannon Mill site. Any non-residential or mixed-use building fronting Bay Spring Avenue shall comply with *Sec. 200-86 - Performance Standards, A. Building standards* in the Town's Land Development and Subdivision Regulations. If the building is not built to the front lot line, any front yard area will be landscaped and will not be used for parking or otherwise be paved. Hardscape elements for pedestrians are allowed.

F. Site Planning

i. Green building / sustainable principles shall be incorporated in site design.

ii. Stormwater shall be managed in accordance with low impact design standards, consistent with the Rhode Island Stormwater Manual.

G. Other

i. For both sites, the property owner or a homeowner's association shall maintain common areas such as parks, trails, lawns, and private roadways.

ii. For any land held under a conservation easement, such easement shall identify the party or parties responsible for the long term maintenance and environmental conditions of the site.

6. Dimensional Regulations

A. For Residential Cottages

i. Cottage units may be developed on separate lots, a single lot, or a combination thereof.

ii. No detached accessory buildings shall be allowed except as facilities such as storage sheds, garages, utility structures, or similar common facilities.

iii. Dwelling units shall be separated by a minimum of ten (10) feet from the side edge of one building to another. Where attached architectural features such as eaves, window bays, bulkheads, etc. project into the space between residences, the ten (10) foot separation shall be measured from the outside edge of these features.

iv. Dwelling units not abutting or oriented towards a right-of-way shall have a front yard oriented towards common open space.

v. The distance between the front building edge and the right of way or the edge of the common space shall be at least fifteen (15) feet.

vi. The building height for all structures shall not exceed twenty-five (25) feet.

vii. Accessory apartment units are not allowed.

B. For Non-Residential and Mixed-Use Buildings on the Former O'Bannon Mill Site

i. Consider the dimensional standards of the Residence-Business Flex zoning district.

APPENDIX III: Critical Sites—Natural Hazards

Critical Asset	Location	Owner-ship	Primary Natural Hazards	Primary Threat
SPECIAL POPULATION CENTERS				
Senior Center (Ground Floor Public Library)	281 County Road	Town	Earthquake	Structural damage
Bay Spring Assisted Living Facility	Bay Spring Avenue	Private	Flood – 100-year Flood Zone (AE) Hurricane – Category 2 storm surge	Flooding
Barrington Cove Apartments	Bay Spring Avenue	Private	Hurricane – Category 3 storm surge	Flooding
SCHOOLS				
Barrington Christian Academy	9 Old County Road	Private	Hurricane – Category 4 storm surge	Flooding
Barrington Early Childhood Center	448 College Lane	Private	N/A	N/A
Kids Quarters	64 Bay Spring Avenue	Private	Hurricane – Category 4 storm surge	Flooding
Montessori Centre of Barrington	303 Sowams Road	Private	Hurricane – Category 2 storm surge	Flooding
Nayatt School	400 Nayatt Road	Town	Hurricane – Category 2 storm surge	Flooding
Barrington High School	220 Lincoln Avenue	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 2 storm surge	Flooding
Barrington Middle School	Middle Highway	Town	Hurricane – Category 3 storm surge	Flooding
Primrose Hill School*	Middle Highway	Town	N/A	
Hampden Meadows School	New Meadow Road	Town	Hurricane – Category 4 storm surge	Flooding
Sowams Elementary School	364 Sowams Road	Town	Hurricane – Category 2 storm surge	Flooding
JCC at Temple Habonim-Barrington	165 New Meadow Road	Private	Hurricane – Category 2 storm surge	Flooding
Red Brick School	50 Middle Highway	Private	N/A	N/A
St. Andrew's School	63 Federal Road	Private	N/A	N/A
Tot's Cooperative Nursery School	461 County Road	Private	Flood – 100-year Flood Zone (AE) Hurricane – Category 1 storm surge	Flooding
St. Luke School	10 Waldron Avenue	Private	N/A	N/A
EMERGENCY/OPERATING CENTERS				
Fire Station	100 Federal Road	Town	Hurricane – Category 3 storm surge	Flooding
Hampden Meadows Volunteer Fire Department	Sowams Road	Town	Hurricane – Category 2 storm surge	Flooding
Police Station/Public Safety	100 Federal Road	Town	Hurricane – Category 4 storm surge	Flooding
Town Hall	285 County Road	Town	Earthquake	Structural damage
Bay Spring Community Center	17 Blanding Avenue	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 2 storm surge	Flooding
Department of Public Works	Upland Way	Town	N/A	N/A

*Red Cross shelter

Critical Asset	Location	Owner-ship	Primary Natural Hazards	Primary Threat
RESIDENTIAL & COMMERCIAL PROPERTIES				
Various	Various	Private	Flood – Coastal flood (Zone VE), 100-year Flood Zone (AE) Hurricane – Category 1-4 storm surge	Flooding
DAMS				
Echo Lake Dam	South Lake Drive	R.I. Country Club	Flood – 100-year Flood Zone (AE) Hurricane – Category 2 storm surge	Flooding
Rhode Island Country Club Dam	Washington Road	R.I. Country Club	Flood – 100-year Flood Zone (AE) Hurricane – Category 1 storm surge	Flooding
Unnamed Dam at Barring-ton Cove Apartments	Bay Spring Ave-nue	Private	Flood – Coastal flood w/ velocity hazard (Zone VE), 100-year Flood Zone (AE) Hurricane – Category 1/2 storm surge	Flooding
UTILITIES				
Bay Spring Ave Pump Station	Bay Spring Ave	Town	Flood – Coastal flood w/ velocity hazard (Zone VE), 100-year Flood Zone (AE) Hurricane – Category 1/2 storm surge	Flooding
Brickyard Pond Pump Station	Brickyard Pond	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 2 storm surge	Flooding
Freemont Pump Station	Freemont Ave	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 1/2 storm surge	Flooding
Police Station Pump Sta-tion	Police Cove	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 1 storm surge	Flooding
Prince's Pond Pump Sta-tion	County Road/ Prince's Pond	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 1 storm surge	Flooding
Walnut Road Pump Sta-tion	Walnut Road	Town	Hurricane – Category 3/4 storm surge	Flooding
Adam's Point Ejector Sta-tion	Adam's Point Road	Town	Flood – Coastal flood (Zone VE) Hurricane – Category 1 storm surge	Flooding
Juniper Street Ejector Station	Juniper Street	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 1 storm surge	Flooding
Nayatt Point Ejector Sta-tion	Washington Road	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 1/2 storm surge	Flooding
Rumstick Ejector Station	Rumstick Road	Town	Flood – Coastal flood w/ velocity hazard (Zone VE) Hurricane – Category 1/2 storm surge	Flooding
Wampanoag Ejector Sta-tion	Wampanoag Trail	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 2 storm surge	Flooding
Elm Lane Grinder Station	Elm Lane	Town	Hurricane – Category 4 storm surge	Flooding
Nayatt Road Grinder Sta-tion	Nayatt Road	Town	Hurricane – Category 4 storm surge	Flooding
Pheasant Lane Grinder Station	Pheasant Lane	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 2 storm surge	Flooding

Critical Asset	Location	Owner-ship	Primary Natural Hazards	Primary Threat
Strawberry Drive Grinder Station	Strawberry Drive	Town	Flood – 100-year Flood Zone (AE) Hurricane – Category 2 storm surge	Flooding
National Grid Substation	Maple Avenue	National Grid	Hurricane – Category 2 storm surge Winter Storms	Wind, ice and snow
TRANSPORTATION				
Massasoit Avenue Bridge	Massasoit Avenue	State	Flood – 100-year Flood Zone (AE) Hurricane – Category 1/2 storm surge	Flooding
Barrington River Bridge	County Road/Rte. 114/103	State	Flood – 100-year Flood Zone (AE) Hurricane – Category 1 storm surge	Flooding
Warren River Bridge	County Road/Rte. 114/103	State	Flood – 100-year Flood Zone (AE) Hurricane – Category 1 storm surge	Flooding
Warren River Bike Path Bridge	Warren River north of Rte. 114/103	State	Flood – 100-year Flood Zone (AE) Hurricane – Category 1 storm surge	Flooding
Barrington River Bike Path Bridge	Barrington River north of Rte. 114/103	State	Flood – 100-year Flood Zone (AE) Hurricane – Category 1 storm surge	Flooding
Evacuation Routes	Various / Wampa-noag Trail in par-ticular	Town, State	Flood – 100-year Flood Zone (AE) Hurricane – Category 1 storm surge	Flooding
NATURAL RESOURCES				
Town Beach		Town	Flood – Coastal flood (Zone VE), 100-year Flood Zone (AE) Hurricane – Category 1 storm surge Erosion	Flooding, Coastal erosion
Latham Park		Town	Flood – Coastal flood (Zone VE), 100-year Flood Zone (AE) Hurricane – Category 1 storm surge Coastal Erosion	Flooding, Coastal erosion