Town of Bridgewater

Open Space and Recreation Plan Update

2017

DRAFT

Prepared for: Town of Bridgewater

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The Town of Bridgewater is a suburban community with an interesting array of athletic fields, open space, and parks within its borders. The Town strives to continue providing adequate and varied recreation opportunities to its people. The Town recognizes the needs to improve and upgrade existing recreation facilities and to continue preserving valuable open space resources.

This 2017 Open Space and Recreation Plan was prepared under the guidance of the Bridgewater Community & Economic Development Department and the Open Space and Recreation Plan Committee. It represents an update to the 2009 Open Space and Recreation Plan. Since the adoption of the prior Plan, the Town has embarked on a variety of initiatives to implement the recommendations set forth in that Plan. A list of accomplishments is included in Section 8, Goals and Objectives.

As required by the Guidelines of the Division of Conservation Services, this 2017 Plan updates the social and environmental profiles of the town, discusses influences of present growth and development trends, inventories existing conservation and recreation areas and facilities, and examines community recreation needs. The Plan refreshes community goals and objectives to preserve and enhance resources. Finally, it summarizes implementation actions in the Seven Year Action Plan towards achieving the goals.

The Plan finds that Bridgewater's major resources include:

- Various outdoor recreation facilities, such as athletic fields, playgrounds, and the golf course
- Significant water resources, such as Lake Nippenicket, Carver's Pond, and the other water bodies
- Town River/Matfield River/Taunton River system
- Larger Ch. 61 holdings and smaller scattered holdings
- Current and potential agricultural lands
- Old State Farm (approx. 425 acres)Bridgewater Correctional Complex protected under Article 97 of the State Constitution

Major factors in threatened and loss of open space and recreation opportunities are:

- Limited capacity in maintenance and upkeep of existing town recreation facilities
- Continuing large-lot residential development with one-acre lots required in the extensive Res. A/B District
- Increased land values, challenges of farming, and zoning which allows intensive non-residential uses on some farmland.

This Plan reaffirms Bridgewater's desire to meet the following goals and objectives:

Goal 1. To provide and enhance balanced recreational opportunities for active and passive recreation that meet the sports-oriented and nature-oriented needs of the community's age demographics.

Objectives:

1. Rehabilitate aging municipal recreation facilities.
2. Create additional recreation opportunities to meet emerging recreation needs.
3. Promote passive recreational use of the Town's conservation areas by enhancing public accessibility, creating and maintaining trails and viewpoints, and increasing waterfront access.
4. Appropriately staff the Town Parks and Recreation Department, and expand the cadre of volunteers to manage, maintain and improve the Town's recreation facilities and conservation lands.

Goal 2. To create and preserve a town-wide, regionally linked trails and parks system that connects neighborhoods with various open space and recreation amenities.

Objectives:

1. Inventory existing trails and open space areas in town to identify missing links between major resources through trail expansion.
2. Seek opportunities to add additional key open space parcels.
3. Establish a greenway system along Bridgewater's portions of the Matfield, Town, and Taunton Rivers as part of a joint effort with other riverside town(s).
4. Design and adopt a town-wide bicycle/pedestrian system that integrates with the regional Bay Circuit Trail network at the Iron Works Park.
5. Create additional parks and open space areas by repurposing vacant municipal properties, collaborating to acquire new key parcels, and integrating open spaces in new developments.

Goal 3. To increase public awareness of available open space and recreation opportunities.

Objectives:

1. Produce and maintain a clear, parcel-based open space and recreation resources map that shows access and parking locations, and primary activities at various public and non-profit holdings.
2. Establish a centralized open space and recreation information hub on the town website and at Town offices.
3. Create a consistent signage and wayfinding system for the town's publicly accessible open space and recreation areas.

4. Design and install interpretative displays at conservation properties in collaboration with private, non-profit, and state government stakeholders.

Goal 4. To preserve and cultivate public and private agricultural lands.

Objectives:

1. Protect historic agricultural land by encouraging sustainable land use practices such as Conservation Restrictions (CR), Agricultural Preservation Restriction (APR), and Transfer of Development Rights (TDR).

2. Utilize state programs to support investment in continuing farm operations.

3. Promote accessibility and usage of community gardens to foster learning opportunities for children and young adults about agriculture and local food.

Goal 5. To protect and preserve environmentally sensitive areas that promote local and regional ecological and environmental integrities.

Objectives:

1. Improve water quality of rivers and other surface water bodies.

2. Identify and protect parcels serving as wild life corridors and critical habitats from adverse development (e.g. Jolly Meadow between Flagg, Mae Ave. and Alexander Dr. from Bridgewater Correction Complex connect to Winter St and Carver's Pond Habitats).

3. Sustain current aquifer protection districts to protect the quality, capacity, and security of the public water supply.

4. Support Low Impact Design (LID) strategies to reduce runoff and maximize ground water recharge.

Statement of Purpose

The purpose of this plan is to guide the efforts to protect and enhance open space and recreation resources in the community. These efforts are intended to provide adequate recreation opportunities in or near most neighborhoods, to preserve the town's remaining rural landscape and character, and to protect precious natural resources such as wildlife habitat, agricultural lands, and water resources. The project is also done to ensure the Town's eligibility for state support in these endeavors through the Self Help (now LAND) Program, the Land and Water Conservation Fund, the Community Preservation Act, and any related resources.

The Planning Process and Public Participation

Planning Process

VHB, the consultant selected to prepare this plan, worked closely with the Bridgewater Community & Economic Development Department, Parks and Recreation Department, Conservation Commission, the Open Space and Recreation Committee, and the broader Bridgewater community throughout the planning process Periodic coordination meetings were held in the Municipal Office Building and via teleconference calls between various parties involved to ensure effective communications in preparation of the Plan.

The planning process included site visits to significant open space and recreation parcels in Bridgewater. The site visits were guided by Charlie Simonds, Superintendent of from the Parks and Recreation Departments and Carlton Hunt from the Open Space and Recreation Committee. The site tours provided a means of gaining insight into the condition, type, and quality of Bridgewater's open space and recreation resources.

Existing studies and reports were reviewed as they relate to the town's open space and recreation resources, such as the 2009 Open Space and Recreation Plan, the Recreation Needs Assessment completed by VHB in 2015, draft chapters of the on-going Master Plan Update as they became available, and the Town of Bridgewater Conservation Parkland System Histories and Action Plans 2002-2005, etc. VHB also incorporated relevant open space and recreation information updated by the town's prior planning consultant JM Goldson community Community preservation Preservation + planningPlanning, as appropriate.

The update of the Bridgewater Open Space and Recreation Plan was a highly collaborative effort that focused on how to best balance active and passive recreation needs as well as how to implement the Plan. The Plan was heavily shaped by the public participation portion of the planning process, which will be detailed in the next section.

Public Participation

Throughout the planning process, public input was sought through various communication channels in order to reach the broadest possible audience. The Town hosted two well-attended public forums that were advertised through the town website, various email lists, social media and print media. Both forums were held at the Town Council Chambers room in the recently rehabilitated historic Academy Building. The first meeting on September 26th focused on defining the community's vision and goals for the town's open space and recreation resources, while. the The second meeting on November 14th offered the public opportunities to discuss and prioritize implementation actions for the next seven years.

In addition to the public forums, the Town also launched an open space and recreation survey that was distributed via the Town's website, the Town's social media pages, email lists and through provision of print copies at Town offices. The survey was made available to the public from September to December to allow ample time for responses. A total of 355 responses were collected during the process, including both online survey responses and print survey responses. All survey results were tallied and analyzed by VHB to understand community concerns and needs. The survey results summary can be seen in Appendix A.

Enhanced Outreach and Public Participation

According to MassGIS and the 2010 U.S. Census data, there is no Environmental Justice population neighborhoods with high minority, non-English speaking, low-income, and foreign-born populations within the Town of Bridgewater. Therefore, no particular enhanced public outreach was taken during the planning process. However, the Town has been dedicated to an inclusive public engagement process to ensure an equal and just opportunity for all Bridgewater residents to participate in the planning process.

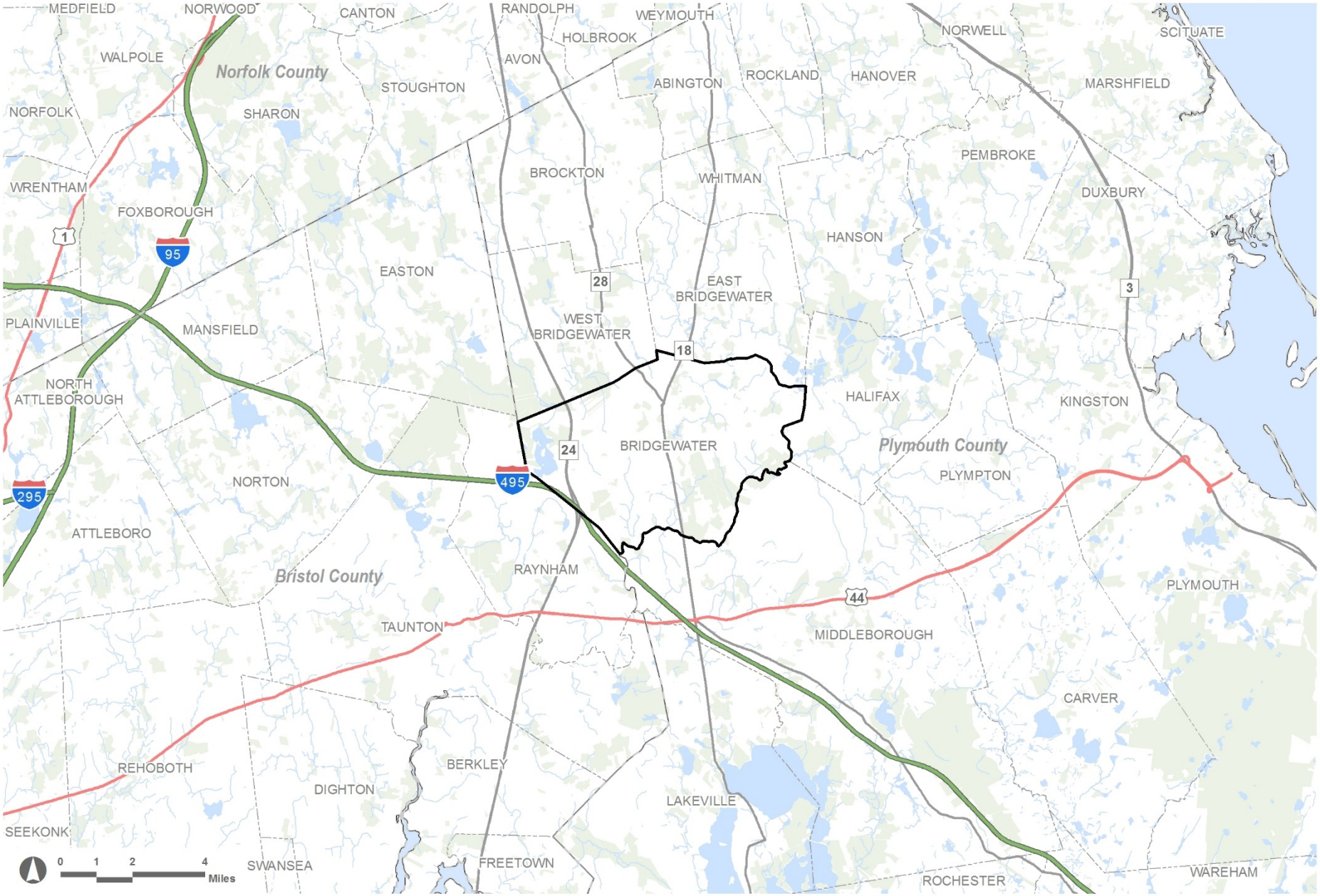
Regional Context

Physical Locations and Characteristics

Bridgewater is a suburban-rural town 23 miles south of Boston, eight miles south of Brockton, and 29 miles northeast of Providence, Rhode Island. It is home to 26,563 inhabitants as suggested by the 2010 U.S. Census. It houses two major state institutions - Bridgewater State University, which is the flagship of the Massachusetts State College and University System with 11,187 full-time students in 2014 (roughly 14% enrolling as graduate students and 86% as undergraduate students) and 1,033 full-time employees, and the Bridgewater Correctional Complex with about 2,200 inmates in 2010.

Bridgewater abuts West Bridgewater and East Bridgewater to the north, Raynham to the west, Halifax to the east, and Middleboro to the south. A major feature in the town is the Wild and Scenic Taunton River and its main tributaries, the Town and Matfield Rivers. The Taunton River begins at the junction of the Town River and the Matfield River northeast of the town center. The resulting Taunton River essentially wraps around Bridgewater forming its eastern and southern boundaries.

The town is served by a MBTA commuter rail station located within the Bridgewater State University campus to the southeast near Great Hill Drive. It also has regional highway access via the limited access Route 24 running north-south through the western portion of the town and the nearby outer-circumferential Route 495 (see **Map 1**). These roads provide good highway access to Boston, Brockton, Providence, and the rest of the region, while the rail service connects the town to Middleboro/Lakeville to the south and to Quincy/Boston/Cambridge and the entire MBTA transit system to the north. Such accessibility, combined with the town's other attractions, gives Bridgewater broad appeal as a place to live and partially drives its continued growth.



Source: MassGIS

Town of Bridgewater Open Space and Recreation Plan Update 2016

vhb

Map 1
Regional Context

Regional Resources

Open Space

Regional open space resources in nearby communities include the Blue Hills Reservation in Milton and Quincy, the many Easton Conservation areas, Ames Nowell State Park in Abington, D.W. Field Park in Avon and Brockton, Peterson's Swamp in Halifax and Plympton, the Burrage Wildlife Management Area in Hanson and Halifax, the extensive Hockomock Swamp, Massasoit State Forest in Raynham, the open land on the Bridgewater Correctional Complex (BCC) and adjacent extensive private farmland, along with the remaining rural landscape, particularly in Middleborough to the south, along with the whole Town River/Taunton River corridor.

Taunton River Watershed

Bridgewater is in the Taunton River Basin and all streams in the Town eventually flow to the Taunton River. The Town River begins at Lake Nippenicket in the Bridgewater portion of the Hockomock Swamp and flows southeasterly through West Bridgewater, joining the Matfield River in Bridgewater to form the Taunton River. The Taunton River then essentially embraces the town wrapping around its eastern and southern borders.

South Shore and Narragansett Bay

The Taunton River was designated a Federal Wild and Scenic River in 2000, identified for its "outstandingly remarkable" values including agriculture, ecology, and biological diversity. It is the longest undammed coastal river in New England and is host to over 154 species of birds and 45 species of fish. The designation protects the free-flowing condition of the river for the enjoyment of present and future generations.

Hockomock Swamp

The entire Hockomock Swamp, the largest swamp in New England at 16,900 acres, covers portions of Raynham, Norton, Taunton, Easton, Bridgewater, and West Bridgewater with approximately 1,131 acres in the northwestern corner of Bridgewater excluding the surface of Lake Nippenicket. The swamp is one of the largest inland state-designated Area of Critical Environmental Concern (ACEC). The designation, largely the work of interested Bridgewater citizens and officials, was approved by the Secretary of Environmental Affairs in 1990. This requires increased scrutiny under the Wetlands Protection Act and other applicable regulations.

Although it is zoned Residential A/B in Bridgewater (as compared to Industrial in West Bridgewater to the north), the Hockomock Swamp is an important wetland and is protected against inappropriate development by the ACEC designation as well as the town and state owned and protected land – Keith Homestead, Lake Nippenicket Preserve, and Hockomock Swamp Wildlife Management Area.

The swamp is home to several endangered species according to the state's Natural Heritage Program and serves as critical habitat and a vital water resource for wildlife. The swamp reduces flooding by storing water and provides some recharge to underlying aquifers, thereby contributing to drinking water supplies, and helping to maintain stream flow.

Bridgewater's western portions of the swamp drain directly into Lake Nippenicket and then to the Town River and on to the Taunton River. The swamp areas east of the Lake drain more directly to the Hockomock River and the Town River.

Bay Circuit Trail

The Bay Circuit Trail was conceived in 1929 by then Secretary of the Trustees of Reservations Charles W. Eliot III, a disciple of Frederick Law Olmsted. The concept was to have an arc of parks and conservation land linked by continuous trails, waterways, and scenic drives from the North Shore to Duxbury Bay (much as the Emerald Necklace connects neighborhoods and parks within Boston). These holdings would approximate a regional greenbelt around greater Boston and provide access to the heritage and character of the New England countryside. The contemporary concept is necessarily more modest, as many opportunities for major holdings are gone.

The Bay Circuit Trail runs through adopted and potential segments in West Bridgewater and East Bridgewater to the north and then dips into Bridgewater at Main Street and High Street to include the Stanley Iron Works Park on the Town River. Collectively, this land and water trail is know as the Nunckatessett Greenway. Over 50 communities are connected by the 100200-mile Trail. However, there are gaps where continuous, designated year-round trails are still needed, including some in East Bridgewater, West Bridgewater and Pembroke.

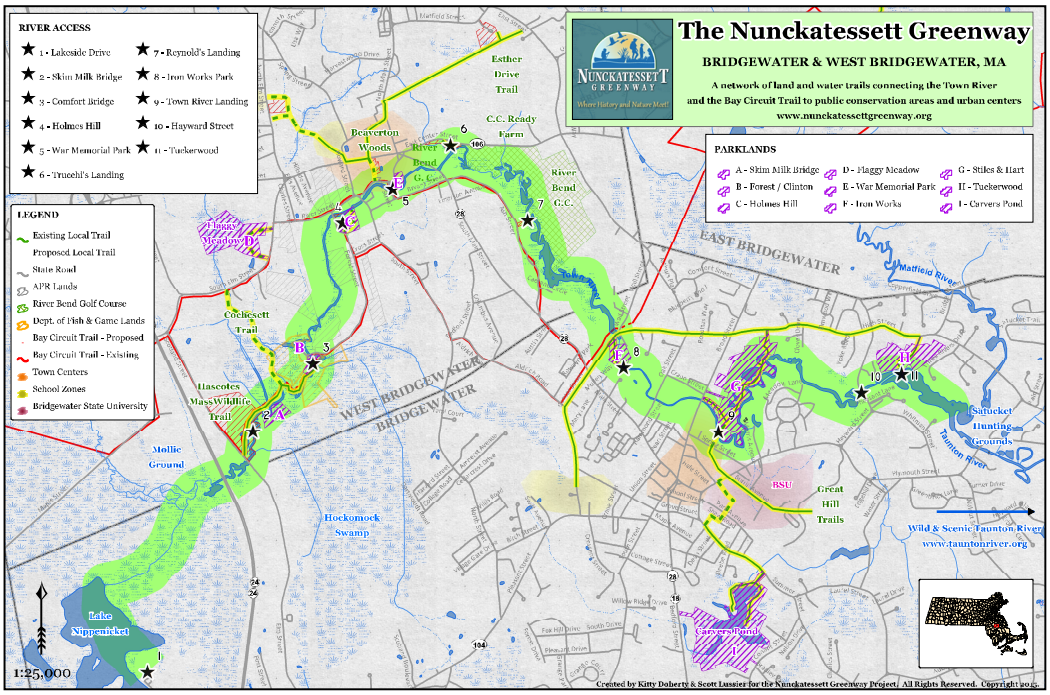
The Bay Circuit Alliance, a volunteer implementing body, stresses continuous trails through the Circuit and connected scenic areas, rather than a wide greenbelt. However, the Alliance still encourages and supports open space acquisition and protection of key resources along the trail where possible, and seeks to integrate the trail with such resources.

The project's advocates envision the Greenway providing community members greater access to the natural as well as historic elements of their area, such as the Haseotes MassWildlife Trail, Holmes' Hill, War Memorial Park, Iron Works Park, and Bridgewater's Stiles & Hart Conservation Parkland. The Natural Resources Trust of Bridgewater through its Nunckatessett Greenway initiative has been fostering a majority of the project's development.

Nunckatessett Greenway

Prior open space plans have proposed the establishment of a greenbelt along the Town River and a similar strategy was proposed in West Bridgewater. The towns of Bridgewater and W. Bridgewater embrace a vision for the greenway, known as the Nunckatessett Greenway, with the goal of linking town-owned conservation areas to the nationally recognized Bay Circuit Trail and the Town River to create one contiguous, walkable or paddleable trail and parkland system (see **Figure 1**).

Figure 1 Map of the envisioned Nunckatessett Greenway



Source: The Nunckatessett Greenway Project, last updated March 2016

The Greenway would link multiple sites of special interest including Haseotes MassWildlife Trail, Flaggy Meadow, Town River Landing, Holmes Hill and War Memorial Park in West Bridgewater and Iron Works Park and Stiles and Hart Conservation Area in Bridgewater. In addition, the Greenway includes ten 11 river access locations for car-top boat put-ins such as those at Iron Works Park, Town River Landing, Hayward Street, and Tuckerwood. The Nunckatesset Greenway Initiative is a subcommittee of the Natural Resources Trust of Bridgewater that acts as an advisor, coordinator and conduit between partnering groups and volunteer participants to implement the vision for the Greenway. The group is spearheading development of an Action Plan for the Greenway.

History of the community

Overview

Old Bridgewater was the first inland settlement in Massachusetts, established in 1656 by Myles Standish. Old Bridgewater, comprised of the current day Bridgewater, West Bridgewater, Brockton, and East Bridgewater, was purchased from Chief Massasoit of the

Wampanoag tribe by Captain Standish and 54 other purchasers including John Washburn, Sr., John, Washburn, Jr., John Alden, William and John Bradford, Love Brewster, Experience Mitchell, Edmond Chandler, William and John Paybody in 1649. The following account is excerpted from a weekly newspaper feature, "Story of an Old Town" in the Bridgewater Independent (April 15, 1948):

"Chickataubut, the Indian chieftain ...had been acclaimed "the greatest sagamore in the country" and his favorite encampment was in the southern part of what was later Old Bridgewater, on the banks of the great river, Titicut (today's Taunton River). His domain extended ...almost to Duxbury and from the Nippenicket in a straight line to the headwaters of the Charles River.

What a choice land was this with fertile fields, glorious woodland to warm the hearts of the huntsman, and streams certain to beguile the fishermen too long limited to the offerings from the sea. Yes, and the great cedar swamps like the environs of the Nippenicket, with a rich offering of timber and shelter, too, for man and the beasts of the forest. fresh

Captain Myles Standish, Samuel Nash, and Constant Southworth ...(made) the purchase ... as seen by the deed dated 23rd of March, 1649: "Witness these presense that I, Ousamequin (a.k.a. Massasoit), sachem of the country of Poconocket... sold... on behalf of all the townsmen of Duxbury, aforesaid, a tract of land usually called Satucket... that is to say, from the wear at Satucket seven miles due east, and from the said wear seven miles due west, and from the said wear seven miles due north, and from the said wear seven miles due south ...In consideration of the aforesaid bargain and sale, we the said Myles Standish, Samuel Nash and Constant Southworth do bind ourselves to pay unto the said Ousamequin (a.k. a. Massasoit) for and in consideration of the said tract of land as followeth:

7 coats, a yard and a 1h in each coat, 9 hatchets, 8 hoes, 20 knives, 4 moose skins, 10 yards and ...of cotton." [1]

The payment does not reflect the land's value and the settlers understood the worth of farmable soils and water. Later observers have wondered whetherunderstood that the Native Americans thought that they were selling just the right to use it freely as they themselves did, not exclusive ownership of the land. Through additional purchases from them, Old Bridgewater grew to 96 square miles. In 1706 Abington broke away, eventually followed by the present East Bridgewater, West Bridgewater, and North Bridgewater (now Brockton). Whitman later separated from Abington.

The townBridgewater was chartered in 1656 and grew as a farming and manufacturing community with activities based on clay, bog iron and water power. Foundries were developed north of downtown in the Stanley area where a deteriorated dam now forms a major pond on the Town River backing into West Bridgewater. Other industries making nails, shoes, and bricks grew in the late 1800s. The extensive riverside clay deposits led to bricks being made at the present Stiles and Hart Conservation Area, formerly known as the Plymouth County Agricultural Society Fairgrounds, just east of Rte. 18 and at the continuing Stiles and Hart Brick works along the Taunton River south of Titicut Street.

[1] John Washburn's history indicates the purchase was for 7 coats, 1 and 1/2 yards in a coat, 9 hatchets, 8 hoes, 20 knives, 4 moose skins and 10 & 1/2 yards cotton (cloth). The transaction was signed by Massasoit for the Natives, and by Standish, Samuel Nash, and Constance Southworth for the colonists 23 March 1649 after seven years consideration by the Colonial Court, the purchasers, and the Natives. http://lbf5591.tripod.com/id65.html

As elsewhere, settlement patterns and road building through the years have followed the high ground and avoided unbuildable land in low, wet areas around the town. As a result, most of the existing vacant land and protected open space is concentrated around ponds, rivers, and wetlands, and on abandoned farm land. The later Nineteenth Century saw the formation of two major institutions in Bridgewater, the Normal School which became Bridgewater State CollegeUniversity and the various state facilities now comprising the Bridgewater Correctional Complex, a major employer and land owner.

Bridgewater continued growing into the 20th Century with extensive agriculture, large dairyingdairy farms, scattered long-term industries, and a slowly growing population. Late in the century agriculture declined with reduced profitability and rising land values for development. A major reduction followed the US Department of Agriculture's Whole Herd Buyout program of the late 1980s when the Department bought out productive herds, reportedly including Cumberland Farms' large operation, to reduce milk production. The last thirty years have seen a continuing loss of agriculture even on the most suitable soils.

Table 1 Historic Population Change in Bridgewater

Year	Population	% Increase over Decade
1950	9,512	-
1960	10,276	7.7
1970	12,902	25.6
1980	17,202	33.3
1990	21,249	23.5
2000	25,185	18.5

Source: US Census, includes college university and correctional populations

As noted in the 2002 Bridgewater Master Plan, "During the 1960s, with the construction of the Interstate Highway System (including Route 495) and improvements to the State Highway System (Route 24) the town began to grow. By 1970 it had reached a population of 12,902, an increase of over 25% in ten years. The growing highway system made possible the connection of Bridgewater to major employment centers such as Boston and Providence, both under an hour away by automobile." The highways also attracted more suburban development to the western portion of the town. Growth increased in the 1970s and has continued as shown in **Table 1**.

The late 1990s saw restoration of commuter rail service between Boston and Middleboro/ Lakeville. The original station off of Route 18, just north of downtown, was left in its recent commercial use and a new station and large parking area were built further from the town center between the State CollegeUniversity's east and west campuses.

Much of the housing growth has been suburban growth reflecting out-migration from the Brockton and Greater Boston areas with high land consumption levels related to much of the town being zoned for one-acre lots.

In April 2005, Bridgewater adopted the Community Preservation Act (CPA) to fund a variety of affordable housing, historic preservation, open space, and recreation initiatives. This

legislation offers much potential for saving key open space and historic resources while adding or preserving affordable housing. Since its enactment in Bridgewater, CPA funds have been used to fund a variety of projects in the community, including the construction of new softball fields, the purchase of a Conservation Restriction at the Murray-Needs Farm as well as acquisition of the Keith Homestead, and the rehabilitation of the Stanley Iron Works Stone Building, among others.

Historic Resources

Bridgewater currently has 378 historic resources documented at the MA Historical Commission (MACRIS.) Two of those, the Stanley Iron Works and the McElwain School, were listed on the National Register of Historic Places in 2002 and 2013, respectively. Forty-nine of the historic resources were constructed in the 18th century, including the Tory House (located in Bridgewater's Central Square and built in 1710), the Bridgewater Old Graveyard (on Summer Street), and the Keith Homestead, a Georgian-style house at the end of Lakeside Drive that has been protected through town acquisition with CPA funds and subsequent resale to a private owner with a Preservation Restriction.

A vast majority (263) of the town's historic resources date back to the 19th century. Most prominent of these is the Academy Building on Central Square. In 1986 the town created a Historic District containing 96 structures around the Center. Despite the Historic District Commission's efforts and citizen efforts, two significant houses, the 1822 Colonel Abram Washburn House and the Nahum Stetson House on Summer Street downtown, were demolished for commercial development allowed as-of-right under a then recent zoning bylaw revision. Currently, the Central Square is in the process of dramatic rehabilitation as recommended in the 2014 Downtown Revitalization Plan with the help of CPA funds. The Central Square Historic District is shown on the map of Scenic Resources and Unique Features in Section 4 as Local Historic District.

Located across South Street from the Academy Building in Central Square is the Memorial Building, a Romanesque Revival-style building originally constructed as the public library in 1881. Also in the Central Square area is the New Jerusalem Church, a prominent Gothic Revival on Bedford Street that was built in 1871. Outside of Central Square on School Street is the First Parish, a Greek Revival-style church, constructed in 1845. Many residencies in Central Square and surrounding neighborhoods date to the 1850s and 60s. Various 20th century resources include many Bridgewater State University sites, such as the Boyden Gymnasium and Woodward and Normal Halls, as well as a few homes on Summer Street and the J. Franklin McElwain House, which is owned by the University.

Another historic resource from Old Bridgewater's early days is Sachem's Rock on the Satucket River near the center of the present East Bridgewater. It is the spot where the Indian Sachem, Massasoit, met with Captain Myles Standish to sell the original Bridgewater lands to the Plymouth Colony Pilgrims as discussed above.

Population Characteristics

The citizens of a community, as well as transient visitors who are drawn to town for a variety of recreation opportunities, are potentially the beneficiaries of an adequate, well-balanced set of recreation resources provided that a town understands and has addressed the needs of those user groups. Forward looking population trends are vital to anticipating and being responsive to future projections of recreation needs.

Overall Population Growth and Trends

Bridgewater's overall population is relatively affluent, predominantly white, relatively young, and rapidly growing. From 1950 to 1970 the total population, including that in institutions, grew gradually from 9,512 to 12,902. Growth then accelerated to 17,202 by 1980, 21,249 by 1990 and 25,185 by 2000, with an average growth rate of 25 percent per decade. The growth rate significantly slowed down to 5.5 percent between 2000 and 2010 where the town's population grew to 26,563 by 2010. The slow growth trend is likely to continue for the next few decades, as projected by the Massachusetts Department of Transportation (MassDOT). See **Table 2**.

Table 2 Town of Bridgewater Population Change and Projection

Year	Population	Numerical Change	Rate Change
1950	9,512	-	-
1960	10,276	764	8.0%
1970	12,902	2,635	25.6%
1980	17,202	4,291	33.2%
1990	21,249	4,047	23.5%
2000	25,185	3,936	18.5%
2010	26,563	1,378	5.5%
2020 projection	27,997	1,434	5.4%
2030 projection	28,674	677	2.4%

Source: US Census, projections by MassDOT

Population Density

With the town's area fixed at 28.14 square miles, the overall density, reflecting developed land and undeveloped land, rose from 338 persons/square-mile in 1950 to the 944 persons/square mile in 2010. Most neighborhoods are far less dense than this suggests because these figures reflect the whole community, much of which is undeveloped or in very low density uses. The resulting patterns are discussed below under Land Use Patterns and Trends, and the implications for open space and recreation needs are noted in the Section 7 Analysis of Needs.

Age Composition

A further look into the change of the median age of Bridgewater's population as well as changes in population composition reveals that Bridgewater has experienced an aging population over the past decade, a similar trend seen in many New England communities. The median age of Bridgewater's population was 33.6 in 2000, which increased to 36.7 by 2010. As shown in **Figure 2**, the population in Bridgewater over 45 years old increased significantly from 2000 to 2010 while the population of younger children under 10 years old and adults between 25 and 44 decreased. Despite the aging trend, Bridgewater's population is still young. The largest segment of the population, which includes teenage and younger adults between 15 and 24 years old, increased between 2000 and 2010. In addition, over 62 percent of the total population is less than 45 years old.

Figure 2 Population Change by Age Group , 2000-2010

Source: 2000 and 2010 U.S. Census

The significant loss of population under 10 and between the ages of 25-44 indicates that Bridgewater experienced a decline in families and young professionals. The gain in college-age population can be attributed to the growth trend in Bridgewater State University – the total student enrollment increased by roughly 27% between 2000 and 2010 from about 8,800 total students to 11,200, and the resident students living on campus increased 86% from 1,520 to 2,832 students. In 2013, overall enrollment increased to 11,267 students, with 3,180 resident students and 8,087 commuter students. The growth in resident students is attributed to construction of two new residence halls (Bridgewater State University Office of Institutional Research, October 2013.)

These population changes indicate increased demands for recreation resources that suit the particular needs of both the senior population, such as passive recreation areas and/or trails, and teenage and young adult populations, such as active recreation and athletic facilities.

Income Characteristics

The median family income was $50,080 in 1990 (1989 data) compared to $47,273 for the same year in the OCPC region and $44,367 statewide. By 2000 (1999 data) it had grown by 45.34% to $73,953 compared to a regional increase of 42.43% to $67,331, and a lesser state-wide increase of 38.98% to $61,664. According to the American Community Survey estimates 2007-2011, the median family income was $88,697, a 36% increase from 2000 (see **Table 4**).

Table 4 Bridgewater Household Income, 2000-2011

Category	2000	2007-2011	$ Change	% Change
Median Household (HH) Income				
Bridgewater	$65,318	$88,697	$23,379	36%
Owner Occupied	$74,443	$98,940	$24,497	33%
Renter Occupied	$39,453	$53,178	$13,725	35%
Plymouth County	$55,615	$74,698	$19,083	34%
Boston-Cambridge-Quincy, MA-NH Metro Area*	$52,792	$71,865	$19,073	36%
Median Family Income				
Bridgewater	$73,953	$101,641	$27,688	37%
Plymouth County	$65,554	$88,110	$22,556	34%
Boston-Cambridge-Quincy, MA-NH Metro Area	$64,538	$90,739	$26,201	41%
*2000 Metropolitan Area data is for Boston-Worcester-Lawrence, MA-NH-ME-CT CMSA				

Sources: 2000 US Census; 2007-2011 American Community Survey 5-Year Estimates, Table B19013, B25119, B19113

Race and Ethnicity

A vast majority (91.0%) of Bridgewater's population is white, non-Hispanic. 4.9% of the population is African American, and 3.2% is Hispanic or Latino (see **Table 3**). There are two census blocks of greater ethnic diversity in Bridgewater that can be explained by the institutional populations of Bridgewater: in the northern section, Bridgewater State University, and in the southern portion, the Bridgewater Correctional Complex between Summer Street and Route 18.

Table 3 Bridgewat er Population by Race/Ethnicity, 2010

Total	White	African-Americ an	Americ an Indian or Alaska Native	Asian	Native Hawaii an or Other Pacific Islande rs	Some Other Race	Two or More Races	Hispan ic or Latino
26,563	24,163	1,292	62	328	0	294	424	838
100 %	91.0%	4.9%	.2%	1.2%	0%	1.1%	1.6	3.2%

Source: U.S. Census, 2010 Table QT-P3.

Growth and Development Patterns

Land Use Patterns and Trends

The town's land uses are primarily residential and institutional with some remaining agriculture, and with concentrations of commercial uses in the town center and along Routes 18 and 104, along with growing industrial and distribution uses on former farmland along Elm Street. The Center is visually strong and accommodates the Town's main civic uses, but most commercial activity is along Route 18 with a concentration of older firms to the north and a growing number of scattered highway-oriented commercial and light industrial uses to the south.

Other commercial or industrial development includes the Bridgewater Industrial Park northeast of the Route 24 interchange, the Scotland Industrial Park off of Pleasant St, and the Claremont project in the state's Priority Development Area near the Route 24 and 104 interchange. These are generally remote from the flood plain in contrast to earlier water power-based industry in the Stanley area where the Town River enters Bridgewater, and at Paper Mill Village on Route 104, Plymouth Street just below the junction of the Town and Matfield Rivers where the Taunton River begins.

Major institutional uses are Bridgewater State University just east of downtown on both sides of the railroad tracks, and the extensive Bridgewater Correctional Complex in the south central (Titicut) portion of the town between Route 18 and the Taunton River.

The observations in the 1984 Bridgewater Master Plan Update remain true; "Bridgewater's residential development continues to combine a compact medium-density town center with a roughly radial pattern of frontage ("Form A") development along existing streets and a number of small subdivisions." Older moderate density neighborhoods are found around the Center and along the Route 28 corridor to the north. Elsewhere, new neighborhoods with one acre lots are found in peripheral areas, particularly in the western portions of town. Only a scattering of lots around the center are under the 10,000 square foot minimum in the small CBD district and are grandfathered. The close-in R-C and R-D neighborhoods require at least 18,500 square feet and the rest of the community requires at least an acre (43,560 Square feet). As a result, most new neighborhoods are being built at a density of one unit per acre or less.

Declining Farm Land

Between 1971 and 2013, acreage of farmland in Bridgewater declined from close to 3,000 acres to just over 1,000 acres.[2][3] Working farms include the Murray and Needs properties on North Street and the Hanson Farm on Route 104. These agricultural areas and the acres of non-forested wetland make up the majority of the town's open vistas.

Figure 3 Acreage Change of Farmland in Bridgewater, 1971-2013

Sources: 1971 MacConnell UMass Map Down Project; 1991 & 1999 MASS GIS; 2013 Bridgewater Assessors.
Note: This data was not correlated with Chapter 61 parcel data.

Residential and institutional growth have claimed multiple agricultural properties and other open space including portions of the Imhoff Farm, much of the Homenook Farm, the Perkins land (Calthrop Trust Property off of Cherry Street), the McIntyre Farm, the Pole Farm, the Pawlowski Farm, much of the Wyman Farm, and woodlands on Pine and Conant Streets. According to data provided by the Bridgewater Community & Economic Development Department based on aerial photography, there are approximately 1,049 acres of farmland extant in Bridgewater as of November 2013, including cranberry bogs, fields for hay and corn, one tree farm, and two that appear fallow.

There have been local efforts to preserve farmlands. For example, the Town purchased the Hogg Farm in 2000 for municipal and recreational use, purchased the historic Keith Homestead and Farm on the shores of Lake Nippenicket and adjacent land in 2011 for historic preservation and open space/recreational uses, and acquired a Conservation Restriction to protect the Murray and Needs farms on North Street in 2015. In addition, there are approximately 220 acres of private agricultural land currently enrolled in the state Chapter 61A program.

Buildout Implications

[2] Source: 1971 figures based on MacConnell UMass Mass Map Down Project; 1991 and 1999 figures based on MASS GIS; 2013 figures based on Bridgewater Community & Economic Development Department and Bridgewater Assessor database.
[3] Note: Due to reliance on a variety of sources, namely UMass, Mass GIS, and Bridgewater Assessors, the acreage determinations are based on different methodologies and caution is required when making direct comparisons of the data.

The Year 2000 Buildout Analysis sponsored by the state's Executive Office of Environmental Affairs sought to determine how much growth the town could experience given present land use patterns and zoning regulations. The process excluded land that was permanently protected against development, wetlands or land subject to the Rivers Protection Act, but did not reduce potential development according to sewer or water capacity or soil limitations for septic systems. It did make some adjustments for development constraints such as land ownership patterns and access to roadways.

The Analysis found 8,382 potentially developable acres accommodating 7,610 housing units and 19,538 new residents - a significant 72.9% increase - including 3,517 added school children. There was also the potential for an additional 31,165,899 square feet of commercial/industrial space.

The combined potential residential and commercial/industrial space would demand 3.55 MGD additional gallons of water - far beyond the system's present capacities. The housing alone would demand 1.3 MGD. However not everyone is on town water and many houses, especially in outlying areas, could rely on private wells. This theoretical potential growth would also involve 76 miles of added roadways.

Such growth, region-wide or in the town, is unlikely since it assumes use of all available land and an infinite regional demand for housing and commercial space. On the other hand, it also reflects relatively restrictive zoning. With densities like the 20+ units/acre allowed with the Waterford Village Smart Growth Overlay district or even the 4+ units/acre with the MHEC district, far more people could be housed on less land. In addition, Bridgewater's many locational advantages and attractions could attract more new residents than in many communities despite current budget problems.

In any case, such a buildout would drastically change the character of the community by filling all buildable land with development. The Town would lose important aesthetic character and be transformed into a built-out suburb, leaving only presently protected lands and important wetlands as relief.

On the ecological side the extensive paving accompanying such a build-out would increase runoff, decreasing recharge and depressing water tables unless most development is done as Low Impact Development (LID). This would feature a maximum of recharge and integration of vegetation into stormwater management.

The theoretical build-out would also increase water consumption, particularly if homeowners seek to water lawns all summer despite present prohibitions. Beyond this the blanketing of the landscape with housing and businesses would break up areas of contiguous forest or rare grasslands wildlife habitat. In addition, the probable prevalence of predatory pets (cats and dogs) would have a negative impact on remaining wildlife. In addition, the presently required low-density development would increase local trips and with them increase fuel consumption and air quality impacts and add to the global warming effects of greater carbon dioxide emissions.

These remote prospects, or even the more probable lesser growth, make it important to identify sites and systems of holdings needed to create an ideal open space system, or at least an achievable one, and to proceed to accomplish it.

Zoning Regulations

Zoning District Descriptions

The Planned Development District

This district mapped just south of Lake Nippenicket allows mixed industrial/commercial/institutional/residential parks by Special Permit in "order to achieve mixed significant revenue or employment benefits without adverse impacts on their neighborhoods or on the Town's natural resources." It requires tracts of at least 10 acres and individual building sites of at least five acres except for house lots which must meet the one-acre requirement and other standards of the R-A/B District.

The guidelines require a 200-foot screening buffer next to most public ways. At the same time building heights and massing are to be compatible with views from adjacent ways while building materials blend with the setting or complement it. Thus the development should not visually affect Lake Nippenickett.

While the maximum 25% lot coverage will leave much land open, there are no requirements that it blend into any adjacent open space. Similarly, the pedestrian circulation system requires access to all parts of the development and through any open space areas, but does not require connections to surrounding developments or neighborhoods. The allowed houses on acre lots do not leave as much completely open land as would townhouses or apartments at such a density.

In practice, developers seeking the required special permits have proposed setting aside connected land areas for rare wildlife such as certain turtle species.

Mobile Home Elderly Community District

This mapped district allows communities of mobile homes (actually large one-story modular houses, not readily-moved trailers) for persons 55 years old or older. The parcels must have at least 50 acres (75% upland) with virtual lots of 7,000 square feet, 90-foot natural buffers against any public way, and preservation of 20% of the site as open space. The provisions do not specify the relationship of the preserved land to development or any open space in surrounding neighborhoods, but this might be dealt with through the required special permit. The District is mapped over much of the former Wyman Farm but does not affect the Wyman Meadow holdings.

Open Space Community Development

These provisions aim to protect "the most significant natural or scenic features" of a site that would otherwise be vulnerable to development. They require a Special Permit from the Planning Board and may be applied in any R-A/B, R-C or R-D residential district.

This cluster bylaw requires a minimum of 15 acres in the R-A/B District and 10 acres in the R-C and R-D Districts, and is limited to the number of units allowed in a conventional development (except that there may be 25% more units in an Adult Retirement Village variation). Lots may be reduced to half normal size with the saved land (at least 35% of the total) going to protected common open space. The land may be held by a community association, a non-profit open space organization or the town., but iIf it is agricultural land,

it may retained by the owners for continued farming subject to sale of the development rights (as with an Agricultural Preservation Restriction). This can help to preserve working farm land at the cost of usable neighborhood open space.

The design is intended to approximate a village with houses facing the street, backing onto protected open space and focusing on a central open space. "Whenever feasible land along public ways shall be included within an open space community and be largely preserved in their natural state or be appropriately landscaped." The approach's benefits can be extended if the preserved open land abuts the town's protected open space, thereby extending the effect and benefits of each and giving residents direct access to public open space and allowing citizens access to the project's protected land.

Gateway Business District

This is mapped over former Industrial 1-A and Residential-A/B land on Route 104 from Elm Street to Prospect Street. This allows office uses including creation of new space subject to site plan review design guidelines intended to protect the architectural and historic character of the area. These include visual and sound buffers against adjacent residential properties, sign restrictions, visually acceptable parking layouts, and low-impact parking design. Though mapped as a basic district with no other districts shown below it, it is referred to as "the overlay district" in Section 3.34.6.

East Gateway Business District

This mapped district intends to preserve and maintain the historic traditional New England character of the neighborhood that defines the gateways into Bridgewater while facilitating economic development, minimizing traffic impacts and utilizing the advantage of the highly visible and accessible location. Site plan approval for commercial uses in this district will emphasize shared driveways, parking facilities in the rear and sides of buildings, preservation of historic architecture, agricultural resources and rural character.

Elm Street Industrial District Overlay

The town has also mapped extensive farmland along Elm Street for limited office, commercial, and industrial uses (excluding housing) just east of Route 24, and over present Industrial - A Zoning. It is shown on the zoning map as "EOD" (Economic Opportunity District) and is the area the town has proposed as a Priority Development Site under Chapter 43D's Expedited Permitting program. However, thatThis program only requires designating Priority Development Areas within whichand permitting decisions must be made within 180 days, not creating an actual zoning district.

Waterford Village Smart Growth Overlay District (WVSGOD)

This district supports a proposed Ch. 40R rental residential project on "Substantially Developed" and "New Development" sub-districts requiring densities of 20 and 22.5 units/acre respectively. The sub-districts include the present developed land and adjacent land fronting on the Town River. Varied commercial uses are allowed on the land near Route 104. The housing may include altered, extended, reconstructed or expanded existing development with buildings of up to 70 feet high and a minimum lot area/dwelling of 1000 square feet.

The projects are nominally allowed as as-of-right subject to very detailed guidelines and approval by a Plan Approval Authority (PAA), in this case the Planning Board. The PAA may disapprove a plan for basic omissions, failure to meet the District's standards, or the impossibility of adequately mitigating adverse impacts. The high density allowed may make it possible to preserve much land along the Town River and interested bodies should participate actively in the project review.

Business-B

This district, mapped along Route 18 from just south of Flagg Street to Cottage Street requires 10,000 square foot lots, requires special permits for most residential uses, and allows most commercial uses, excluding only space-consuming or hazardous uses such as convention centers, large-scale laundries/dry cleaners, bottling plants, trucking terminals, open storage and uses "detrimental to the health, safety and welfare of the public".

South Business District

This district, mapped along Route 18 south of Flagg Street, aims to accommodate major uses. It requires lots of 40,000 square feet, prohibits or requires special permits for most residential issues, allows most commercial uses as-of-right or by special permit including convention centers, bottling plants, and trucking terminals. In order to reduce impacts on Route 18 it requires the 40,000 sq. ft. only for lots obtaining access from Route 18 and allows 10,000 sq. ft. lots along streets "approved under the Subdivision Control Law," i.e., on back land.

Central Business District

The CBD District is mapped over the area north and east of the Common /Central Square[4]. The CBD District requires only 10,000 square-foot lots and may reduce area, frontage and yard requirements by special permit from the Planning Board where consistent with adopted downtown land use plans and guidelines. Therefore, it could allow traditional 0-lot line development close to the street[5].

The District allows some residential uses by special permit. The district allows multi-family housing as part of the Mixed Use Zoning Bylaw, discussed above. The CBD also allows most office or commercial uses as-of-right or by special permit, but excludes veterinarians, outdoor storage or automotive or marine uses, laundries, printers and publishers and various space- consumers like trucking terminals, and contractors' yards, and uses "detrimental to the health, safety and welfare of the public". Thus it excludes uses which would rarely be in a downtown along with some like publishers which could fit well.

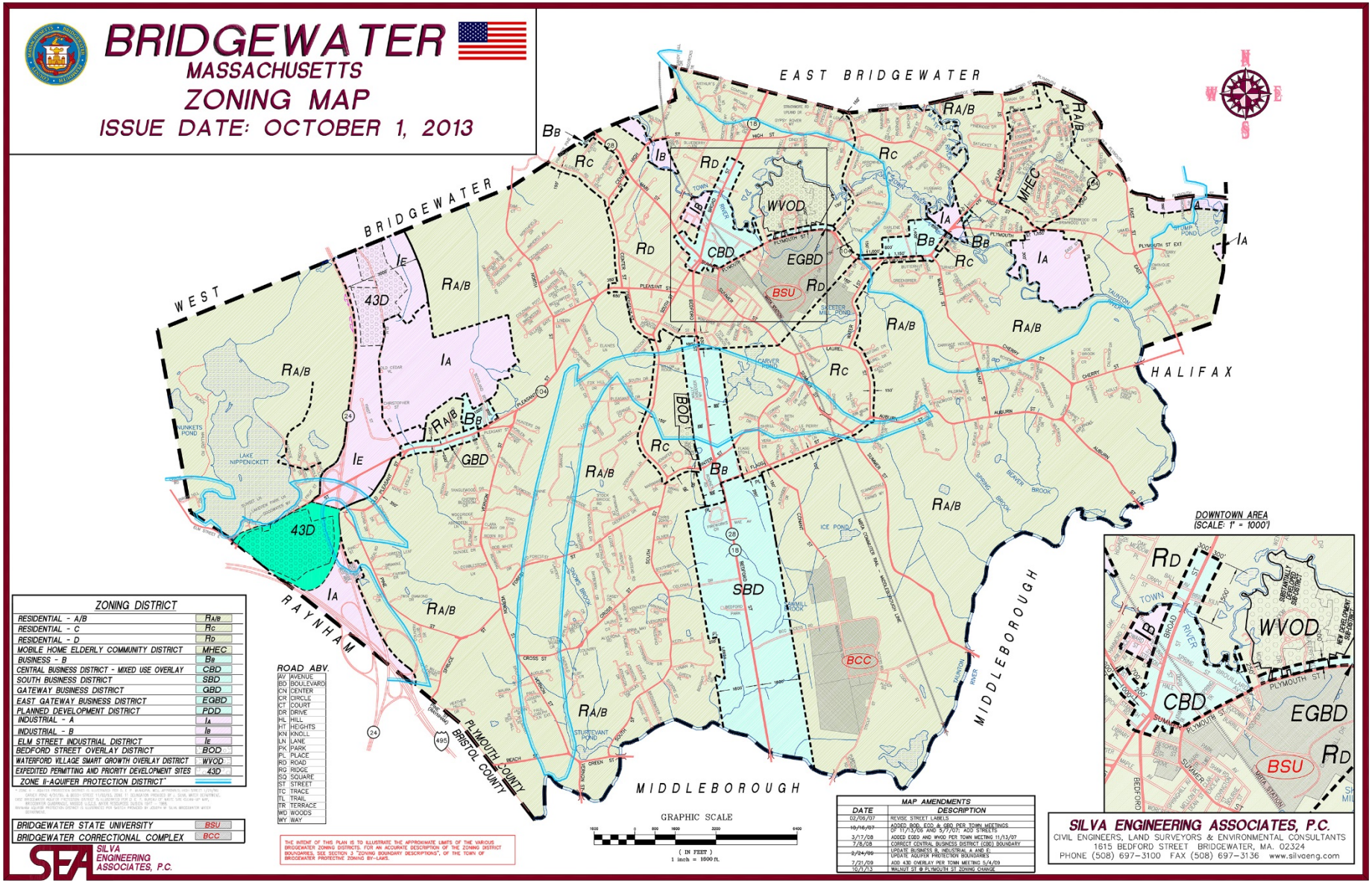
Bedford Street (TDR) Overlay District (BSOD)

The BSOD is mapped just west of the southern portion of the B-B District, thereby roughly doubling the depth of commercial zoning at that point with the intent to "facilitate the expansion of a commercial node along Bedford Street, enabling high quality commercial development at the location while minimizing adverse impacts on natural resources, in

[4] However, it is no longer mapped over the heart of downtown around the Square itself, as it was on the Zoning Map updated through January 1998. That area is now mapped R-D requiring 18,500 sq. ft. lots and excluding most commercial uses
[5] Town of Bridgewater, Massachusetts Zoning By-Laws Latest Revision July 22, 2016

particular the groundwater resources in the [nearby] Aquifer Protection District." It would do this partly through the use of Transferable Development Rights.

Map 2 Town of Bridgewater Zoning Map



Uses allowed in the B-B District require Special Permits. The sending area must be in the R-C District land surrounding the BSOD mapped land. The amount sent must equal the development site plus any proposed impervious area exceeding half of the "receiving" development site and must be protected by a conservation restriction or transference of the deed to the Conservation Commission. The project must also not have detrimental effects on the groundwater or the neighborhood.

The available land is largely Ch. 61A farmland east of South Street. These provisions offer an opportunity to preserve farmland, or at least open space, in the center of a largely developed area. They reportedly have been used to allow at least one intensified development on Route 18.

Zoning/Local Protective Provisions

Bridgewater zoning regulations include development of single-family and duplex homes. Bridgewater zoning requires house lots of 43,560 square feet (one acre) in the Residential A/B District, and one acre per unit in the Planned Development (PD) district, along with 18,500 square feet in the Residential C and D Districts, and 10,000 square feet in the Central Business District (CBD) (see Appendix 1, Map 5). The Town considered, but did not opt to increase minimum lot size requirements to 60,000 or 80,000 square feet, despite such a recommendation in the 1974 Bridgewater Growth and Development Report.

The Residential C and D districts allow duplex (two-family) houses as-of-right while the CBD district allows them by special permit. Multi-family housing is prohibited in all districts except for the Waterford Village Chapter 40R Smart Growth Overlay District and the recently adopted Mixed-Use allowance in the CBD, as described below. The highest densities allowed, outside of the 40R district, are lots of 7,000 square feet in the Mobile Home Elderly Community District. It is interesting to note that in 1971 the town amended the zoning bylaw to allow multi-family units by special permit, previously allowed by right. Then in 1982, the town amended the zoning bylaw to prohibit multi-family units. Currently, multi-family units are again allowed by special permit, but only as part of mixed-use buildings in the Central Business District.

The Central Business District covers the small commercial area of downtown, while the moderate-density Residential D District covers the largely sewered area around the downtown, and the comparable Residential C District is adjacent to the Residential D District, as shown on the Zoning map. The lowest density R-A/B District covers most of the undeveloped parts of the Town while the PD District covers the area south of Lake Nippenicket.[6]

The commercial zoning districts are located downtown, on Route 18, and in small selective outlying portions of Pleasant Street and Plymouth Street along Route 104. The Industrial districts are largely in planned or existing industrial areas along Route 24 and in scattered pockets reflecting existing uses. The Industrial E (IE) district is located on Elm Street, which encompasses a portion of the Priority Preservation Area.

[6] Note that the PD District is the site of an approved comprehensive permit for the development of rental housing on Route 104 known as The Residences at Lakeshore.

The Bridgewater Town Council approved a Mixed Use Zoning Bylaw for the Central Business District in September 2013 that allows mixed commercial and residential development by special permit. The maximum number of residential units permitted is five per acre, or eight per acre if 25% of the total units are affordable. The bylaw requires commercial use on the street frontage of the first floor. In addition, the bylaw requires two off-street parking spaces per unit with a visitor parking space for every three units in addition to the off-street commercial parking requirements. Shared parking, to reduce the total parking requirement, is not permitted.

Bridgewater zoning allows an alternative to conventional subdivisions to protect open space by clustering house lots. This alternative applies (by special permit) for development of properties that are 10-15 acres through the Open Space Community Development (OSCD) Bylaw that was adopted in 1989. The bylaw requires that at least 35% of the land be preserved as common open space for purposes of conservation, recreation, or agriculture. Per the Bridgewater bylaw, an OSCD community is permitted the same number of total units as a conventional subdivision on lots not less than 50% of the minimum lot area in the zoning district. Seven developments have been approved through the OSCD bylaw since adoption, of which five were constructed: Cobblestone, Harvest Lane, Old Field Estates, Pheasant Lane, and Sea Tower. Bridgewater Preserve is currently under construction.

Adult Retirement Villages (ARV), which are intended as compact development to lower maintenance cost, foster community, and preserve open space, are permitted by special permit in the RA/B, RC, RD, Gateway, and E Gateway districts. ARV developments are permitted through the Open Space Community Development bylaw. An ARV development is permitted an increase of 25% over the maximum number of units allowed within a conventional subdivision.

In addition, the Zoning regulations allow accessory apartments by right in RA/B, RC, RD, Gateway, and E. Gateway districts and by special permit in all other districts.

Environmental Protection Provisions

The Aquifer Protection District

Like most such provisions, Bridgewater's Aquifer Protection District is mapped over the town's main aquifers and over land (Zones I, II and III) significantly recharging the aquifer. It then prohibits or tightly regulates uses potentially contaminating the aquifer and requires special permits for dams, paved areas or other uses affecting storm water management and recharge, and sets standards for storm water management systems.

The District is mapped extensively over the sensitive areas, particularly in the northeastern section of the town, the area around the southern portion of Carver Pond, and a north-south strip west of Routes18/28. In addition, East Bridgewater's comparable district covers a small area east of Stump Pond, and the Raynham district covers much of the area south of Lake Nippenicket to the Raynham line. These provisions provide much protection, but ownership is the greatest protection, so being in the District should be an added factor supporting acquisition.

Local Wetlands Protection Bylaw Wetlands Protection Ordinance Article XXXIII

In addition to its Aquifer Protection Zoning bylaw, the town has a non-zoning local wetlands protection bylaw Wetlands Protection Ordinance. Such bylaws ordinance can regulate current activities as well as proposed activities regulated by zoning, and can provide protections additional to those of the Wetlands Protection Act (Ch.131, S. 40). Thus the bylaw ordinance can prohibit alterations within 100 feet of a wetland while the Act requires filing a Notice of Intent to work within 100 feet of a wetland but can only regulate work within the resource area or directly affecting it. In addition, the bylaw ordinance may include protection of resources and values (e.g. aesthetics, recreation, and agricultural values) not covered under the Act. Further, decisions under the bylaw ordinance can be appealed only to Superior Court, while decisions under the Act may be appealed to the Department of Environmental Protection.

Flood Plain District

The Flood Plain (overlay) District is provided to prevent residential use of land that floods seasonally or periodically, to protect and maintain the water table, and to ensure proper function of water courses to provide "adequate and safe floodwater storage capacity."

The District covers areas mapped as Zone A, A1-30 on the FEMA Flood Insurance Rate Maps and Flood Boundary and Floodway Maps. The Board of Appeals may allow development in the mapped flood plain if it can be done safely without causing problems elsewhere (e.g. by taking up needed flood storage and endangering downstream uses, or conversely, blocking flow and causing flooding upstream).

In addition to the zoning changes noted above, the Planning Board has upgraded its Rules and Regulations for drainage design in compliance with DEP's Best Management Practices.

Infrastructure

Transportation

Roadways

Bridgewater is on Rte. 24, a major north-south limited access highway. This gives access to Fall River and New Bedford and Routes 44, I-495 and I-195 to the south; and to Route 128 and I-93 and Greater Boston to the north. Local numbered routes serving the town are:

- Route 28 running north-south through the town along with Route 18 and connecting to Brockton and on to Route 128 to the northwest
- The east-west Route 106 running west to Plainville and to Routes 1 and I-95, and east to Kingston and Route 3; and
- The east-west Route 104 running northeast to Halifax and south-west to Taunton. See Locus map above.

Rail

Bridgewater has MBTA rail transit in the form of the restored Old Colony Commuter rail service running north through Brockton and Quincy to Boston, and south to Middleborough and Lakeville. It offers 12 round trips per day. The station has been moved from the original site at the edge of downtown off of Bedford street to a larger, but less central site is located in the University, between the east and west campuses. The MBTA is studying ways to restore service to Fall River and New Bedford (the "South Coast"). One would use the present Middleborough/Lakeville route through Bridgewater, thereby increasing service. MassDOT and MBTA are currently developing environmental permitting and design for the South Coast Rail project, a commuter rail service that will reconnect Boston and major cities and towns in the Massachusetts South Coast. The project envisioned a possible new Middleborough option where the MBTA Middleborough/Lakeville line can connect to Fall River, Taunton, and New Bedford via an upgraded Middleborough Secondary Line. If this vision comes to fruition, Bridgewater residents will have rail services to Taunton, Fall River, and New Bedford.

Bus and Paratransit

The Brockton Area Transit system (BAT) offers school year service routed from the BSC BSU campus along Route 28 to a transfer point serving the rest of the BAT system in the north end of Brockton. Other service is that within the Bridgewater State CollegeUniversity campus; the Bridgewater Council on Aging's paratransit service and the BAT system's Dial-a-BAT demand-responsive paratransit service also serving the elderly and disabled.

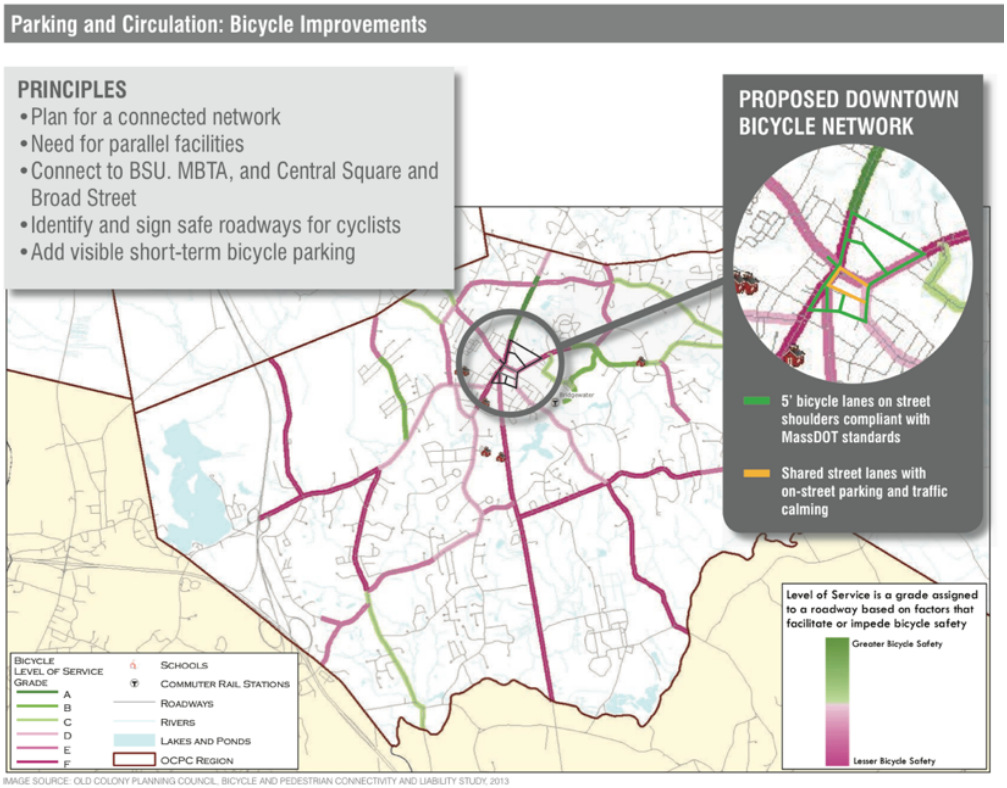
Bicycleways

In March of 2014, the Old Colony Planning Council (OCPC) published the *Central Square Parking, Bicycle, Pedestrian, and Traffic Operations Improvement Plan*. Building from previous studies including the Bridgewater Downtown Community Development Master Plan (2014, The Cecil Group), Bridgewater Housing Plan (2012, JM Goldson) and Traffic Circulation & Pedestrian Access Study (2011, OCPC), the plan gave specific strategies for improving the Central Business District with a focus on traffic flow and pedestrian/bicycle access.

The OCPC plan outlines bicycle accessibility problems, including the lack of a bicycle lane downtown which forces cyclists to share the road with two lanes of traffic. Limited formal bicycle storage and hazardous conditions such as vehicles pulling out of parking spaces leaves serious room for improvement in making the Central Square area more bicycle-friendly. As for solutions, the plan cites the need for better signage and the installation of bike racks at key locations within Central Square.

The 2014 *Downtown Community Development Master Plan* proposed its own set of bicycle improvement recommendations, with new considerations based on more detailed traffic analysis. **Figure 4** was taken from the 2014 Downtown Community Development Master Plan, and includes data from OCPC's 2013 Bicycle and Pedestrian Connectivity and Liability Study, as well as a proposed bicycle network that would be part of the downtown revitalization focus.

Figure 4 Proposed Bicycle Improvements in the Downtown Community Development Master Plan



Source: Bridgewater Downtown Community Development Master Plan, 2014, produced by the Cecil Group

Pedestrian ways

The aforementioned OCPC *Central Square Parking, Bicycle, Pedestrian, and Traffic Operations Improvement Plan* outlines numerous pedestrian access problems in the Central Square area, including angled parking which blocks sight lines, lack of adequate signage, and faded crosswalks that do not alert motorists to the presence of the pedestrians. The plan describes various methods to help combat these issues, including installing ADA-compliant ramps, Rapid Rectangular Flashing Beacons (RRFB), and curb extensions to all pedestrian crossings.

The 2014 Community Development Master Plan offers an even greater variety of pedestrian improvement recommendations. The following are the main points of their pedestrian-accessibility suggestions:

- Stripe crosswalks more boldly to enhance pedestrian visibility, and eventually work towards patterned, ADA-compliant crosswalks
- Add curb extensions at key crosswalks and intersections located inat high volume areas.
- Create new pedestrian pathways from Central Square through to BSU
- Realign crosswalks to shorten crossing distance

Figure 5 below, taken from the Community Development Master Plan, marks current pedestrian access in and around the Central Square area.

Figure 5 Pedestrian Access in Central Square

Source: Bridgewater Downtown Community Development Master Plan, 2014, produced by the Cecil Group

Bicycle / Pedestrian Way Requirements

In 20152016, the Town adopted a Complete Streets Policy to ensure streets are safe for people of all ages and abilities, balance the needs of different modes, and support local land uses, economies, cultures, and natural environments. In addition, the town's zoning ordinance requires that the pedestrian circulation system include pathways providing direct routes between major buildings, parking areas and roads and a secondary walking system, and that it must allow movement through open spaces.

At the same time, the subdivision rules and regulations say that pedestrian ways or footpaths will normally be required to provide convenient circulation or access to schools, playgrounds, shopping, churches, transportation, parks and conservation areas with a 15-foot to 20-foot right-of-way. Properly designed, these can also serve as bicycle paths.

These standards need to be more clearly defined and enforced. They rarely are fully implemented because there is often is no path in the adjacent undeveloped land to which the required path in a new subdivision can be connected. This might be solved by adopting a skeletal town-wide pedestrian /bikeway system which would connect major destinations and be binding on new development. Currently the Town is undertaking a Pedestrian Safety Assessment and Complete Streets Prioritization Plan to explore physical improvements to the pedestrian network, sidewalks, cross walks, signalization, equipment and amenities of the Central Business District and other critical geographic areas of the Town.

Water Supplies

Bridgewater's water supplies come from ground water in two aquifers. One is along the Matfield River with four wells south of High Street and east of the river and with two new wells south of Plymouth Street along the Taunton River on the Wyman Meadow land. The other aquifer is around Carver's Pond with four wells just south of the pond and an inactive well on the shore of the southern lobe of the pond. Add information relative to the new well that's being brought on line near the golf course.

The Matfield River aquifer occupies the northeast corner of the town bracketing the Town and Matfield Rivers, while the Carver's Pond aquifer runs east and west of the Pond and then south, roughly west of Snow's Brook, to the Taunton River near the Middleboro line. These aquifers are indicated by the Zone II recharge areas shown on the Water Resources map in Section 4. These are the recharge areas tapped during a six-month drought.

The supplies are protected by ownership of land around the wells and by the town's Aquifer Protection District zoning discussed below. This district is mapped over the Zone II areas shown on the Water Resources map.

Water from the Carver's Pond Aquifer is treated for removal of iron and manganese by a plant at the Carver's Pond Treatment Plant. The High Street wells along the Matfield River were formerly treated for nitrates, but the plant has been closed since nitrate levels dropped following changes in upstream land uses, particularly altered dairy farm operations. A new iron removal plant is currently entering the design engineering phase.

Despite increased population, overall annual water consumption decreased between 2000 and 2014 from 612,088,304 gallons per year (1.68 MGD) in 2000 to 534,218,862 gallons per year in 2014 (see **Figure 6**). Bridgewater has reversed the prior trend of increased water consumption between 1995 and 2000, which went from a total of 515,847,049 gallons per year in 1995 to 612,088,304 gallons per year in 2000.

Figure 6 Water Consumption Change in Bridgewater, 1995-2014

Source: Bridgewater Water Department

To ensure adequate supply, the Town acquired land and developed two new wells at Wyman Meadow. These that went into service in 2006 and are producing 500,000 gallons/day (.5MGD). This gives the system a total safe yield of 2.4 MGD. The department

also purchased land at Beech Street next to the Titicut Conservation Parkland for a possible added well. The Water dDepartment reports that the site has turned out to be less productive than expected and the Water dDepartment does not expect to use it.

For distribution, water is stored in two tanks, one on Great Hill holding 990,000 gallons and one on Sprague's Hill to the north holding 4,000,000 gallons. Together these give two days' storage based on the recent maximum day's consumption of 2.2 MGD and 2.9 days' storage based on 2007 average consumption of 1.73 MGD.

The Water Department continues to explore other options such as bedrock wells and alternative sources. These do not include use of the extensive supplies in Lake Nippenicket because of their very high level of iron. Nippenicket reportedly is Wampanoag for "Lake of Red Water."

With the recent increase in safe yields and its continuing efforts to expand supplies, the Water Department does not expect water supply to be a significant constraint on development for the foreseeable future.

Water Protection

The Town's water supply is protected by the Groundwater Protection Zoning described below. This was adopted in 1988 and updated in 1994 in accord with Massachusetts Department of Environmental Protection Guidelines. Such protection is a concern shared with adjacent communities. Some of the wells serving East Bridgewater and Middleborough are close to Bridgewater and two wells serving Raynham are next to Lake Nippenickett. The Zone II primary recharge areas for East Bridgewater and Bridgewater overlap near the Matfield River. A small portion of East Bridgewater's Aquifer District just east of Bridgewater's Stump Pond, and extensive areas of Raynham's Aquifer District west and south of Lake Nippenicket, are included in Bridgewater's mapped Groundwater Protection District.

Sewers / Septic System Feasibility

Soil limitations for on-site septic systems greatly influence the location and density of residential development. Areas mapped with severe limitations due to high water tables, rock, or impermeable soils (e.g. fragipan) are the most difficult to develop with such systems and steep slopes add to the limitations.

Maps in the1969 Plymouth County Soil Survey by US Soil Conservation Service show that such restricted lands cover as much as 45% of the community, running north-south in irregular bands. These cover extensive areas northwest of the Correctional Complex, northeast of Lake Nippenicket, southeast of Bridgewater State University, along much of the Town and Taunton Rivers and South Brook, over the State Forest and east of Vernon Street.

Development without sewers will be constrained in these areas, but generally possible, particularly at the low densities required in Bridgewater. The result is that most severely-restricted soils are able to accommodate up to three quarters of the development otherwise allowed, though system maintenance may be a problem. Thus, septic limitations do not predict development potential so much as of future maintenance problems. In addition, more recent Innovative and Alternative on-site sewage treatment systems can reduce the

needed depth to the water table, or other dimensional requirements, along with the required percolation rates, making previously marginal sites useable.

Nonetheless, sewering has a major impact in removing consideration of soil suitability for disposal systems. This makes development more likely and increases feasible densities. Thus, the soil maps still can suggest priorities for protection among comparable sites in presently un-sewered areas.

Bridgewater's present advanced wastewater treatment plant has a capacity to treat 1.44 MGD. It currently receives flows of 800,000 to 900,000 gallons a day fluctuating with the seasonal flows from the college, and up to 1.2 MGD during wet weather. This wet weather flows reflect problems with infiltration and inflow (I/I) which the department is treating through inspection, repair and a mandatory 3:1 I/I removal requirement for major new sewer connection. The system discharges treated effluent to the Town River at the treatment plant site off of Morris Avenue.

The present sewer system serves the heart of the community around the town center, the CollegeUniversity and some recently added outlying areas including the Elm Street and Scotland Park industrial areas and the office/retail complex south of Lake Nippenicket, (located over a portion of Raynham's aquifer). It also serves the Mobile Home Elderly Community at the former Wyman's Farm, along with some blocks along North Street, the upper portion of South Street, Laurel Street, Hayward Street and Whitman Street.

A number of extensions are planned to meet present or anticipated local water quality problems from failing septic systems rather than to protect the aquifer recharge areas as such. Thus, some are proposed for areas over the aquifer, like the Fox Hill/Pleasant Drive area west of Carver's Pond, while others are only at the edge of an aquifer. At the same time, some land over aquifers have no service since septic systems continue to function adequately. The Sewer dDepartment notes that there is not sufficient capacity to serve all areas presently proposed for service.

Geology, Topography, and Soils

Geology and Topography

Bridgewater is in the northwestern portion of the Old Colony Planning Council Region and in the Greater Brockton sub-region consisting of Abington, Avon, Brockton, Bridgewater, East Bridgewater, Easton, Stoughton, West Bridgewater, and Whitman.

The terrain has limited relief ranging from 10 feet above mean sea level (MSL) along the southern end of Taunton River to 175 feet MSL at Sprague's Hill and 157 feet MSL at Great Hill on the Bridgewater State CollegeUniversity Campus. Much of the land is low-lying with poor drainage and scattered wetlands, especially in the southern and western parts of the town.

Overall, this relatively developed town has many streams and, scattered ponds, (which are often man-made impoundments). These are its most prominent geologic features. It also has commonly tight glacial soils limiting on-site disposal opportunities and groundwater yields. While the region's extensive drainage system has many streams, none except the Matfield River, the Town River and the Taunton River itself areis very large because the communities are close to the headwaters of the several basins.

Similarly, the town has very few major streams beyond the South Brook because most streams run for a short distance to the Town and Taunton Rivers, as discussed under Water Resources.

The climate is temperate, lacking the extremes found in the south, the far north or the interior of the country, and without the range of precipitation of the northwest or desert regions. Yet there is enough of a range of temperature and weather to give us serious winter storms, rare but dramatic hurricanes, and occasionally dangerous heat waves. One fairly constant factor is the annual 40-plus inches of rain to be accommodated by the streams and wetlands, or stored for use.

Soils

The various soils' suitability for septic systems can help to prioritize open space acquisitions if two similar sites have very different potential for development. Similarly, in cases where maintaining the amount and quality of ground water recharge is a concern, a site's recharge value may be an important consideration. However, acquisition should not be crucial in outlying areas if adequate protective regulations are in place - as they are in Bridgewater.

Glacial till is found in drumlins - oval hills formed by a moving glacier. These are shaped like half a football sliced the long way, and are commonly oriented north-south like that on Forest Street just east of South Street. They usually contain layers or lenses of clay along with gravel and other materials and can be very tight, as noted above. They absorb septic system effluent slowly and shed water rapidly, sometimes compounding local drainage issues, but they also offer good building sites in popular scenic hillside locations. Thus, any un-built upon drumlins would deserve strong consideration for at least partial protection.

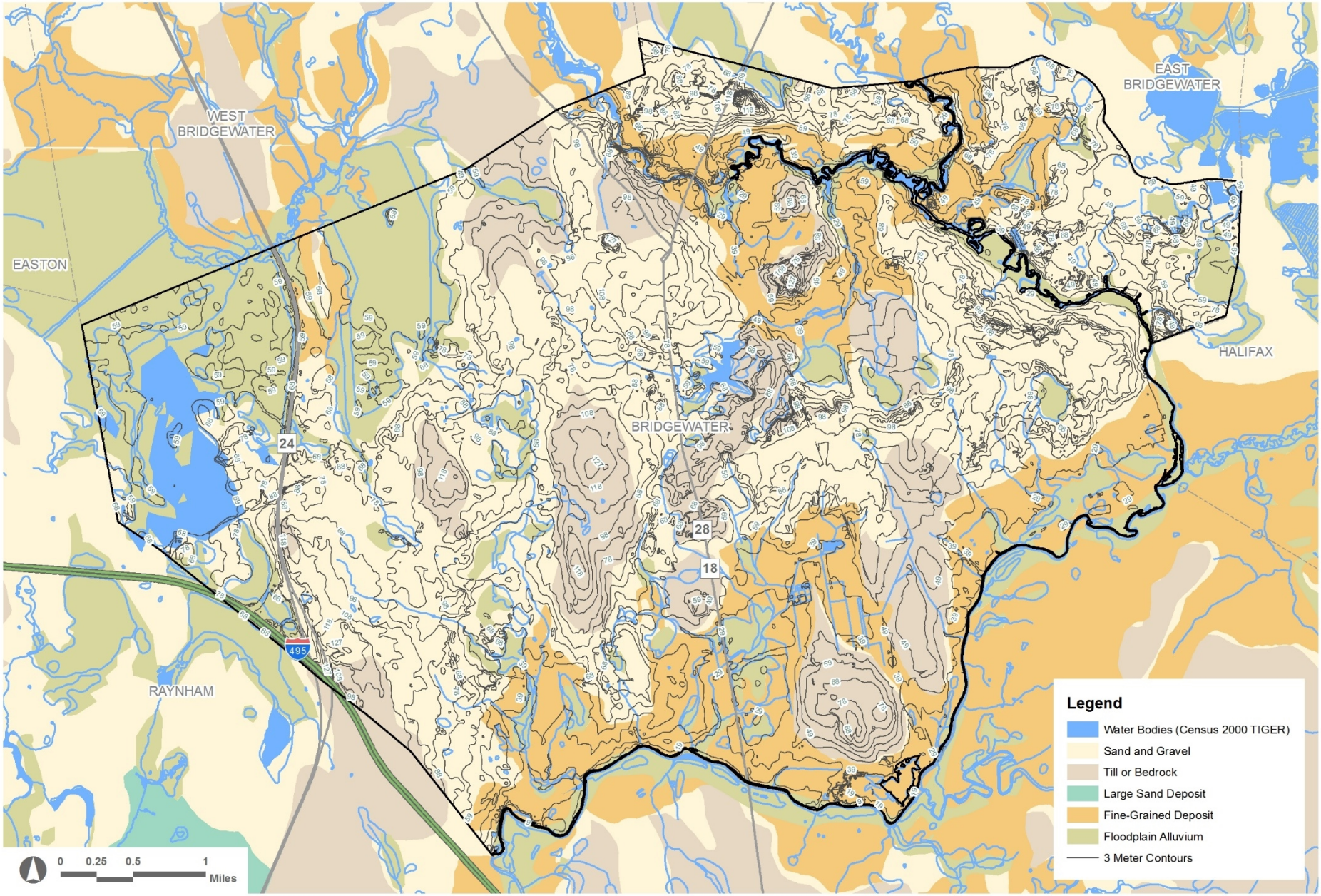
Fluvial (outwash) soils are deposited by glacial melt-water streams and typically contain much sand and gravel. There are found throughout Bridgewater. Such soils offer good (or sometimes excessively rapid) septic effluent absorption and can hold much groundwater.

Lacustrine (lake bottom) soils are fine-textured silt and clay deposited by flowing glacial melt-water beyond the point where heavier sand and gravel settle. The large glacial Lake Taunton covered much of the Bridgewater area leaving thick silt and clay deposits, particularly in the southern and eastern sections of the town. These areas are quite difficult to serve with septic systems and lead to extensive areas with septic limitations. Such soils are can also be found along streams as with the clay pits at the former and present Stiles and Hart Brick Works on the Town and Taunton Rivers respectively.

Organic soils reflect incompletely-decayed plant material and are found in the northeastern corner of the town in the Hockomock Swamp. They can hold large amounts of water, slowly releasing it to streams and even more slowly releasing it to the underlying aquifers. They are poorly suited for septic systems or groundwater recharge and make poor building sites, particularly when composed of easily compressed peat. The soils best suited for septic systems are those that are well-drained, but not excessively well-drained on level or gently sloping land with no shallow underlying layers of dense silt or till. They can benefit from being over well-sorted glacial fluvial soils unless coarse underlying soils offer inadequate treatment as the water percolates toward ground water. Well-drained soils over firm or dense glacial tills will be less suitable for septic systems or ground water recharge because the percolating water will be excessively slowed by the firm layer, often called fragipan. Moderately or poorly-drained soils over freshwater organic deposits (commonly called peat) or over silty lacustrine (lake) deposits are the least suitable for septic systems or recharge.

Map 3 shows the soil and surficial geologic features in Bridgewater and its surrounding communities. While the individual soils will vary in some traits, they are described as parts of such soil map units listed below.

BIRCHWOOD-POQUONOCK-MATAPOISETT Very deep, nearly level to moderately steep, well-drained to poorly-drained soils formed in sandy mantled (sic) underlain by loamy firm to friable glacial till in areas of ground moraines and uplands. These soils are found over much of Bridgewater's undevelopable Hockomock swamp lands.



Source: MassGIS

vhb

Map 3
Soils and Geologic Features

FREETOWN-SWANSEA-SCARBORO Very deep, nearly level, very-poorly drained soils formed in very-deep to shallow freshwater organic deposit, underlain by glacial fluvial deposits in swamps and depressions. Such soils would be severely limited for septic systems or groundwater recharge.

HINCKLEY-WINDSOR-DEERFIELD Very deep, nearly level to steep, excessively to moderately well-drained soils formed in glacial fluvial deposits on outwash plains, deltas, kames, and ice contact deposits. These could be too well drained for effective treatment by septic systems, but would be good for ground water recharge.

SCITUATE-MONTAUK-NORWELL Very deep, gently sloping to steep, well-drained to poorly-drained soils formed in loamy glacial till overlying dense glacial till; on upland oval hills (drumlins) and ground moraines. These are apt to be poor for septic system and for ground water recharge due to the underlying dense material obstructing downward movement.

RAYNHAM-SCIO-BIRDSAL Very deep, nearly level to gently sloping, moderately well-drained to poorly-drained soils formed in silty lacustrine deposits. These too, are apt to be poor for septic system and for groundwater recharge due to the underlying dense material obstructing downward movement. These soils are over much of the tight clay soils along the Town and Taunton Rivers (leading to the creation of the Stiles and Hart brick works.)

WOODGBRIDGE-PAXTON-RIDGEBURY Very deep, gently sloping to steep, well-drained to poorly-drained soils formed in loamy glacial till overlying dense glacial till; on upland oval hills (Drumlins) and on ground moraines. Again these are apt to be poor for septic systems and groundwater recharge despite well-drained surface soils.

Landscape Character

Bridgewater's landscape combines woodlands, wetlands, remaining farm fields including those around the Correctional Complex, views of two major ponds/lakes and occasional glimpses of the Taunton River. Bridgewater also has a strong town center, increasing numbers of commercial strip development, outlying low-density neighborhoods, and the major institutional presence of the Bridgewater State University, including the iconic Boyden Hall.

Farmlands and meadows bordering major roads are often more appreciated than other less- visible lands because of the views they provide. Most notable are the remaining farms along Plymouth Street and fields rolling down to the River from Plymouth Street at Wyman Meadow, and at the end of Auburn Street at the former Lehtola Farm, a 230-acre property that was acquired by the Wildlands Trust of Southeastern MA and the MA Department of Fish and Game in 2009 and is known as the Great River Preserve and the Taunton River Wildlife Management Area.

Other significant expanses are the former State Farm along Summer Street at the BCC, and pastures along South Street north of Winter Street. The approximately 200-acre Cumberland Farms land along the Taunton River is quite extensive with about 4,800 feet of river frontage – it has been permitted for the installation of a solar farm. A 40B project has been proposed by Duxburrow Estates for the upland area and is currently under Zoning

Board of Appeals review. The project includes 150 single family units on 88.5 acres off Curve Street.

Much of the town's agricultural and forested landscape is fading or under threat. In recent years residential and institutional growth have claimed the Imhoff farm, much of the Homenook farm, the Perkins land (a.k.a. Cathrop property) off of Cherry Street, the McIntyre farm, the Poole Farm, the Pawlowski Farm, much of the Wyman Farm, woodlands on Pine and Conant Streets, and other former agricultural and forest holdings. In response to these losses and in appreciation of what is left of the town's natural beauty, there have been local efforts to enhance a variety of public land and to preserve farmlands and other open areas. Thus the town purchased the Hogg Farm in 2000 for municipal and recreational use and bought the Wyman Meadow for a well site and conservation use. The town, with CPA funds, also acquired 9.27 acres of open space adjacent to the Keith Homestead with a Conservation Restriction held by MA Department of Fish and Game in 2012 and, also with CPA funds, acquired a Conservation Restriction on the Murray and Needs farms on North Street.

With such multi-purpose purchases as with the Wyman Meadow land, it is important to divide the land into the intended municipal and conservation pieces and then to place the conservation land into protected ownership. This approach allows the municipal land to remain available for the intended municipal purposes without the legislative acts needed to change the use of "parkland" under the State Constitution's Article 97. It additionally allows the conservation land to be clearly protected, as it would not be as general municipal land

The town has successfully used State Self Help funds to buy the Tuckerwood woodlands in 1998 and the historic Stiles and Hart brick-making site (the former Plymouth County Agricultural Society Fairgrounds) in 1999, along with the Wyman Meadow and the first Self Help project, the Titicut Conservation Parkland. These are all along the Town and Taunton Rivers, adding many acres and miles to Bridgewater's proposed protected river greenway. This is a major component of the Conservation Parklands System.

In the late 1970s Bridgewater acquired the extensive Chaffee Farm as general open space and then later created the Olde Scotland Links town-owned golf course on it.

The character of the streets bordering these scenic areas can enhance the public appreciation of them by having modest widths and curvilinear configurations, following the topography, and creating or enhancing viewsheds. At the same time, the overall street hierarchy has to meet traffic demands, so a design is needed which accommodates traffic while maintaining flexibility, e.g. one with narrow, curved streets but few cul-de-sacs and provides good connectivity to adjacent streets and through routes.

Most early development followed the high ground with roads built along ridges and land sloping away on both sides and most recent development (except for the sewered area around the center) has focused on uplands that are suitable for septic systems. Therefore, as the 2005 draft plan put it, "The greatest concentrations of pristine lands, some private and some public are now found further from public view along major rivers and water bodies." Expansive wetlands and forests of red maples and similar vegetation predominate in such remote areas.

Water Resources

Bridgewater boasts a broad variety of water resources within its boundaries. See **Map 4**.

Watersheds

The town is in the approximately 562-square mile Taunton Basin, the second largest in Massachusetts. It contains the headlands of the Taunton River where the 14-mile long Town River, originating at Lake Nippenicket and Hockomock Swamp and draining much of West Bridgewater, meets the Matfield River. The Matfield River draws on the Salisbury Brook and Beaver Brook. These meet in East Bridgewater, to form the Matfield River which then picks up the Satucket River in the Joppa section of East Bridgewater just north of the Bridgewater town line. The Matfield River then flows south to meet the Town River in Bridgewater and to form the Taunton River.

The basin is unusually flat with only a 20-foot drop over its 40-mile main stem. This may partly explain the lack of mill dams noted below. The basin is characterized by low permeability glacial till soils and less frequent very coarse sand and gravel outwash soils; by shallow depths to groundwater; and by many wetlands. These features significantly constrain conventional on-site wastewater disposal and may exacerbate storm water runoff issues, but they provide unique habits for aquatic and upland wildlife.

With the region's growth has come increased concerns with water quality, water supply, and management of stormwater and waste water. These concerns have led to the ongoing 2008 Taunton River Watershed Plan study being coordinated by Bridgewater State University, and to the more waste-water focused 2012 Upper Taunton Basin Wastewater Evaluation project. This section draws heavily on the first project's Phase I report.

The Taunton River Basin has 108 sub-watersheds or sub-basins of which six are wholly or partially within Bridgewater. These are typically the areas upstream of the confluence of two second order streams and range from 5 to 10 square miles. The south-central portions of Bridgewater are drained by Sawmill Book and its tributaries running through extensive areas of flood plain and wetlands south of Flagg Street and east of the Bridgewater Correctional Complex and entering the Taunton River just west of Route 18. It is also drained by Snow's Brook and its tributaries flowing through Sturtevant Pond and entering the Taunton River just above the Sturtevant Bridge on South Street. Sturtevant's Pond is an example of the many lesser streams dammed and small ponds enlarged by impoundment in order to power local industries. These have left well-established mill ponds.

The southeastern corner is drained by Beaver Brook and Spring Brook, flowing through an extensive area of 100-year flood plain and entering the Taunton River just west of Auburn Street.

The northwestern corner of the town is drained by the Hockomock River running from West Bridgewater through the Hockomock Swamp to the Town River just upstream of Route 24.

The north-central part of the town is drained north to the Town River by the substantial South Brook which runs through Carver's Pond and Skeeter Mill Pond east of Water Street and through extensive areas of wetlands and 100-year flood plain en route to the river.

The northeastern corner of the town is drained to the Taunton River by Blood Pond Brook flowing through wetlands and Blood Pond to the River.

In all, eight mapped sub-basins (smaller brooks, streams and wetlands draining into the Town, Matfield and Taunton Rivers) drain the town to the Taunton River and ultimately to Mount Hope Bay and Narragansett Bay. Due to the short distance to the Rivers none of these streams is very long or has large flows.

Figure 7 Sub-watersheds of the Taunton River Watershed within Bridgewater

Source: Bridgewater Source Water Protection Project, June 30, 2015

There are two major dams on the Town River, one at the War Memorial Park in West Bridgewater and one upstream of the former Stanley Iron Works off High Street in Bridgewater. the later dam is privately owned. This dam makes possible 450-acre Town River Reservoir that extends well into West Bridgewater.

The High Street Dam consists of two structures, one in the main channel of the river; a second smaller one is located at the head of a channel constructed early in the industrial age west of the Lincoln Club to divert water for power. The main dam was originally built in 1694. In 2011, the Commonwealth of Massachusetts listed the condition of the main dam as fair and the channel dam as poor.

The Town River Fishery Committee, consisting of volunteers appointed from Bridgewater and West Bridgewater, monitors the river for fish migrations and advises the Towns' regarding fishery management of the river. The committee also works with the Conservation Commission to address river accessibility by boat and recreational uses including fisheries.

In November 2016, the state Marine Fisheries Division working with the dam's owner, the Town River Fishery Committee, and Nature Conservancy launched a High Street Dam Study to determine the condition of the dam and develop options that ensure anadromous fish passage including whether this dam should be removed. Removal will likely lessen the current width of the reservoir and alter the current ecosystems. The implementation of this study will have potential impacts on the existing Iron Works Parkland design and the local riparian landscape behind the Lincoln Club, in addition to other considerations including ownership of the egress/access to Iron Works Parkland, storm water management issues, fishery management, historical preservation, Bay Circuit Trail enhancement, and possible funding for further restoration of the Stone Building.

It is notable that there are no dams on the Taunton River itself except for the very low, deteriorated one at Paper Mill Village just below confluence of the Matfield and Town Rivers. As a result, the Taunton is often referred to as the longest free-flowing stream in the state.The last dam on the Bridgewater end of the Town River is at the former Stanley Iron Works on High Street just upstream of the beginning of the Taunton River. It produces the long, 450-acre Town River Reservoir extending well into West Bridgewater. The High Street

Dam is a colonial dam originally built for water power and is now deteriorating. In November 2016, the state Marine Fisheries Division lunched a High Street Dam Study to determine whether this dam should be removed, which will likely lessen the width of what currently exists and change current ecosystems, exposing the riverbed in some areas. The implementation of this study will have potential impacts on the existing Iron Works Parkland design and the local riparian landscape behind the Lincoln Club, in addition to other considerations including ownership of the egress/access to Iron Works Parkland, storm water management issues, fishery management, historical preservation, Bay Circuit Trail enhancement, and possible funding for further restoration of the Stone Building.

It is notable that there are no dams on the Taunton River itself except for the very low, deteriorated one at Paper Mill Village just below confluence of the Matfield and Town Rivers. As a result, the Taunton is often referred to as the longest free-flowing stream in the state. (Even the mighty Connecticut River is dammed for power and recreation at Turner's Falls.)

Surface Water

Rivers and Streams

Taunton River

The southwesterly flowing Taunton River begins at the confluence of the Town and Matfield rivers in Bridgewater north of Mill Street and eventually empties into Mount Hope Bay. The Taunton River is a nationally-designated Wild and Scenic River, which is a system created by Congress in 1968 to preserve rivers with outstanding natural cultural, and recreational values, keeping them in free-flowing condition for the enjoyment of present and future generations. Less than ¼ of 1% of rivers in the United States are protected under the National Wild and Scenic Rivers System (National Wild and Scenic Rivers System, www.rivers.org).

Figure 8 Confluence of the Town, Matfield, and Taunton River s in Bridgewater

Most projects within a river's bed or banks require a permit issued by the U.S. Army Corps of Engineers through its authority under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act. Such a project may also require other permits. The National Park Service (NPS), as the river-administering agency under the Wild and Scenic Rivers Act, has responsibility to review any federal actions, permits, etc. that would impact the Taunton River. In addition, the Taunton River Stewardship Council, which is primarily a coordination and communication body, can weigh in on the NPS project reviews. Projects that typically require review include impoundments, diversions, channel straightening, riverbank revetment, and structures including docks, piers, and bridges.

The Taunton River is nationally significant as the longest undammed coastal river in New England, it has globally rare freshwater and brackish tidal marsh habitats, and is the state-designated Wampanoag Commemorative Canoe Passage (an ancient Native American waterway of over 70 miles).

Town River

As a key tributary of the Taunton River, the Town River is also recognized and afforded protection. The 14-mile-long Town River flows from the Hockomock Swamp north of Lake Nippenicket through West Bridgewater and back into the northeastern side of Bridgewater. The Town River meanders east, past the Campus Plaza area until it meets the Matfield River flowing south from East Bridgewater. At that point, both rivers converge and form the Taunton River, which defines the eastern and southern boundaries of Bridgewater. The Town and Taunton Rivers were designated as priority protection areas by the Town of Bridgewater and regionally by the Old Colony Planning Council in 2013.

Matfield River

The Matfield River, approximately 6.7 miles, flows southeastward through East Bridgewater to Bridgewater and eventually joins the Town River in Bridgewater to become the Taunton River. The Matfield River is relatively undeveloped past the Elmwood area of East Bridgewater. The confluence of the Salisbury Plain River and Beaver Brook form the Matfield River, though locals consider the whole river through West Bridgewater as the Matfield River. The Salisbury Plain River's proximity to the Brockton Sewerage Treatment Plant has led to water pollution in the Matfield River (described more in the "Water Quality" section below).

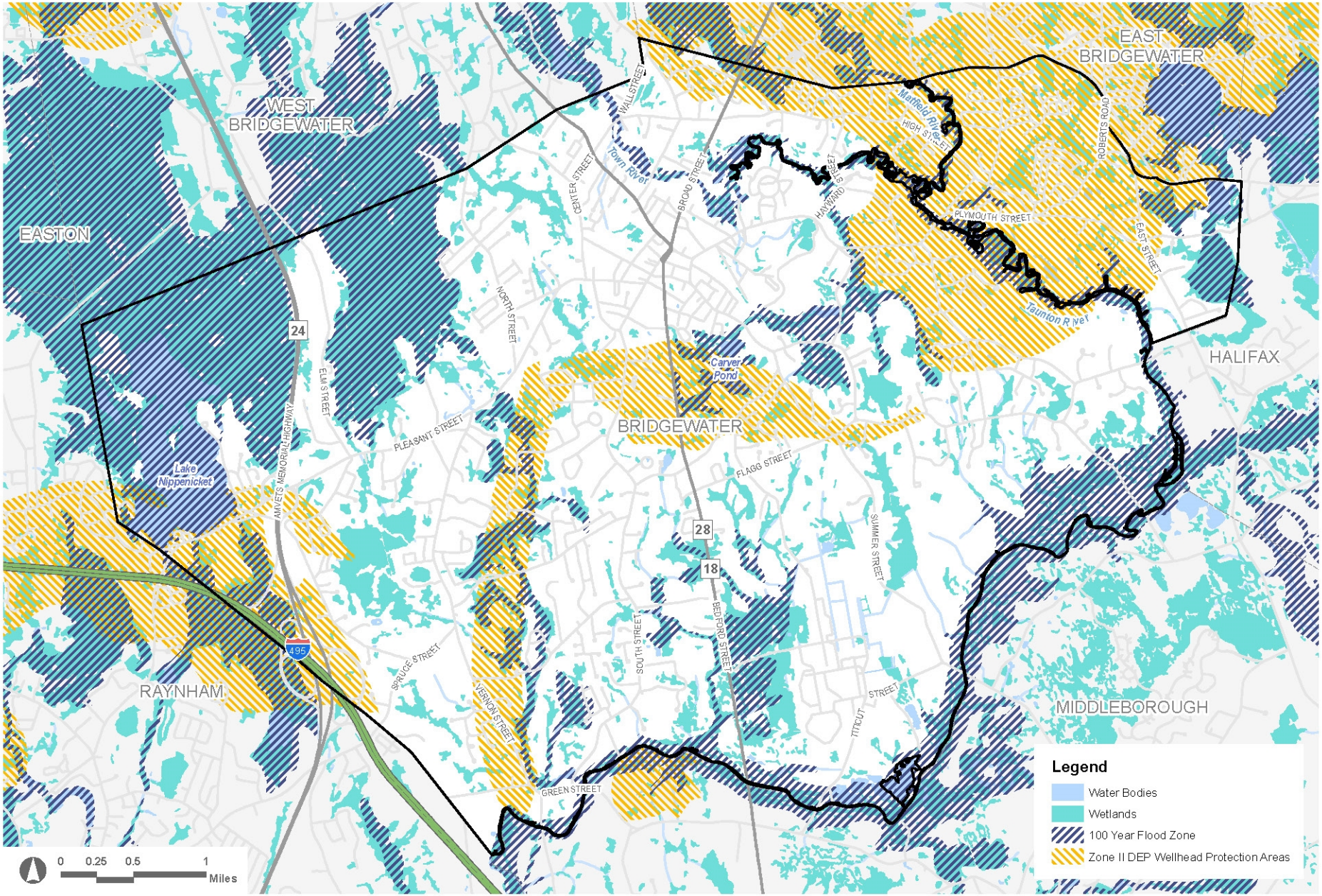
Streams

As mentioned above, the eight sub-basins, including brooks, streams, and wetlands drain into Bridgewater's three rivers.

South-central Bridgewater is drained by the Sawmill Brook and its tributaries running through extensive areas of floodplain and wetlands east of the Bridgewater Correctional Complex (BCC) as well as by Snow's Brook and its tributaries flowing through Sturtevant Pond.

The southeastern area of Bridgewater is drained by Beaver Brook and Spring Brook, which flow through an extensive area of flood plain and enter the Taunton River just west of Auburn Street. The northwestern area of town is drained north to the Town River by the

substantial South Brook, which runs through Carver's Pond and Skeeter Mill Pond. Blood Pond Brook drains the northeastern area of town flowing through wetlands and Blood Pond to the Taunton River.



Source: MassGIS

Map 4
Water Resources

Lakes and Ponds

Bridgewater has nine primary lakes and ponds: Lake Nippenicket, Carver's Pond, Skeeter Mill Pond, Sturdevant's Pond, Blood Pond, Ice Pond, Cross Street Pond, the Town River Impoundment, and Paper Mill Village Backwater. Most of Bridgewater's small ponds have been altered (or created) through dams/impoundments to provide water control.

Bridgewater's lakes and ponds are ecological, recreational and historic assets, providing important wildlife habitat, recreation opportunities including fishing, boating, and skating, and historic resources with particular significance for Native American, Colonial, and industrial history.

Lake Nippenicket

Lake Nippenicket, located in the northeast area of Bridgewater near the Raynham border, is a shallow but nearly 500-acre lake at the headwater of the Town River. It offers water-based recreation opportunities including boating and fishing (not swimming). Much of the western shore is owned by the state with scattered town holdings. The state also owns the land known as Lake Nippenicket Preserve on the eastern shore of the Lake (formerly property of the Wildland Trust for Southeastern MA, gifted to the Commonwealth in 2011). Adjacent to this state property, is town property known locally as the Keith Homestead, which was acquired with Community Preservation Act and MA Department of Fish and Game funds for open space and historic preservation purposes.

At the time of the 2009 OSRP, Lake Nippenicket was listed in the MA Department of Environmental Protection's Integrated List of Waters as Category 5 as "Requiring TMDL[7]" for metals and exotic species. However, in the 2012 Integrated List it is improved to a Category 4A "TMDL completed."

Carver's Pond

Carver's Pond is a manmade, an approximately 25-acre former mill and ice pond. It is an impoundment of South Brook just west of Summer Street and abuts wetlands and town wells. Most of the shore is town-owned water supply protection and conservation land and surrounding paths allow passive recreational use. The 2009 OSRP reported that Highway Department studies recommended further repairs to the pond's earthen dam including filling the breach with clay.[8] The Town's work to repair the dam at Carver's Pond was constrained by incomplete public ownership. Per the 2012 Integrated List, water quality remains as it was in 2006 as Category 4C "Impairment not caused by a pollutant" but rather by exotic species.

[7] TMDL – "Total Maximum Daily Load" is a calculation of the maximum amount of pollutant that a water body can receive and still safely meet water quality standards. (EPA, http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl)

[8] According to a memo from Andrew Bagas, Superintendent of the Water and Sewer Department, to the Board of Selectmen dated 2/16/2006, the Water and Sewer Commission recommended lowering the water level of Carver's Pond to reduce pressure on the dam and thus potential for flooding. In a memo dated 2/17/2006 to the Board of Selectmen, Stanley Kravitz, Health Agent, recommended investigation of the affects of lowering the water level of Carver's Pond.

Skeeter Mill Pond

The estimated 5-8-acre pond is on South Brook at Water Street, downstream from Carver's Pond and just above the State Forest. The pond is impounded by a control structure with boards before dropping the South Brook via a culvert under Water Street. The most accessible part of the pond, along Water Street, is largely privately owned and is notable for benches and fishing space provided for public use by the property owner. Much of the rest of the pond is state owned. The 2009 OSRP pointed out a possibility to restore a herring run at the pond.

Sturdevant's Pond

This approximately nine-acre pond is located at the end of South Street, with access from Green Street, and is an impoundment of Snow's Brook, which flows south to the Taunton River. The town owns an estimated third of the pond shore with access from Green Street.

Blood Pond

Blood Pond is Aa small 2-3-acre impoundment of Blood Pond Brook just north of the Taunton River and Plymouth Street and accessible from Plymouth Street. It has an earthen and stone dam with a fixed outlet via a corrugated pipe dropping water to a channel under Plymouth Street.

Ice Pond

Ice Pond is a small impoundment at the north end of the Bridgewater Correction Complex property and drains to a tributary of Sawmill Brook.

Town River ReservoirImpoundment

This pond is located at High Street in the Stanley Ironworks neighborhood and is formed by an impoundment of the Town River. The total pond is approximately 18 acres, mostly in West Bridgewater, with approximately two acres in Bridgewater. Per the 2009 OSRP, the Stanley Dam (a.k.a. Town River Dam or High Street Dam), which impounds a significant section and has a long fish ladder, was in deteriorated condition. The dam, first constructed in 1694 with a major repairconstructed c. in1919, is listed on the National Register of Historic Places as a contributing resource in the Stanley Ironworks District.[9]

Currently Marine Fisheries (DF &G) is undertaking a study on the High Street Dam in order to improve the safe passage of migratory fish. There is a high possibility of dam removal recommendation out of the study, which will have significant impacts on the existing Iron Works parkland design and the local riparian landscape behind the Lincoln Club. The dam is privately-owned and not under town jurisdiction.

Paper Mill Village Backwater

The Paper Mill Village Backwater is above the ruins of a collapsed former mill dam on the Taunton River, just downstream of Mill Street. The mill dam collapsed some years ago, but the remnant continues to raise the Taunton River causing backwater.

[9] Massachusetts Cultural Resource Information System, http://mhc-macris.net/.

Vernal Pools[10]

Vernal pools are ephemeral bodies of water that do not support predatory fish and provide essential spring breeding habitat for various amphibian species, including wood frogs and blue-spotted salamanders. Vernal pools are protected by the Massachusetts Wetlands Protection Act, but must be certified as vernal pools before falling under this protection. The town has 13 Certified Vernal Pools and approximately 300 Potential Vernal Pools[11]. More details are presented in the Fisheries and Wildlife section later.

Flood Hazard Areas

Flood hazard areas are largely portions of the Hockomock Swamp in the northwestern corner of the town, and along river-side swamp and farmland. These are mapped in the eastern-most corner of the town just past East St.; from Auburn St. to and along Spring Brook; from Summer St. to Sawmill Brook and adjacent wetlands; on to lowland by Sturtevant's Bridge; south under Forest Street and then though Sturtevant's Pond, and up Snow's Brook to Pleasant St. Thus far, risks and losses due to flood hazards have been slight due to the terrain affected and to effective Flood Plain District zoning regulations.

Wetlands

The town has an estimated 3,048 acres in wetlands. These include 459.4 acres of non-forested wetlands such as streamside marshes and wet meadows, and extensive areas of wooded swamp[12]. Some wetlands are along streams or contain streams, as the state's largest, the Hockomock Swamp, does, while others are isolated. Very few are along the edge of the Taunton River due to its banks being generally fairly steep.

The Hockomock Swamp, the largest fresh-water swamp in Massachusetts, is an Area of Critical Environmental Concern (ACEC) and comprises 16,800 acres located in the towns of Bridgewater, Easton, Norton, Raynham, Taunton, and West Bridgewater. The Secretary of Environmental Affairs approved designation of this ACEC area in 1990. The Massachusetts Division of Fish and Game owns approximately 5,000 acres of the Hockomock Swamp.

Areas of Critical Environmental Concern

Areas of Critical Environmental Concern (ACECs) are places in Massachusetts that receive special recognition because of the quality, uniqueness, and significance of their natural and cultural resources. These areas are identified at the community level and are reviewed and designated by the state's Secretary of Environmental Affairs. ACEC designation creates a framework for local and regional stewardship of these resources.

Aquifer Recharge Areas

[10] Vernal pools definition and regulation information excerpted from the MA Executive Office of Energy and Environmental Affairs website: www.mass.gov and go to EOEEA.

[11] Number of Potential Vernal Pools based on authors query using MassGIS online data in January 2014 through Oliver: www.mass.gov go to MassGIS.

[12] The last are difficult to measure by aerial photography since they can look much like upland forests. However, USGS sheets do have a separate pattern for wooded wetlands.

Aquifer recharge is essential in maintaining the groundwater table which the town relies on. It is also important to maintain water as a general resource, particularly in areas where it is reflected in pond levels.

Recharge is greatest over coarse soils, like sand and gravel, or where it is augmented by use of devices such as the rain gardens or underground recharge galleries used for storm water management. It is limited over surfaces with a high rate of runoff such as sloping lawns, tight clay-like soils, or ledge, and none occurs over paved surfaces. In such cases water runs more rapidly to storm drains and the stream system, leading to increased downstream flooding.

Recharge is most important where it directly supplies aquifers drawn on for water supplies. Thus it would be important to maintain or increase recharge over the Matfield River and , Carver's Pond Zone II areas, and the Raynham recharge area that encompasses Lake Nippenicket over which the Aquifer Protection Zoning District is mapped. However, it is also important to maintain recharge in outlying Zone III areas from which groundwater eventually flows to the Zone II areas (i.e., the areas from which water is drawn by a well over a 6-month drought.)

The areas with the greatest recharge potential can be identified on a soil map and they are suggested by the areas with fewest limitations for septic systems, since those limitations frequently reflect tight soils as well as high water tables. (However, some lands with highly porous soils have septic limitations due to steep slopes.)

In general, the areas with a high recharge potential are quite scattered and often close to soils with severe septic limitations. The areas with a high recharge potential are those with coarse sandy soils with high porosity which allow rapid movement of water down through soil layers to the aquifer. These patterns can be derived from the maps and descriptions in the U.S. Soil Conservation Service's 1969 Plymouth County Soil Survey.

In addition to maintaining the quantity of recharge, it is important to protect its quality. Therefore, storm water management systems using leaching catch basins, underground recharge galleries, or detention ponds are often preceded by water quality devices which remove oil or grease along with sediments, particularly those carrying nutrients or contaminants.

For these reason too, areas of high porosity located close to or over Zone II areas should get a higher priority for protection. However, the areas with high recharge potential are so frequent and so scattered that it would not be practical or necessary to try to protect them all through ownership. Thus Bridgewater should not rely upon land ownership and land protection alone to maintain recharge and water quality. Instead it is important that it has the effective protective regulations discussed earlier combined with subdivision regulations and water management policies to minimize runoff and enhance recharge in outlying areas, regardless of ownership.

Water Quality Protection

Water quality is protected by multiple federal, state, and local regulations including the, federal Clean Water Act, federal Safe Drinking Water Act, Title V - State Environmental

Code, town's Groundwater Protection zoning, town's Aquifer Protection zoning, local wetlands protection, town's Flood Plain zoning, and the town's Subdivision Regulations.

Federal Clean Water Act[13]

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, EPA has implemented pollution control programs such as setting wastewater standards for industry. We have also setThere have also been water quality standards set up for all contaminants in surface waters.

National Pollutant Discharge Elimination System[14]

The 1972 amendments to the Federal Water Pollution Control Act (known as the Clean Water Act or CWA) provide the statutory basis for the National Pollutant Discharge Elimination System (NPDES) permit program. NPDES requires permits for all municipal, industrial, and commercial facilities that discharge wastewater directly from a point source (a discrete conveyance such as a pipe, ditch or channel) into a receiving water body (lake, river, and ocean). Like most communities, Bridgewater is required to obtain a permit for its municipal separate storm sewer system (MS4) under the NPDES program. Bridgewater must have an NPDES permit for discharge from the Wastewater Treatment Plant to the Town River and Taunton River Watershed.

The town is in "administratively continued"[15] status with the NPDES permit and is working to fulfill obligations to complete storm water documentation, however it is expected that the EPA will issue more stringent requirements soon, which will likely require major capital improvements and upgrades. The recently revised 2016 Massachusetts Small MS4 General Permit was signed April 4, 2016 and will become effective July 1, 2017. The final permit reflects modifications to the 2014 draft small MS4 general permit released for comment on September 20, 2014 and replaces the 2003 small MS4 general permit for MS4 operators within the Commonwealth of Massachusetts. In addition to the requirements of the previous permit, the revised permit will require towns to encourage Low Impact Development (LID) and Green Infrastructure (GI) practices for stormwater management.

Federal Safe Drinking Water Act[16]

The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. Congress passed SDWA in 1974 to protect public health by regulating the nation's public

[13] EPA "Summary of the Clean Water Act:" www2.epa.gov/laws-regulations/summary-clean-water-act.
[14] NPDES description excerpted from EPA Region I website: www.epa.gov/region1/npdes/index.html.
[15] According to the Manomet Center for Conservation Science report "Taunton River Watershed Climate Change Adaptation Plan," the Town of Bridgewater's "publicly owned treatment works facility" has an NPDES permit status of "administratively continued" and is awaiting the assignment of a permit writer from the US Environmental Protection Agency for permit #MA 0100641, issued 12/30/2003 (p. 22).
[16] EPA "Safe Drinking Water Act:" http://water.epa.gov/lawsregs/rulesregs/sdwa/.

drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells.

Title V – The State Environmental Code

Title V 310 CMR 15.00 the State Environmental Code regulates septic systems in Massachusetts and was most recently amended in January 2014. Local Boards of Health are the primary regulatory authorities. However, the Massachusetts Department of Environmental Protection (DEP) is involved in certain approvals, including many innovative/alternative technology approvals, shared systems, large systems and many variance requests. In addition, DEP is responsible for overseeing local implementation of Title V and provides local governments with training and technical assistance.

Groundwater Protection Zoning

The Town's water supply is protected by the Groundwater Protection Zoning described below. First adopted in 1988, it was updated in 1994 in accordance with Massachusetts Department of Environmental Protection Guidelines. Some of the wells serving East Bridgewater and Middleborough are close to Bridgewater and two wells serving Raynham are near Lake Nippenicket. The Zone II primary recharge areas for East Bridgewater and Bridgewater overlap near the Matfield River. A small portion of East Bridgewater's Aquifer District, just east of Bridgewater's Stump Pond, and extensive areas of Raynham's Aquifer District, west and south of Lake Nippenicket, are included in Bridgewater's mapped Groundwater Protection District.

According to the Bridgewater Water and Sewer Department, the Town's potable water quality meets all federal and state standards. The only resident complaints regarding water quality occur when the town is the process of a flushing program, which is usually performed in the fall. Flushing is more frequent and has the most noticeable impact on water quality in areas that have "dead ends," which are part of the system where water is not looped (linked) to other water mains. The Town is currently moving forward with a filtration plan.

Aquifer Protection District

Bridgewater's Aquifer Protection District, per Section 15 of the Zoning Bylaw (see Appendix 1, Map 5), protects the Town's main aquifers and land significantly recharging the aquifer. It prohibits or limits uses potentially contaminating the aquifer and requires special permits for dams, paved areas, or other uses affecting storm water management and recharge, and sets standards for storm water management systems. The District extensively covers the sensitive areas, particularly in the northeastern section of the Town, the area around the southern portion of Carver's Pond, and a north-south strip west of Routes 18 and 28. The OSRP suggested that it would be important to maintain or increase recharge over the Matfield River and Carver's Pond Zone II areas, over which the Aquifer Protection District is mapped. However, it is also important to maintain recharge in outlying Zone III areas from which groundwater eventually flows to Zone II (Zone II areas are those from which water is drawn by a well over a 6-month drought).

The current bylaw could be strengthened with the addition of performance standards for nitrogen management. Nitrate-nitrogen is a public drinking water contaminant that poses a health hazard and is linked to "blue baby syndrome" and cancer and may be an indicator of the presence of wastewater and other dangerous compounds.[17]

Local Wetlands Protection

The Town adopted a local Wetlands Protection By-law, updated 3/2009. Such bylaw can regulate current activities as well as proposed activities regulated by zoning, and can go further than the Wetlands Protection Act (Ch.131, S. 40). Thus, the bylaw can prohibit alterations within 100 feet of a wetland, while the Act requires filing a Notice of Intent to work within 100 feet of a wetland, but can only regulate work within the resource area or directly affecting it. In addition, the bylaw may include protection of resources and values (e.g. aesthetics, recreation, and agricultural values) not covered under the Act. Further, decisions under the bylaw can be appealed only to Superior Court, while decisions under the Act may be appealed to the Department of Environmental Protection. According to estimations by the Planning Department (February 2014), Bridgewater has over 3,000 acres of wetlands.

Flood Plain District

The Flood Plain (overlay) District is to prevent residential use of land that floods seasonally or periodically, to protect and maintain the water table, and to ensure proper function of watercourses to provide adequate and safe floodwater storage capacity. The District covers areas mapped as Zone A, A1-30 per the 2012 FEMA Flood Insurance Rate Maps and Flood Boundary and Floodway Maps. The Bridgewater Zoning Board of Appeals may allow development in the mapped flood plain if it can be done safely without causing problems elsewhere (for example, by taking up needed flood storage and endangering downstream uses, or conversely, blocking flow and causing flooding upstream). The Planning Board recently upgraded its Rules and Regulations for drainage design in compliance with DEP's Best Management Practices to further protect flood plains.

Subdivision Regulations

Bridgewater's Subdivision Regulations include water quality protection primarily through the Low Impact Development Performance Standards (LIDP Standards) and sedimentation controls. The LIDP Standards are intended to prevent "soils or other eroded matter from being deposited onto adjacent properties, rights of ways, public storm drainage system, or wetland or watercourses" and are based on the MA Erosion and Sediment Control Guidelines for Urban and Suburban Areas, 1997, as amended. In addition, the Subdivision Regulations include an allowance for the Planning Board to require a Sediment Control Plan, dependent on the nature of the proposed subdivision. The purpose of the plan would be to "reduce the amount of top soil erosion that occurs when land is disturbed during development and to reduce the resultant pollution of streams, natural drainage ways, and other water courses." The plan would prescribe methods such as berms, dikes, detention ponds, mulching, and temporary sodding.

[17] Information on nitrate-nitrogen excerpted form "Cape Cod Commission Model Bylaws and Regulations: Model Aquifer Protection Bylaw:" www.capecodcommission.org and go to "resource center."

Protected Riverside Properties

Protected holdings along the rivers include the following properties:

- 70-acres Calthrop Trust Conservation Restriction (Private)
- 20-acre Stanley Iron Works Site (Town)
- 70-acre Stiles and Hart Site (Town)
- 32-acre Tuckerwood site (Town)
- Town River Landing site (Town)
- 35-acre Wyman Meadow (Town)
- 27.8-acre Titicut Reservation (Town)
- 12.5-acre Packard Conservation Restriction (Wildlands Trust of Southeastern MA)
- 230-acre Great River Preserve (Wildlands Trust of Southeastern MA and MA Department of Fish and Game)
- 41.2-acre North Fork Preserve (Wildlands Trust of Southeastern MA)
- 105-acre Taunton River Wildlife Management Area (MA Department of Fish and Game)
- The Water Department's 18.0 acres next to the Titicut Reservation Conservation Parkland (Town)
- 425-acre Bridgewater Correctional Complex/Old State Farms property protect as Article 97 land

In addition, the town owns a 2.6-acre unprotected house lot (Map 25/ Lot 81) running from Plymouth Street steeply down to the Taunton River just west of Jillian's Way; and further downstream, west of Routes 18/28 the Wildlands Trust of Southeastern Massachusetts has a Conservation Restriction on a 12.69-acre parcel (lot 118/4) off of South street, just east of Dickens Street. This preserves the land, but offers no public access

In all the town, the Wildlands Trust and the State control roughly 5.5 miles of protected river frontage on the Town and Taunton Rivers. An additional approx. 1.6 miles of partially ("limited") protected Taunton River frontage is owned by the Highway and Water departments, along with a .66-mile stretch of partially ("limited") protected Water Department lands on the Matfield River.

Vegetation

Rare and Endangered Plant Species

Many of Bridgewater's rare plant species are associated with the Town's extensive wetlands. It is important to protect both the wetland forests, pine forests, vernal pools, and open nesting.

The two species of orchid noted in the table below are based upon historic records from along the Taunton River and Lake Nippenicket, last seen almost a full century ago, while

Long's Bulrush is still found in open wet meadows often maintained by fire, such as Acidic Graminoid (grassy) Fens and Sedge Meadows. The pink-and-yellow flowered Plymouth Gentian and the Round-fruited False-loosestrife grow on the wet shores of ponds and lakes and require fluctuating water levels to maintain their populations.

Table 5 Rare Flora Species Documented in Bridgewater

Scientific Name	Common Name	MESA Status	Most recent year seen
Ludwigia Sphaerocarpa	Round Fruited False-loosestrife	E	2005
Platanthera ciliaris	Orange Fringed Orchis	Historic	1970's
Platanthera flava var. herbiola	Pale Green Orchis	T	1912
Sabatia Kenndyana	Plymouth Gentian	SC	2005
Scirpus longii	Long's Bullrush	T	2003
E= Endangered T=Threatened SC=Special Concern Historic=No longer occurs in Massachusetts. DL=Delisted			

Source: The Natural Heritage & Endangered Species Program (NHESP)

BioMap2

Undeveloped land, whether in private or public ownership, provides wildlife habitat important for biodiversity and the survival of rare and endangered species. The Massachusetts Natural Heritage and Endangered Species Program BioMap 2 identifies wildlife species and habitats critical to protecting the state's biodiversity in the context of climate change. Bridgewater has approximately 4,500 acres of *BioMap2* Core Habitat, of which approximately 23% is protected from development, just over 3,800 acres of *BioMap2* Critical Natural Landscape, of which about 28% is protected, and one forest core.

The components of Core Habitat include rare species, vernal pools, forest cores, wetland cores, and aquatic cores. The components of Critical Natural Landscapes include landscape blocks, upland buffers, and upland habitat. Bridgewater's forest core includes large intact forests that provide critical habitat for woodland species. In addition, forests play a key role in mitigating effects of climate change due to carbon storage potential. The BioMap2 forest core in Bridgewater is an area located between Elm Street and North Street, seen on the map below in dark green.

In addition to the Hockomock Swamp area, Bridgewater has Core Habitat along southern Broad Street and along the Town and Taunton rivers, including the former Calthrop Trust property off of Cherry Street.

Fisheries and Wildlife

Rare and Endangered Wildlife Species

Many of Bridgewater's rare animal species are associated with the Town's extensive wetlands. It is important to protect both the wetland forests, pine forests, vernal pools, and open nesting.

The categories used in descending order of risk are Endangered (E), Threatened (T), of Special Concern (SC), and Delisted (DL). It is important to protect both the wetland forests used by Spotted Turtles and the dry oak and pine forests used by Eastern Box Turtles along with the vernal pools and open, often sandy nesting areas which they all use. The endangered Northern Red-Bellied Cooters (nee Plymouth Red Belly Turtle) are the most aquatic local vertebrates, living in ponds and nesting in adjacent open beaches. Many wetland species like spotted salamanders, Wood Turtles and Spotted Turtles use upland forests for most of their lives. Wood Turtles (SC) are found in large streams and rivers, adjoining forests. They spend more time in the water than the delisted Spotted Turtle (DL) or the Box Turtle (SC), but travel over land between rivers and to upland nesting places.

The listed and delisted birds (Cooper's Hawk (DL), the Grasshopper Sparrow (T), Long-eared Owl (SC), Upland Sandpiper (E), and Barn Owl (SC)) include species primarily found in grasslands and open areas near forest. Bridgewater's remaining farm fields and the riparian areas along the Rivers, particularly on the Old State Farm/BCC lands supply such habitat. The Town's rare invertebrates include freshwater mussels in the Taunton River and Lake Nippenicket, and two types of damsel flies breeding in small ponds and living in nearby wetlands and forests. Both require clean water. The damsel flies are found in the mosaic of wetland types in the Hockomock swamp. These also provide habitat for the Water Willow Stem Borer Moth.

It is critical for habitat of threatened species to protect the Town and Taunton rivers with riparian buffers and ongoing pollution control (e.g., upgrades to the Brockton and Bridgewater wastewater treatment plants) and flow maintenance for a healthy riverine ecosystem and to enhance survival chances of threatened species.

Vernal Pools

The town has 13 Certified Vernal Pools and approximately 300 Potential Vernal Pools. These pools are good breeding habitat, especially for salamanders, frogs and other small amphibians because the seasonal nature of the pools prevent predator fish populations. Some vernal pools are protected in Massachusetts under the Wetlands Protection Act regulations, as well as several other federal and state regulations. The NHESP serves the important role of officially certifying vernal pools that are documented by citizens, researchers, and other parties.

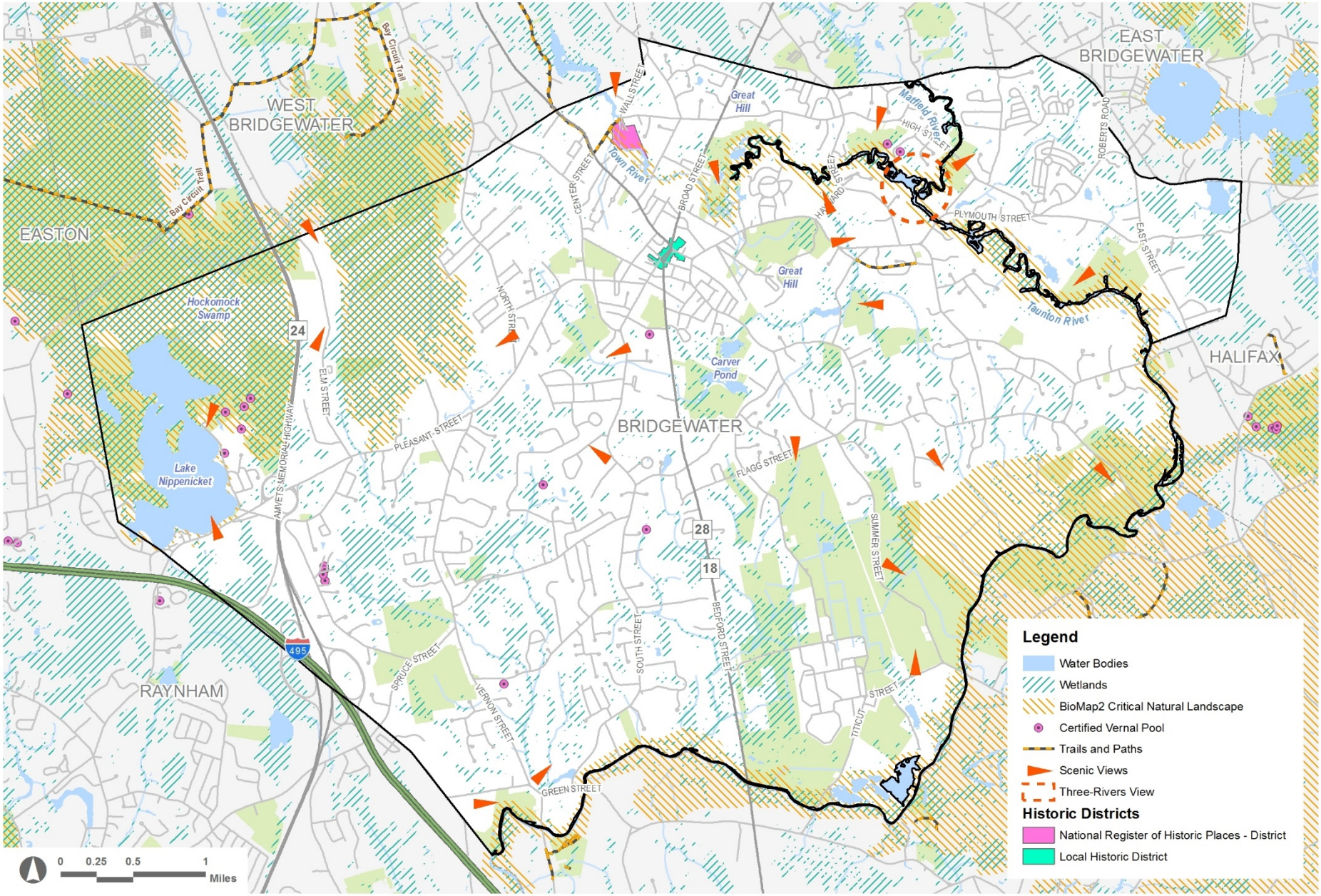
There are clusters of Certified Vernal Pools located on land east of Lake Nippenicket, two on private property, three on land owned by the Commonwealth, and on private property near Pine Street and Beal Road. Other Certified Vernal Pools are scattered throughout Bridgewater.

The roughly 300 Potential Vernal Pools identified by aerial photography should be further studied to determine eligibility for certification. Certification provides greater protection from negative impacts for these unique habitats.

Scenic Resources and Unique Environments

Landscapes

The town's most compelling landscapes are its open fields, particularly along Summer Street through the inactive BCC/ Old State Farmleased acreage on the Old State Farm at BCC, and Flagg Street soccer fields on BCC land, the Taunton River Wildlife Management Area, the Great River Preserve, the long view up Lake Nippenicket and many shorter views along the rivers from bridges, such as the view up the Matfield River from High Street. The approximately 200-acre Cumberland Farm fields (approved for a solar field and other land use changes) are significant despite being hidden from upland view by woodlands and development, except from along Curve Street south of Auburn Street which allows a view of approximately 2,400 feet of river frontage. This view is a key part of the river's wild and scenic sometimes pastoral character. Some views have been degraded by alterations such as the paved wellfield access drive bisecting the Wyman Meadow rather than running along its edge. Other iconic landscapes are the fleeting view of the former McIntyre's farm field from Plymouth Street and the charming town center views of Central Square.



Source: MassGIS, Town of Bridgewater

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Map 5
Scenic Resources and Unique Features

The town has a number of potential Scenic Ways proposed in multiple earlier Open Space Plans. These include:

- Auburn Street
- Spruce Street
- Summer Street (South of Flagg Street)
- Elm Street (Northern portions)
- Plymouth Street (East of Pond Street)
- South Street (South of South Drive)
- Lakeside Drive along the edge Lake Nippenicket

These roads have not been officially designated by Town Meeting according to the Town Clerk and the Planning Board. Thus they do not have the protection afforded by a mandatory Planning Board hearing before road- side trees can be cut or stonewalls may be altered, yet they add to the town's character and should be protected.

Characteristic Geologic Features and other Resources

The town's main geologic feature is its virtual enclosure by the Town and Taunton Rivers. Opportunities to view them, to protect their water quality and to increase usable access are central to this plan and its recommendations. The town's two main hills, Great Hill on the BSC BSU campus (157 feet above mean sea level [msl] and Sprague's Hill (170 feet msl) on the East Bridgewater line, could be pleasant viewing points except that each is dominated by a large water supply tank and is otherwise largely tree covered. However, such opportunities might well be explored consistent with tank security since each is accessible by the water tank access road.

Hockomock Swamp Area of Critical Environmental Concern

The 16,950- acre Hockomock ACEC was designated by the Secretary of Environmental Affairs in the 1990 after extensive research and advocacy led by Bridgewater residents concerned with the implications of potential commercial and residential growth, particularly around Lake Nippenicket.

In Bridgewater the ACEC includes the western end of the town west of Pine Street, and much land east of Rte. 24 about two thirds of the way to North Street. It includes much Ch. 61B land and land in the Hockomock Swamp Wildlife Management Area. This is only a small portion of the ACEC which extends far into Raynham, Easton, Taunton, Norton and West Bridgewater. The designation does not prevent development but it requires lower thresholds for jurisdiction and a higher standard of review than apply elsewhere.

Cultural, Archeological and Historic Sites

Bridgewater's cultural and historic sites are largely proximate to the Central Square area. They have been discussed in Section 3 where a list of all major historic structures and places is provided. Native American archeological sites might be expected along the rivers and

nearby fertile fields, but original inhabitants' seasonal movements along the river system involved very few permanent settlements and left few artifacts.

In addition to the churches and former schools listed earlier, most notably the Academy Building, the town's major cultural resource is Bridgewater State CollegeUniversity. This is the flagship of the state college system and brings many classes, concerts, plays, athletic events and other cultural happenings to the town and the region.

Environmental Challenges

Hazardous Waste and Brownfield Sites

According to the Massachusetts Department of Environmental Protection (MassDEP), there have been a total of 148 reportable oil and hazardous waste release incidents or sites in Bridgewater since 1987. A vast majority of these incidents either were relatively minor, low risk oil releases involving a response that did not require oversight by DEP or a Licensed Site Professional (LSP), or have achieved permanent solutions sufficient to reach a level of no significant risk. Most of these required oil or hazardous waste remediation efforts which are the responsibilities of private parties.

There are three "Tier classified" incidents in Bridgewater, indicating a type or an extent of contamination that poses a higher risk to the public. The auto service/gas station at 380 Main Street and the auto parts dealership at 95 Water Street were classified as Tier 2 sites, which warrant clean-up under LSP supervision but don't require a DEP permit as they do not involve a high enough risk. The site at 552 Bedford Street was classified as Tier 1D. This is a default classification that DEP assigns when the responsible party misses a regulatory deadline, e.g., failing to file a report, etc. Bridgewater has no Tier 1 high risk site with evidenced high level of groundwater contamination.

In addition, DEP has identified two sites in Bridgewater, located at 31 Perkins Street and 1615 Bedford Street respectively, that are subject to Activity and Use Limitation (AUL). These are remediated (and sometimes un-remediated) sites that can be used for new purposes but are subjected to restrictions as recorded with the deed due to the nature of the contaminations.

Landfills

The inactive former town landfill at Conant and Winter Streets presents no problems because the groundwater flows south, away from the Carver Pond wells. In addition, in its later years the site was a "burned landfill" in that waste was burned in cells before they were covered, leaving very little to decay and produce harmful leachate.

The Bridgewater Correctional Complex to the south formerly was self-sufficient with on-site wells. These were closed when the facility tied into the City of Taunton system years ago and no problems were found.

The capped but unlined commercial Chuckran landfill to the south off Rte.18 also presents no problems. The owner maintains monitoring wells around the site and the results are reviewed by DEP.

Erosion and Sedimentation

Stream or pond sedimentation from agricultural or construction erosion is not a significant problem in Bridgewater. Construction erosion is limited largely because the land is relatively level and because most projects involving excavation and grading are required to use straw bales, settling basins and other sedimentation control measures. Agricultural erosion and sedimentation are also limited because most cultivated farmland is separated from streams and ponds by bands of varied natural vegetation which trap water-borne sediment.

Chronic Flooding

There have has reportedly been minor flooding incidents at various locations in Bridgewater that require temporary road closures, such as along South Brook at Skeeter Mill Pond on Water Street, at Water and Wood Streets, and at Hayward Street; on Snow's Brook at Cross Street; and on the Matfield River at Bridge Street. These have resulted in no, or very minimal property damage.

Development Impacts

New developments have possible impacts on the water quality and open space preservation of a community. With adequate management and regulatory measures, these pPotential negative impacts can be prevented or mitigated, with adequate management and regulatory measures.

Stormwater runoff associated with new development is addressed through application of federal and state stormwater regulations as well as more stringent local stormwater policies required by Bridgewater. Decreased water quality with inadequate wastewater management is a potential concern in any growing community. Bridgewater's present source water is protected by a number of regulations as detailed in the Water Quality Protection section of this report above. The town's Aquifer Protection Bylaw reflects the latest DEP standards and includes Zone II areas of adjacent communities.

Bridgewater adopted Open Space Conservation Development zoning regulations in 2016. The intent is to preserve large tracts of open space for natural and historical resource protection and to protect and foster Bridgewater's rural and scenic character by promoting residential development that is in harmony with natural features and traditional landscapes.

Ground and Surface Water Quality

In the past, nitrogen loading has been a major problem at Lake Nippenicket, but more recently there has been greater concern with sedimentation and eutrophication. These are also increasingly evident in the town's other major ponds such as, Carver's Pond, and are thought to partially reflect nearby failing septic systems.

The Matfield River showed low oxygen levels and high nutrient levels when tested by the Water Access Laboratory at Bridgewater State CollegeUniversity from 1996 to 2005. Upgrading of the upstream Brockton wastewater treatment plant is expected to improve the situation. The 2016 Water Quality Sampling study conducted by the Taunton River Watershed Alliance shows that the nitrate level rage of Matfield River during June to September was between 1.9-2 mg/l, which is 5 times the target level at 0.4 mg/l.

Impaired Water Bodies

Both Lake Nippenicket and Carver's Pond have been assessed as impaired according to the Department of Environmental Protection's (MassDEP) 2014 Integrated List of Waters. Lake Nippenicket was classified as a Category 4A waterbody impaired for fish consumption and aquatic plants but does not require the development of a TDML. Total Maximum Daily Load (TDMLs) indicates the greatest amount of a pollutant that allows a waterbody to meet water quality standards for public health. Impairments to Lake Nippenicket are caused by atmospheric deposition toxics. Carver's Pond was classified as a Category 4C waterbody impaired for non-native aquatic plants but does not require the development of a TDML.

Invasive Species

A water quality related need, is management of invasive aquatic vegetation or marine life in Bridgewater's ponds, since these can heighten eutrophication and threaten native species. One potential mitigation measure is providing signage at the town's canoe/kayak boat launching areas warning users to clean off boats and equipment before moving from one stream or pond to another.

According to the Highway and Forestry Superintendent, Bridgewater presently has no major infestations affecting its trees other than periodic Winter Moth or Gypsy Moth infestations. The European Winter Moths were first noticed in Nova Scotia in the 1930s and now range through coastal Massachusetts from Gloucester to Orleans on Cape Cod and a few areas to the west and south of the Massachusetts Turnpike. The larvae hatch when the temperatures average 55 degree and begin eating buds and leaves on many local trees and shrubs including apples, elm, maple, ash, crabapple, cherry, and blueberry until mid-June. There are no local natural controls, but UMASS is collecting and breeding a parasitic fly that has been effective elsewhere. The Superintendent notes that the extremely destructive Asian Long Horned Beatle found in the Worcester area has not progressed far in this direction.

Environmental Equity

Environmental Equity refers to not only the idea that no population, particularly those vulnerable low income/minority "Environmental Justice" populations, should have a disproportionate exposure to negative environmental features, such as hazardous waste sites or facilities, but also that no population should have disproportionate distribution of open space and recreation resources in more privileged neighborhoods within a community. As mentioned earlier, Bridgewater has no Environmental Justice population according to the latest 2010 US Census. Nor does the town have areas of degraded environment such as open land fill or hazardous waste sites that pose significant public health concerns.

As shown on the Map 6 Inventory of Lands of Conservation and Recreation, the Town's recreation facilities and open spaces are well dispersed throughout the community. In addition, the majority of the Town's active recreation facilities are located within or close to population centers of Bridgewater, indicating that a good percentage of the Town's population currently has good access to recreation resources. Therefore, there is no immediate Environmental Equity issue in Bridgewater.

Introduction

This section presents an inventory of Bridgewater's open space and recreation resources, such as lands of recreation, conservation, habitat, scenic, and water resource interest, ; whether protected, partially protected, or unprotected. The Open Space and Recreation Inventory matrix provided here includes conservation and recreation land owned by the Town of Bridgewater, the state, and non-profit entities as well as private lands that fall under Chapter 61, and private lands of Conservation Restrictions (CRs).

Much of the land listed in this inventory matrix provides extensive passive and active recreational opportunities. It is intended to help guide the town's actions in protecting land for broadly-defined open space and recreation purposes. The protection of such land is important if the community is to remain a place where recreation opportunities are adequate and accessible, wildlands are nearby and nature is present and abundant. On the other hand, it should be recognized that the Town doesn't have jurisdiction or responsibilities over the various state properties and private land holdings.

It's important to understand the status of protection for various inventoried open space and recreation properties in Bridgewater. Listed below are details of different levels and types of protection.

- High Protection: "In Perpetuity" refers to land held for conservation, recreation or wildlife protection purposes and appropriately deeded to the Conservation or Recreation Commission, to a state agency or to a non-profit land-holding agency and/or protected by a binding Conservation Restriction or Agricultural Preservation Restriction, or to a lesser extent by inclusion the state Constitution's Article 97.
- Moderate or Limited Protection: "Temporary" refers to land held by public agencies for other purposes such as water supply or education and protected as long as it is needed for the basic purpose. Examples would be water supply lands, school sites, or state college and correctional facilities which could be vacated and sold for other purposes if no longer needed.
- Low: "Minimal" refers to miscellaneous town holdings serving no public purpose, commonly acquired through tax title takings and available for sale.
- Unprotected: "None" refers to publicly or privately-owned undeveloped land with no protection.

These categories are made more complicated by the provisions of Chapters 61, 61A and 61B and the effects of Article 97.

The Chapter 61 provisions allow owners of Classified Forest, Farm Land, and Recreation land to be taxed based on the land's value in its present use, rather than at its speculative "highest and best use". In exchange, the owner gives the community (or a designated non-profit or public agency) a "right of first refusal" if the site is proposed for a change in use or offered for sale. This allows the community or agency to buy it by meeting the terms of any bona fide offer. This is often treated as a form of protection but it has no effect unless the

community chooses to act and is able to act (alone or through a designee.) Thus its' significance is for the opportunities it offers.

Article 97 requires votes of the local government and a two-thirds vote of the General Court before broadly-defined "parklands" may be sold, transferred, or converted to a different use. Because the chance of this happening is so small, Article 97 lands are considered to be protected in perpetuity. Through the efforts of the Natural Resources Trust of Bridgewater (NRTB), the General Court applied such protection to the peripheral, southern and riverside portions of the Bridgewater Correctional Complex (e.g., MCI Bridgewater) known as the Old State Farm. In response, the MassGIS map of Protected Land shows these areas as protected in perpetuity.

Communities may also be required to replace farmland or protected land converted to other uses (particularly if acquired with public assistance) either in-kind, or with a comparable payment.

Open Space and Recreation Inventory

The following Open Space and Recreation Inventory matrix is organized by the following columns:

- **Property/Address:** Indicates streets of where the properties are located.
- **Map/Lot:** Indicates map and lot numbers of the properties on the Town's Assessors' maps.
- **Size (acres):** Indicates acreage of properties or an approximation in case where specific information was not attainable.
- **Owner/Manager:** Indicates owners of the properties and the agency or department responsible for managing and maintaining the properties.
- **Current Use:** Indicates main use for the properties.
- **Conditions:** Indicates site conditions (excellent, good, fair or poor).
- **Public Access:** Indicates status of public accessibility.
- **ADA Accessible:** Indicates whether people with disabilities can access the site or its amenities.
- **Recreation Potential:** For land not currently used for recreational purposes, potential for recreational activities is identified. Conservation land is generally deemed to have limited recreation potential except for passive recreation such as hiking and walking.
- **Zoning:** Indicates zoning districts in which the property is located.
- **Protection Status:** Indicates whether the site, either by virtue of its zoning, ownership, existence of deed restrictions, or by the fact that it has received state or federal funding, is protected against conversion to some other use (see below).
- **Grant Received:** Where applicable, identifies the source of funding for the acquisition of the parcel, including public grants, private donations, deed restrictions, etc.

The information contained in the inventory is based on information in the 2009 Open Space and Recreation Plan, survey work of open spaces and recreational facilities by staff at the Parks and Recreation Departments, and Assessors' data updated through fiscal year 20132015.

Town-owned Open Space and Recreation Land

PROPERTY	MAP-LOT	Size (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Aldrich Rd.	9-27	5.30	Town	Open Space	Fair	Yes, no fee	No	Low	RA/B	Low	N/A
Auburn St. Cemetery Auburn St.	77-17	0.76	Town	Open Space/ Historical Resource	Good	Yes	No	None	RA/B	Perpetuity	N/A
Bedford St. Woods Bedford St.	120-1	11	Town	Open Space	Fair	Yes, no fee	No	Low	SB/D	Low	N/A
Bob White Ln./Old Forest St. Bob White Ln.	99-49,50, 51,53, 55,65	9.90	Town	Open Space	Fair	Yes, no fee	No	Low	RA/B	Low	N/A
Red Wing Dr.	98-87	0.55	Town	Drainage/Wetland	Fair	No	No	None	RA/B	Perpetuity	N/A
Bridgewater Middle School Center St.	33-47 33-48	21.00	Bridgewater-Raynham School District	Football, tennis courts, baseball and soccer fields	Good	Yes, no fee		Moderate	RA/B	Limited	N/A
Broad St.	4-1	2.67	Town	Open Space	Fair	Yes, no fee	No	Low	R/D	Low	N/A
Carver's Pond watershed Winter St./Conant St.	49-27 49-44 62-28 63-2 63-18 63-19	70.1	Conservation Commission/ Water & Sewer Dept./ Audubon	Passive Recreation, water supply protection	Fair	Yes, no fee	No	Boating, hiking	R/C, R/D, B/B	Perpetuity Moderate as water supply protection	N/A

PROPERTY	MAP-LOT	Size (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
	63-20 63-21										
Music Alley	34-188	0.1	Town and private	Outdoor music	Good	Yes, no fee	Yes	Maximized	CBD	High	CPA
Chaffee Farm Vernon St.	109-8 109-12 109-13	60.00	Town/ Golf Commission/ Highway Dept./	Town compost/Open Space	Fair	NA	No	High but time sensitive	RA/B	High	N/A
Cobblestone Lane Subdivision Vernon St.	98-3	21.50	Conservation Commission/ Town	Open Space/ Conservation	Fair	Yes, no fee	No	Limited	RA/B	Perpetuity	N/A
Crescent St. Fields Marathon Park Crescent St.	47-115	49.90	Recreation Commission/ Conservation Commission	Conservation/ Softball, playground, picnicking, wetland, open space, hiking	Very good	Yes, no fee	Yes	Almost maximized Potential to add walking trails	RA/B	Perpetuity	N/A
Cross St.	110-16	2.30	Town	Open Space	Fair	Yes, no fee	No	Low	RA/B	Low	N/A
Dundee Dr.	98-7 98-31	20.10	Town	Open Space	Fair	Yes, no fee	No	Low	RA/B	Low	N/A
East St. Sand Pit Tony Terrace	54-7	18.00	Highway Dept.	Sand pit for Highway Dept.	Fair	No	No	Moderate	RA/B	Moderate	N/A
Emerald Lane	117- and 119-	19.1	Town	Open Space	Fair	Yes, no fee	No	Low	RA/B	Low	N/A

PROPERTY	MAP-LOT	Size (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Cross St.	multiple										
Great Hill Water Tank Great Hill Dr.	35-31, 32, 33	10.67	Water Department	Water tank	Fair	Yes	No	Low	R/D	Moderate	N/A
Heather Hills Woods Heather Hill Dr.	123-2	6.15	Town	Open Space	Fair	Yes, no fee	No	Low	RA/B	Low	N/A
Iron Works Park High St.	10-40 11-3	16.00	Conservation Commission/ Highway Dept.	Conservation, Passive Recreation	Fair	Yes, no fee	No	Possible carry-in boat launch	I/B, R/D	Perpetuity	N/A
Jenny Leonard Park Cherry St.	52-11	10.40	Town of Bridgewater/ no designated maintenance entity	Playground	Poor	Yes, no fee	No	Moderate, add walking trails, improve upkeep	RA/B	High	N/A
Lake Nippenicket Overlook Dr., Bridle Rd., Lakeside Dr.	69-, 70-, 82-, 83-multiple	17.78	Conservation Commission	Passive Recreation/ Conservation/ Recreation	Fair	Yes, no fee	No	Water sports development	RA/B	Low/Perpetuity	N/A
Laurel St.	50-5	12.20	Town	Open Space	Fair	Yes, no fee	No	Low	R/C	Low	N/A

PROPERTY	MAP-LOT	Size (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Legion Field/Williams Middle School Rte. 18 at Cottage St.	48-86	23.3	Recreation Dept.	Basketball courts, baseball fields, skate park	Fair to very good	Yes, no fee	Limited	Maximized	R/D	High at Legion Field, moderate at school	N/A
Matfield River Lands High St.	14-11,12, 17,18	34.00	Water Department	Protection of water supplies	Fair	Yes, no fee	No	Good, esp. on parcel 14-17	RA/B/C	Moderate, as active water supply	N/A
McElwain School Rte. 28	20-40	6.42	Town	Vacant	Poor	Yes, no fee. No entry in building	No	Possible playground	R/D	Low	N/A
Mitchell Elementary School South St.	62-19	22.17	Bridgewater-Raynham School District	Playgrounds, baseball, basketball	School under construction	Yes, no fee	Yes	High improve facilities after school construction ends	R/C	Limited	N/A
New Bridgewater Raynham High School 415 Center St.	32-8 33-1,5,6, 9, 114, 123, 124	56.94	Bridgewater-Raynham School District	Football, baseball, softball, soccer, track	Excellent	Yes, no fee	Yes	High	RA/B	Limited	N/A
Old Forge Rd. Old Forge Rd.	20-25	.06	Town	Open Space	Fair	Yes	No	Low	RA/B	Low	N/A

PROPERTY	MAP-LOT	Size (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Olde Scotland Links Golf Course Vernon St.	108-1,2,7; 116-7	210.00	Town Golf Commission	Golf	Good	Yes, user fee	Yes	High for winter sports dev't	RA/B	High	N/A
Plymouth St.	25-81	2.60	Town	Open Space	Fair	Yes, no fee	No	Low	RA/B	Low	N/A
Red Mill Road Cluster Land Jaclyn Way	124-68	16.6	Town	Open Space	Fair	Yes, no fee	No	Low	RA/B	Low	N/A
Scotland Field Vernon St.	72-33	6.70	Recreation Dept.	Playground, soccer, softball, lacrosse, archery	Good	Yes, no fee		Maximized	RA/B	High	N/A
Sprague Hill Water Tank Bedford St.	4-5	7.40	Water Department	Water tank	Good	No	No	Low	R/D	High	N/A
Starr Park Starr Rd.	47-128	10.5	Town	Open Space	Fair	Yes	No	High	RA/B	Low	N/A
Stiles & Hart Conservation Area High St./Rte. 18	12-44	69.00	Conservation Commission	Conservation/Passive Recreation	Fair	Yes, no fee	No	Add canoe landing, foot bridge, parking	R/D	Perpetuity	Self Help

PROPERTY	MAP-LOT	Size (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Sturtevant's Pond Green St./South St.	132-2	3.33	Conservation Commission	Passive Recreation	Fair	Yes, no fee	No	Moderate	RA/B	Perpetuity (but Town owns only 1/3 of shore)	N/A
Titicut Conservation Parkland Beach St.	131-8, 10, 11	27.80	Conservation Commission	Campground/ Passive Recreation	Fair	Yes, no fee	No	Improve camp-ground facilities	RA/B	Perpetuity	Self Help
Titicut Water Land Vernon St.	131-7	20.20	Water Department	Acquired for well, not in use	Fair	Yes, no fee	No	High, if included with adjacent Titicut Cons. Land	RA/B	Moderate	N/A
Toole Park ("Toole Legacy") Pleasant St.	72-1	9.20	Town	Open space	Fair	Yes	No	Low	RA/B	Perpetuity	N/A
Town River Landing Spring St	21-167	2.2	Selectmen/ Park Stewards	Boat launch (part of former Highway Dept yard)	Poor	Yes, no fee	No	High	CB/D	Moderate	N/A
Tuckerwood Conservation Area High St.	14-21	33.00	Conservation Commission	Conservation/Passive Recreation	Fair	Yes, no fee	No	Add carry-in boat launch	R/C	Perpetuity	Self Help
Winter St.	76-7,8,56	4	Town	Open Space	Fair	Yes, no fee	No	Low	R/C	Low	N/A

PROPERTY	MAP-LOT	Size (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Canton St.											
Wyman Meadow Plymouth St.	39- 3,4	55.00	Conservation Commission/ Water Dept.	Conservation/Passive Recreation	Fair	Yes, no fee	No	Possible carry-in boat launch	RA/B	Perpetuity	Self Help

Source: Town of Bridgewater Assessors

State-owned Open Space and Recreation Land

PROPERTY	MAP-LOT	SIZE (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Bridgewater State CollegeUniversity Plymouth St., Grove St.	22-,34-,35-,50- multiple	211.10	BSCBSU	CollegeUniversity recreational uses	Good	Yes	Yes	Low	RA/B	Moderate	N/A
Bridgewater State Forest Water St.	50-85	58.50	Dept. of Conservation & Recreation	Passive Recreation/ Conservation	Fair	Yes	No	Moderate	RA/B	Perpetuity	N/A
Old State Farm/Bridgewater Correctional Complex State Farm Rd., Conant St.	90-999 multiple	1485.72	Dept. of Corrections	Open Space/ Agriculture	Fair	Yes	No	Low	RA/B	Limited (high on 425 Ag acres, low on remainder)	N/A

PROPERTY	MAP-LOT	SIZE (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Flagg St Soccer Fields (on Dept. of Correction land)	90-999B	14.6	Dept. of Correction/ Bridgewater Youth Soccer	Eight soccer fields	Very good	Yes, no fee	No	Maximized	RA/B	Moderate	N/A
Rainbow's End Playground & North Hay Fields Fields (on Dept. of Correction land)	90-999B	49.60	Dept. of Correction/	Playground	Poor	Yes, no fee	No	High	RA/B	Limited	N/A
Hockomock Wildlife Management Area Harvest Lane, Brown Ave.	17,18, 29,31, 44, 58-multiple	415.60	MA Division of Fish and Wildlife	Wildlife Protection/ Stormwater Storage/ Passive Recreation/Conservation	Fair	Yes	No	Moderate	RA/B I/A I/E	Perpetuity	N/A
Keith Homestead Lakeside Drive	70-61 57-18, 19,20, 21,22, 23	8.53	MA Division of Fish and Wildlife	Passive Recreation	Fair	Yes, no fee	No	High	RA/B	Perpetuity	CPA
Lake Nippenicket Rte. 104	30,56, 57,69, 71, 82-multiple	252.80	MA Division of Fish and Wildlife	Conservation/ Wildlife habitat/ Boating/Passive Recreation	Fair	Yes, no fee	No	High	RA/B	Perpetuity	N/A

PROPERTY	MAP-LOT	SIZE (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Lake Nippenicket Peninsula	57/75, 76, 77, 83; 70/2	88.00	MA Division of Fish and Wildlife	Conservation/ Passive Recreation	Fair	Yes, no fee	No	High	RA/B	Perpetuity	N/A
Skeeter Mill Pond Water St.	49,50/ multiple	34.37	State Division of Capital Asset Management	Conservation/ Passive Recreation	Fair	Yes	No	Low	R/C	Moderate (temporary)	N/A

Source: Town of Bridgewater Assessors

Non-profit Open Space and Recreation Land

PROPERTY	MAP-LOT	SIZE (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
North Fork Preserve Plymouth St., East St.	39/7	41.20	Wildlands Trust of SE MA (WTSEM)	Conservation	Fair	Yes, no fee	No	High	RA/B	Perpetuity	N/A
Taunton River WCR	80-10,12, 29, 93-4,5,6	125	Wildlands Trust of SE MA (WTSEM)	Conservation	Fair	Yes, no fee	No	High	RA/B	Perpetuity	N/A
Wildlands Trust of SE MA Conservation Restriction South St.	118/4	12.70	Private owner Wildlands Trust of SE MA (WTSEM)	Conservation	Fair	No	No	No	RA/B	Perpetuity	N/A

Source: Town of Bridgewater Assessors

Private Land held in Chapter 61, 61A, 61B

PROPERTY	MAP-LOT	SIZE (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Broad St.	4-10	3.59	ADGA Realty	Forested	N/A	N/A	N/A	N/A	R/D	61	N/A
Main St.	10-73, 74, 170	17.9	Flaherty Realty Trust	Field crops	N/A	N/A	N/A	N/A	R/D I/B	61A	N/A
North St.	46-15,126	37.00	Murray	Field crops	N/A	N/A	N/A	N/A	RA/B I/A	61A	CPA
221 & 239 Walnut St.	51-18, 30, 31	20.0	Garrison	Forested land	N/A	N/A	N/A	N/A	RA/B	61	N/A
Carriage House Dr.	51-51	0.06	Turner	Field crops	N/A	N/A	N/A	N/A	RA/B	61A	N/A
Pleasant St. & Forest St.	60-8, 18	2.1	Hanson Family Realty Trust	Truck crops	N/A	N/A	N/A	N/A	RA/B	61A	N/A
Fox Hill Dr. & Willow Ridge Dr.	61-47, 98,160 62-13	26.2	Wood Realty Trust	Nature study	N/A	N/A	N/A	N/A	RA/B	61B	N/A
Grange Ct.	61-166, 167	2.2	Wood	Hiking	N/A	N/A	N/A	N/A	RA/B	61B	N/A
Nelson Dr.	63-87, 88	1.1	Nelson	Field crops	N/A	N/A	N/A	N/A	R/C	61A	N/A
Laurel St.	64-18	18.00	Turner	Field crops	N/A	N/A	N/A	N/A	RA/B	61A	N/A
Sharon Ct.	65-66, 81	5.5	Turner	Field crops	N/A	N/A	N/A	N/A	RA/B	61A	N/A

PROPERTY	MAP-LOT	SIZE (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Pleasant St.	72-48	21.5	Andruk Realty Trust	Hunting	N/A	N/A	N/A	N/A	RA/B	61B	N/A
Pleasant St.	73-22, 108	14.7	Hanson Family Realty	Non-productive land	N/A	N/A	N/A	N/A	RA/B	61A	N/A
Ledgewood Dr.	73-23	11.3	Wood Realty Trust	Nature study	N/A	N/A	N/A	N/A	RA/B	61B	N/A
South St & Bedford St.	74-10, 39	60.0	South Street Realty Trust	Field crops	N/A	N/A	N/A	N/A	RA/B R/C	61A	N/A
South St & Bedford St.	75-25, 26,28	31.2	South Street Realty Trust	Productive woodlands	N/A	N/A	N/A	N/A	R/C B/B	61A	N/A
Grange Ct.	74-84	1.04	Wood Family Trust	Nature study	N/A	N/A	N/A	N/A	RA/B	61B	N/A
Brookside Dr.	86-2, 60, 61, 72	10.1	Wood Realty Trust	Nature study	N/A	N/A	N/A	N/A	RA/B	61B	N/A
885 Bedford St.	88-10	10.88	Wood Realty Trust	Nature Study	N/A	N/A	N/A	N/A	RA/B	61B	N/A
Bedford St.	88-14	14.60	Pad Corporation	Nature study	N/A	N/A	N/A	N/A	SBD	61B	N/A
Forest St.	99-14	10.00	Forest St. Realty Trust	Non-productive land	N/A	N/A	N/A	N/A	RA/B	61A	N/A
Bedford St.	101-4	20.48	Bedford Realty Trust	Nature study	N/A	N/A	N/A	N/A	SBD	61B	N/A
Conant St.	102-4, 6	11.20	Curtin	Forested land	N/A	N/A	N/A	N/A	SBD	61	N/A
Bedford Park	111-30	21.16	Saw Realty Trust	Hiking	N/A	N/A	N/A	N/A	SBD RA/B	61B	N/A

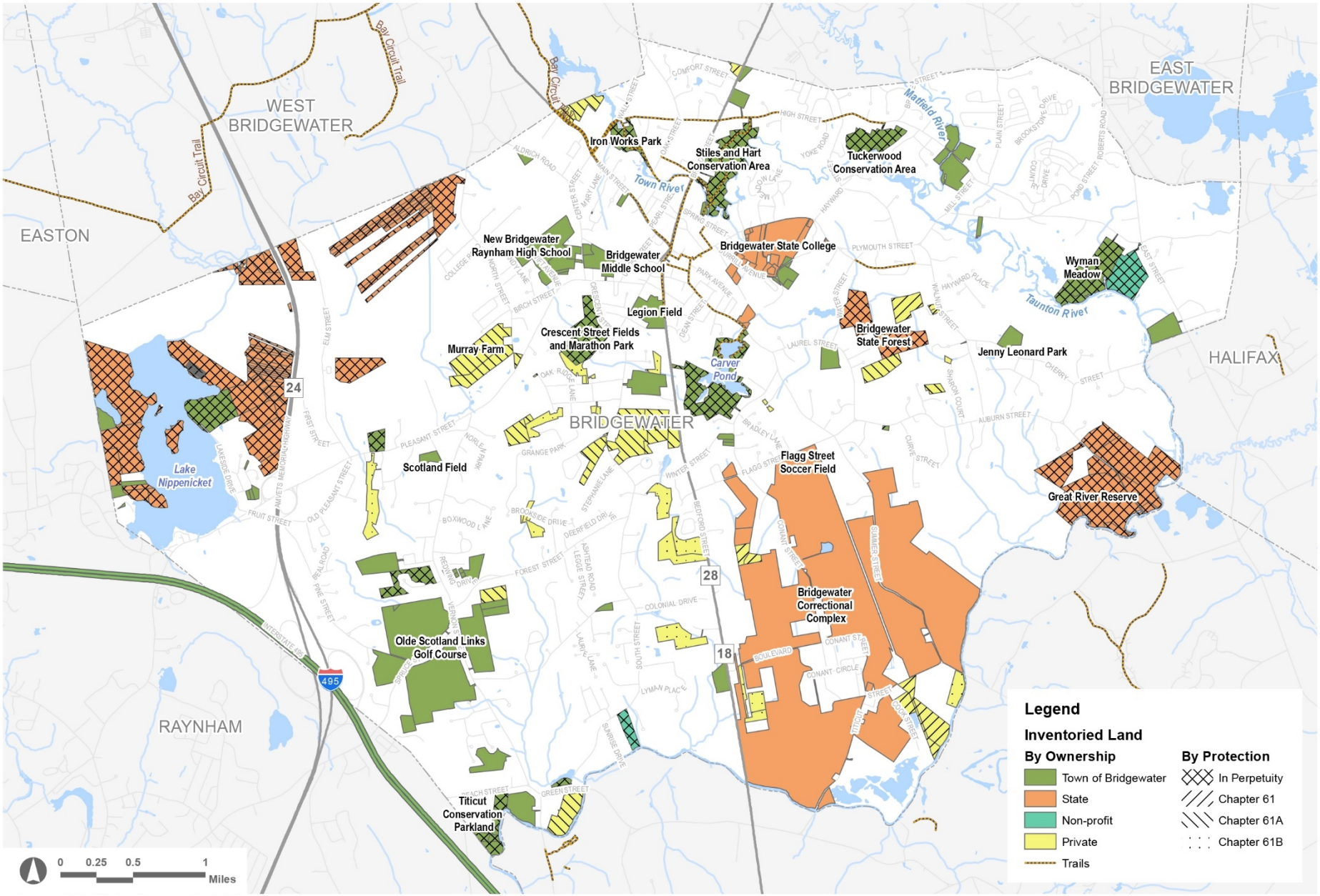
PROPERTY	MAP-LOT	SIZE (acres)	OWNER/ MANAGER	CURRENT USE	CONDITION	PUBLIC ACCESS	ADA ACCESSIBLE	RECREATION POTENTIAL	ZONING	PROTECTION STATUS	GRANTS RECEIVED
Bedford St.	120-6, 7, 28	20.00	RJ Realty Trust	Nature study	N/A	N/A	N/A	N/A	SBD	61B	N/A
Cook St.	122-2	4.90	Stiles & Hart Brick Co.	Forested land	N/A	N/A	N/A	N/A	RA/B	61	N/A
Summer St.	122-10	10.10	Riverside Realty Trust	Nature study	N/A	N/A	N/A	N/A	RA/B	61B	N/A
Titicut St.	128-7	0.21	Stiles & Hart Brick Co.	Forested land	N/A	N/A	N/A	N/A	RA/B	61	N/A
Cook St.	129-2	23.00	Stiles & Hart Brick Co.	Forested land	N/A	N/A	N/A	N/A	RA/B	61	N/A
98-B Green St.	132-5	24.43	98B Green Street Realty Trust	Field crops	N/A	N/A	N/A	N/A	RA/B	61A	N/A

Source: Town of Bridgewater Assessors

Conservation Restrictions

CRs Reference	Received Date	Restriction Acres	Grantor	Grantee	Secretary Signed	CR recording Book Page
11533	4/15/1993	21.7	Trustees of Bismark Realty Trust	Town	5/3/1994	12861
11534	8/26/1999	10	Phyllis Packard	Wildlands Trust of Southeastern Massachusetts	5/23/2000	18551
11535	9/20/2001	45.44	Chaves and Cincotta,Inc.	Town	4/11/2002	
11536	6/20/2005	5	Wolski Family Trust	Town	7/28/2005	3955
11539	4/15/2014	36	Peter Murray	Town	12/9/2014	45070

CRs Referenc	Received Date	Restricti on Acres	Grantor	Grantee	Secretary Signed	CR recording Book Page



Important Open Space and Recreational Resources

This section provides detailed narratives describing the most significant open space and recreational resources located in Bridgewater. For each area, general maintenance issues and needs, as well as additional recreation potentials on the site are identified as applicable. The resources are organized by active recreation areas and passive recreation/conservation areas and are presented in no particular order.

Active Recreation Facilities/Areas

Legion Field

Location:	Off Route 18 at Cottage Street, next to Williams Middle School	**Size:**	23.3 acres
Parcel ID:	48-86	**Zoning:**	R-D
Access:	From Bedford Street, Cottage Street, and Williams Middle School	**Level of Protection**	High as recreation land
Management:	Recreation Commission		
Maintenance:	Recreation Commission Leagues help pay for fertilizer and paint. Due to intensive use, maintenance is considered challenging with limited time or space to close fields for reseeding, regrading, or other required general maintenance.		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs
One baseball diamond (full size - high school)	Yes	No	Field in good condition, backstops in good condition, some rust on fence posts, no safety cap on fences, dugouts and benches in good condition.
Two baseball diamonds (medium - Little League)	Yes	Yes	Fields in very good condition, backstops and benches in very good condition, sports lighting to be upgraded.
Two baseball diamonds (small - Pinto Minor League)	No	No	Fields in good condition, weed eradication needed on baselines/infield (especially east field), backstops and benches in very good condition, one bleacher in very poor.
Two softball stone dust diamonds (0ne women's, one youth)	Yes	Yes	Stone dust infields rough to play on, ground depressions trap water in outfield, weeds in stone dust within the infields and outfields, north field dugout roofs in disrepair, some rust on fences, one wooden bleacher in poor condition.
Two T-ball diamonds	No	No	Stone dust infields are rough for children to play on, very confined location, ground depressions trap water, weeds in surrounding lawn.
One football/soccer field with bleachers	Yes	Yes	Field in very good condition, bleachers in very good condition.
Two basketball courts	N/A	Yes	Bituminous playing surface has minor cracks, paint is faded, fence in poor condition (rust and sags).
Gazebo	N/A	Yes	Not ADA accessible, rails missing pickets, wood slats at base in poor condition, no paved walkway to stairs.
One skateboard park (now closed)	N/A	No	Remnant fence posts should be removed.
Other facilities	Maintenance shack, restrooms alongside Bedford Street are in good condition. Also numerous maintenance out buildings in varied condition and a tot lot on the Cottagee Street side of the park.		

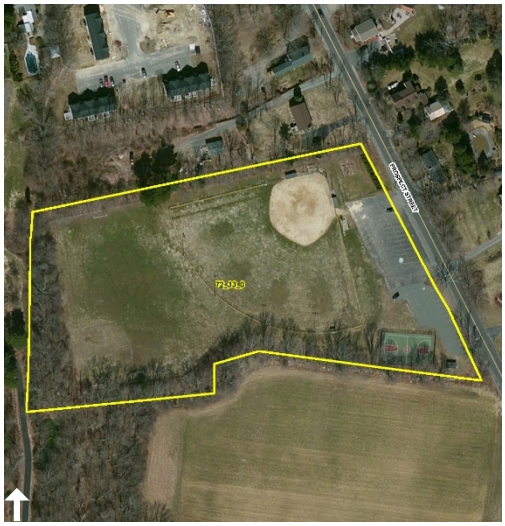
Parking	Two parking lots alongside the eastern edge of site. No street parking. Parking also available at adjacent Williams Middle School. Parking demands exceeded on weekends.

Additional Recreation Potential

The closed skateboard park area can potentially be used for a small practice field, tennis courts or playgrounds.

Provide additional parking.

Scotland Field



Location:	Off Route 104 at Prospect Street	**Size:**	6.7 acres
Parcel ID:	72-33	**Zoning:**	R-A/B
Access:	From Prospect Street	**Level of Protection**	High as recreation land
Management:	Recreation Commission		
Maintenance:	Recreation Commission Town does regular maintenance. Town collects user fees ($50-60/adult) to help with maintenance. Vandalism is a concern.		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs

One softball field	No	Yes	Lighting and fencing to be upgraded in the next 2-5 years, turf generally in good condition but with areas of crab grass, clay infield in good condition, dugouts have holes in block walls, benches poor, bleachers should be replaced (frames rusted/seats have splinters).
One multipurpose field (soccer, lacrosse, archery)	No	No	Turf in good condition, no ADA access from parking (steep grade change from softball field to soccer field).
One basketball court	N/A	No	Almost 15 years old, some cracks in bituminous, fencing sagging, post and rails rusted in some locations.
One playground (with one swing set)	Yes	No	Poor location. Dilapidated. To be removed.
Other facilities	Small maintenance building. Adult leagues bring in portable toilet.		
Parking	Enlarged parking lot on site, pavement in very poor condition, no curbing at entrances, no plantings along frontage.		
	Additional Recreation Potential		
None or limited.			

Crescent Street Fields

Location:	Crescent Street south of Route 104	**Size:**	49.9 acres
Parcel ID:	47-115	**Zoning:**	R-A/B
Access:	Along Crescent Street behind the new police station on Pleasant Street	**Level of Protection**	High as recreation and conservation land
Management:	Recreation Commission; possible Conservation Commission oversight of wetlands open space uses		
Maintenance:	Recreation area by Recreation Commission		

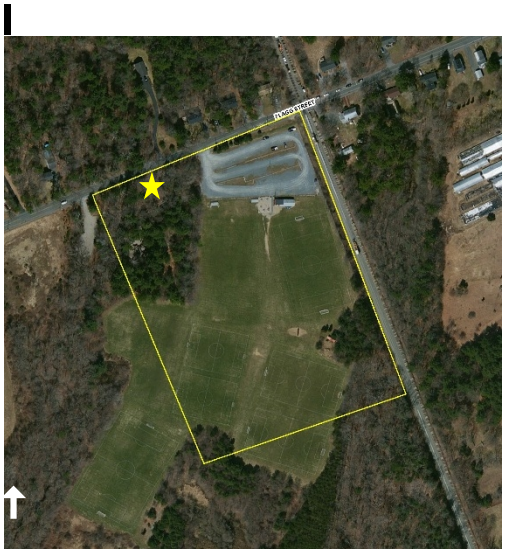
Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs
Three softball fields	Yes	One field is lit	Opened in 2010. Very good condition.
One rookie softball field	Yes	No	Stone dust diamond. Very good condition.
One playground	N/A	No	Good condition.
Other facilities	Walking trails around the fields; Large concession/bathroom building in memory of Jackie Moore; Small maintenance shack		
Parking	Parking lot off Crescent Street; additional parking available inside the gate next to the driveway for major events.		

Additional Recreation Potential

Wooded area on southwest of the parcel can accommodate walking or exercise trails and passive recreation in short or long term.

Rainbow's End Playground



Location:	Flagg Street, just west of and contiguous with Flagg Street soccer fields	**Size:**	Northwestern corner of the Flagg Street Soccer Field
Parcel ID:	90-999B	**Zoning:**	R-A/B
Access:	By path from Flagg Street and through woods from adjacent soccer fields.	**Level of Protection**	Land owned by Department of Correction and leased back to Town. Limited protection.
Management:	Recreation Commission		
Maintenance:	Playground built by the Rainbow's End Trust and given back to Town to maintain.		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs
Major castle-like pressure treated timber play structure	N/A	No	Designed by Robert Leathers and built in 1991 by volunteers. Facility in extensive disrepair. Poor condition aged CCA pressure treated timber structures release arsenic to the soils and prone to

	splinters. Given the poor condition and leaching of arsenic, it is not recommended to repair the platy structures. Poor sightlines from Flagg Street result in the playground currently being too secluded to be considered safe; adjacent wetlands prevent opening up vegetation for improved security. Due to the facility's seclusion, trash has been an issue.
Parking	Parking available off Flagg Street

Additional Recreation Potential

The dilapidated playground is scheduled to be demolished in 2017.

This site is not Town owned, consequently any investment in replacement with a new facility should be carefully evaluated and likely limited.

The site itself is physically suitable for building a new playground that would better meet the recreation demand of the community.

There is also adequate usable space for additional recreation opportunities such as a dog park.

If redeveloped, there is potential for better connection to the adjacent Flagg Street Soccer Field and associated parking.

Marathon Park

Location:	Crescent Street south of Route 104	**Size:**	Northern portion of the Crescent Street Field parcel
Parcel ID:	47-115	**Zoning:**	R-A/B
Access:	Along Crescent Street behind the new police station on Pleasant Street	**Level of Protection**	High as recreation and conservation land
Management:	Recreation Commission; possible Conservation Commission oversight of wetlands open space uses		
Maintenance:	Recreation area by Recreation Commission		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs
Major themed play structures	N/A	No	Opened in May 2014. Excellent condition, play areas designed for different age groups and utilize wood fiber safety surfaces. Trash collection was noted as an issue. Trash collection is currently handled by a private trash company as a donation/service to the community No water fountain and limited ADA parking.
Other facilities	Shade structure, picnic tables		
Parking	Stone dust parking lot off Crescent Street. Shared parking with Crescent Street Field.		

Additional Recreation Potential

Potential walking or exercise trails around the playground to connect to other nearby trails.

Jenny Leonard Park

Location:	North of Cherry Street just east of Walnut Street	**Size:**	10.4 acres
Parcel ID:	52-11	**Zoning:**	R-A/B
Access:	Up a few railroad tie steps or along a partially overgrown curved dirt drive to a low, wooded hill.	**Level of Protection**	High as recreation land
Management:	Town of Bridgewater		
Maintenance:	No clear maintenance authority		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs
Small playground with slide, swings, see-saw, turntable, basketball court, picnic table, roofed bad-weather play space, and a bathroom	N/A	No	All facilities under-maintained. Basketball court overgrown. Bathroom vandalized and dismantled. Extensive restoration or rebuild needed. Improved parking and signage are essential to make the playground more accessible.
Parking	No designated parking. Driveway, upon improvement, could accommodate a few cars. Poor sight lines due to seclusion of facilities poses security issues.		

Additional Recreation Potential

With nearby new residential developments underway, the site can potentially be restored as a full-sized playground serving the east side of the Town. Walking and exercise trails can be developed in the wooded areas.

Town River Landing

Location:	Behind former Highway Barn off of Spring Street	**Size:**	Northern portion of the former Highway Department yard parcel
Parcel ID:	21-167	**Zoning:**	CBD
Access:	By driveway and informal parking areas off of Spring Street. The site is signed both “No Trespassing” and “Bridgewater Town River Landing”	**Level of Protection**	High as conservation land
Management:	Town Council		
Maintenance:	By volunteer Parkland Stewards through Town Manager		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs
Curved, graded, rip-rap lined non-vehicular ramp going down to Town River for launching and removing small hand-carried boats.	N/A	No	Site overgrown, access to river obscured by weeds and woods, existing buildings further obscure views in and conflict with park character.
Parking	Informal parking areas along driveway.		

Additional Recreation Potential

There is adequate space on the site for river side parkland.

Potential for a footbridge over Town River to connect to the Stiles & Hart Conservation Area across the river.

Olde Scotland Links Golf Course

Location:	Off of Vernon, Pine, and Spruce Streets	**Size:**	210 acres
Parcel ID:	108-1, 2, 8 116-7	**Zoning:**	R-A/B
Access:	By driveway to parking lot on Pine Street	**Level of Protection**	High as recreation land
Management:	Golf Commission		
Maintenance:	Golf Commission		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs
Premier golf course	Yes	No	Opened in 1997. Good conditions. No known major maintenance needs at present.
Other facilities	New clubhouse built with volunteer support and opened in May 2012. Good condition. OSL is proud to be a Certified Audubon Cooperative Bird Sanctuary Golf Course, 1 of only 9 in Massachusetts and of only 473 worldwide. Maintenance building on north of Pine Street. Good condition. Golf carts shed next to parking lot. Good condition. Mass Audubon recognizes the Golf Course area as one of the most excellent bird watching areas in the state.		
Parking	Parking lot off of Pine Street behind the club house.		

Additional Recreation Potential

Potential expanded use of the clubhouse function area.

Potential opportunity for cross country skiing and/or public skating in winter.

Flagg Street Soccer Field

Location:	Flagg Street, just west of and contiguous with Flagg Street soccer fields	**Size:**	Approx. 14.6 acres, northern portion of the Department of Corrections parcel
Parcel ID:	90-999B	**Zoning:**	R-A/B
Access:	By driveway and parking lot from Flagg Street and by path from Conant Street	**Level of Protection**	Land owned by Department of Correction and leased back to Town. Limited protection.
Management:	Bridgewater Youth Soccer		
Maintenance:	Bridgewater Youth Soccer		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs
Three full size soccer fields	Yes	No	Turf in very good condition.
Two U-12 soccer fields	Yes	No	Turf in very good condition.
Three U-8 soccer fields	Yes	No	Turf in very good condition.
Practice areas	Yes	No	Turf in good condition.
Other facilities			

Concession/storage/restroom building	Building is dated but appears well maintained.
Parking	Crushed stone parking available off Flagg Street. Logs used as curbing are in poor condition and are weed havens. Parking available off Conant Street for major events

Additional Recreation Potential

None

Bridgewater Middle School

Location:	East of Center Street and north of Pleasant Street	**Size:**	Approx. 21 acres
Parcel ID:	33-47 33-48	**Zoning:**	R-D
Access:	By driveway and parking lot from Center Street and Mt. Prospect Street	**Level of Protection**	Limited protection.
Management:	Bridgewater-Raynham School District		
Maintenance:	Bridgewater-Raynham School District		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs

One football field with large bleachers	Yes	No	Turf in poor condition with crabgrass and bare/depressed areas, home bleachers in good condition but not ADA accessible and fence mesh peeling back in places, visitors bleachers are in hazardous condition, must be replaced.
One softball field with soccer field across outfield	Yes	No	Stone dust infield, turf in good condition, fence in good condition. Soccer play is compromised by infield penetrating its play area.
Eight tennis courts	N/A	No	The 4 northerly courts have been rebuilt and are in excellent condition; the 4 southerly courts need to be replaced.
One football practice area	No	No	Football field also used often for lacrosse
Concession building			Good condition on the exterior (brick).
Parking	Parking available off Center Street and Mt. Prospect Street parking lots		
Additional Recreation Potential			
A large area of reasonably level lawn that was formerly a baseball field by the southerly tennis courts could be converted to multipurpose play.			

New Bridgewater Raynham High School

Location:	415 Center Street, west of Bridgewater Middle School	**Size:**	56.94 acres
Parcel ID:	33-1; 33-5; 33-6; 33-79	**Zoning:**	R-A/B
Access:	By driveway and parking lot from Center Street	**Level of Protection**	Limited protection.
Management:	Bridgewater-Raynham School District		
Maintenance:	Bridgewater-Raynham School District		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs
One football /multipurpose turf field	N/A	Yes	Excellent condition.
One track	Yes	No	Cracking evident, in need of repair.
One soccer /multipurpose field			Excellent condition.
Two baseball fields (high school/college)	Yes	No	Excellent condition
Two softball fields (high school)	Yes	No	Excellent condition, stone dust infields. Concession stand, bathrooms, bleachers
One indoor gym	N/A	N/A	
Parking	Parking available off Center Street		

Additional Recreation Potential

There appears to be room for an additional high school soccer field along the site's northwest edge.

George H. Mitchell Elementary School

Location:	East of South Street across from South Drive	**Size:**	22.2 acres
Parcel ID:	62-19	**Zoning:**	R-C
Access:	By driveway and parking lot from South Street	**Level of Protection**	Limited protection.
Management:	Bridgewater-Raynham School District		
Maintenance:	Bridgewater-Raynham School District		

Facilities and Conditions

Type and Number	Irrigation	Lighting	Conditions and Maintenance Needs
Two playgrounds	N/A	No	The playgrounds are in some disrepair due to neglect following the school roof collapse
One small play structure	N/A	No	Fair condition.

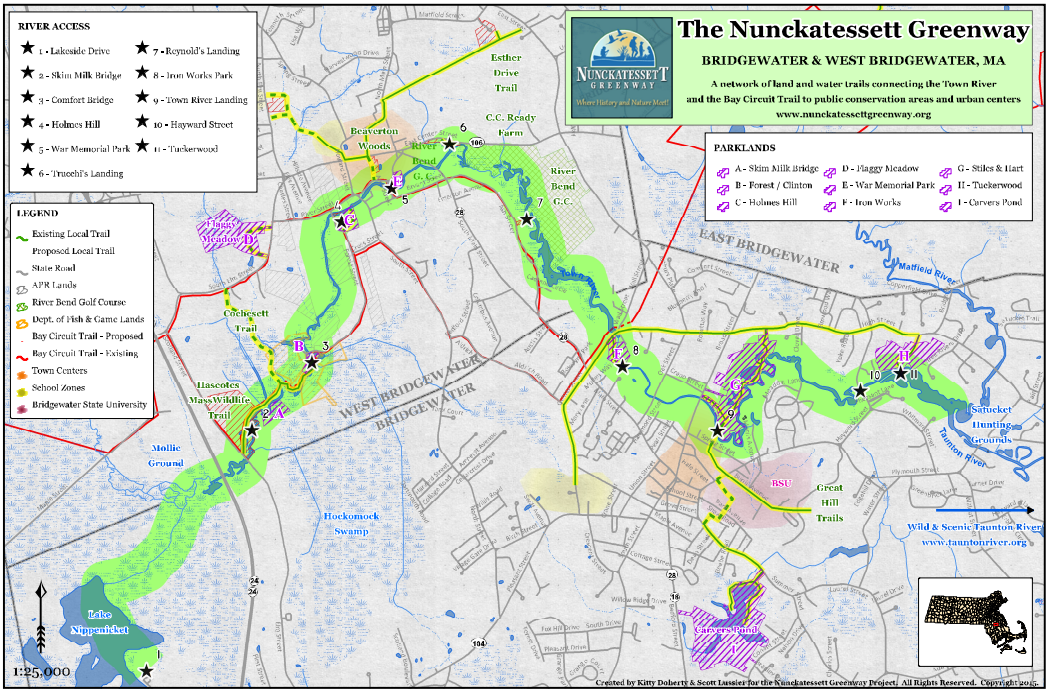
One soccer /multipurpose field	No	No	The soccer/multipurpose field are in need of maintenance.
One baseball fields	No	No	The baseball field is in need of maintenance.
Two basketball hoops	N/A	No	The basketball hoops are in poor condition.
Parking	Parking available off South Street on school grounds.		

Additional Recreation Potential

Roof of the school building collapsed in 2015. Recreation facilities will not be in service for the next 2-3 years due to reconstruction. There is potential to improve recreation facilities on site to better serve neighborhood needs.

Passive Recreation Areas

The Nunckatessett Greenway (map provided by the Nunckatesset Greenway)



Location:	A network of land and water trails along Town River through West Bridgewater and Bridgewater	**Size:**	N/A
Parcel ID:	N/A	**Zoning:**	N/A
Access:	Multiple in Bridgewater, including Iron Works Park, Stiles & Hart and the Tuckerwood Conservation Area	**Level of Protection**	Various
Management:	N/A		
Maintenance:	N/A		

Existing Recreation Resources and Uses

- Currently the Greenway connects the Bay Circuit Trail with the Town River, Iron Works Park, Stiles and Hart Conservation Area, Town River Landing, and Tuckerwood Conservation Area in Bridgewater. There are four existing river access points along the Greenway in Bridgewater.
- The Greenway is meant to be used as a natural corridor for hiking, canoeing, kayaking, fishing, wildlife habitat, outdoor nature and history classrooms, and for promoting alternative means of travel between the two town centers and

Bridgewater State University.

Recommendations for Potential Recreation Improvements

- Link the Iron Works and Stiles and Hart Conservation Areas to the Downtown Business District and to Bridgewater State University
- Complete restoration of Old Stone Building at the Iron Works Park as a trailhead with a small function hall. Other opportunities should be explored to take full advantage of public use opportunities of the building upon restoration.
- Clean-up Town River Landing, and Iron Works Building.

Iron Works Park (Stanley Ironworks)

Location:	On both sides of Town River southeast of High Street near West Bridgewater line	**Size:**	16 acres
Parcel ID:	10-40	**Zoning:**	I-B, R-D, R-D-C

Access:	Signed entrance off High Street and through Highway Department property	**Level of Protection**	High (in perpetuity) if under the Conservation Commission
Management:	Conservation Commission, Highway Department and volunteer Park Stewards		
Maintenance:	Highway Department and volunteer Parkland Stewards		

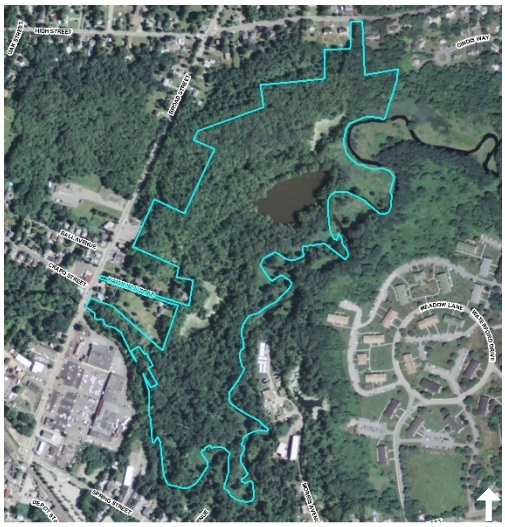
Existing Recreation Resources and Uses

- Site has a deteriorated privately-owned dam, a fish ladder near new Highway Barn, and shell of an historic 19th Century brick and stone industrial structure. New bridge over river is in good condition and provides good access to either side.
- Site is mainly used as a scenic site for exploring riverside and the limited industrial ruins, and as portage point for canoeing and fishing.
- Information kiosk and interpretive sign panels provide information on the history of the site, areas of interest within in it and park rules.

Recommendations for Potential Recreation Improvements

- Improve pavement and signage guiding pedestrians, bicyclists and motorists into the park from High Street.
- Improve paths through the site's attractions and to the canoe launching area to accommodate ADA compliant access.
- Provide a gateway pedestrian entrance adjacent to High Street with improved views to the park.
- Provide park furnishings (benches, picnic, bike rack) within the park proper (currently confined to alongside High Street).
- Expand information panels to show the evolving layout of Iron works improvements introduced during the course of the site's history and the story behind the Old Storage Building, Old Rolling Mill and west channel foundations and walls.
- Provide an improved canoe/kayak launch area.
- Provide pedestrian safety improvements for greater security adjacent to foundation remains and along steep bank areas of the river.
- Marine Fisheries (DF &G) is currently undertaking a study on the High Street Dam in order to improve the safe passage of migratory fish. The possibility of dam removal will have significant impacts on the existing Iron Works parkland design and the local riparian landscape behind the Lincoln Club. While the dam is not under town jurisdiction, future site-specific improvements to the Iron Works Park, such as access, storm water management, historical preservation including the restoration of the stone building, and trail enhancement, should be in synergy with the implementation of the High Street Dam Study.

Stiles and Hart Conservation Area



Location:	At the north-central edge of town on the Town River, east of Route 18, south of High Street, across from the Town River Landing boat launching area.	**Size:**	69 acres
Parcel ID:	12-44	**Zoning:**	R-D
Access:	Signed entrance via gated sewer easement off of Rte. 18 just south of Brick Kiln Lane.	**Level of Protection**	High (in perpetuity) as conservation land
Management:	Conservation Commission		
Maintenance:	Volunteer Parkland Stewards		

Existing Recreation Resources and Uses

- Site is generally wooded with areas of shallow bank that allow boat launching or landing.
- Four large ponds and numerous smaller ponds provide a varied and attractive landscape.
- Site is informally used for hiking, wildlife habitat, canoeing, kayaking, and fishing.

Recommendations for Potential Recreation Improvements

- Gate needs to be repositioned back to allow three cars to angle in off the roadway, as required in the deed agreement with Conservation Services.
- Provide a thoughtful trail network throughout the site that allows for hiking, cross country skiing, snowshoeing and other activities. Use the existing Conservation Parkland System Histories & Action Plan study as reference when developing the

trail network.

- Improve pathways to be wheelchair accessible to the maximum degree practicable.
- Repair and replace footbridges on the interior of the park and add boardwalks in key areas of interest.
- Introduce benches at key vistas along the trails.
- Introduce interpretive and wayfinding signage through-out the park.
- Provide new sidewalks on Oak Street and Crapo Street and improve sidewalks on High Street to better connect the park to the Iron Works Park.
- Local advocates noted that parking for a 3-car parking area mandated in the deed should be improved by moving the sewer easement gate back 20' at the existing Stiles & Hart Parkland egress / access via Broad Street.
- Local advocates noted that the High Street egress / access to Stiles & Hart is intended to be a pedestrian gate only; there is no safe parking along High Street at this spot, and there is no intended canoe access from this entrance down the hill half- a- mile to the Town River. This section of trail is intended to be intermediate in difficulty.
- Local advocates noted that the ADA egress/access to one of the Stiles & Hart ponds could be provided if additional property is purchased and an ADA driveway built in from Broad Street. Additional ADA accessible amenities could be provided along the Town River around the bridge and canoe launch area across from the Town River Landing.
- Local advocates noted that the existing axis trail from the proposed pedestrian bridge site up the hill to High Street is not intended to be an ADA trail; it was built by the AmeriCorps in 2004 and is designed to be an intermediate trail experience according to the approved management plans. The town needs to offer diverse trail experiences throughout the whole parkland network.
- The main access to the 70-acre Stiles & Hart site is recommended by the local advocates to be through a pedestrian bridge across the Town River at the Town River Landing, just upstream from the existing canoe launch, and also through the pedestrian entrance on High Street. They note that should additional property be acquired on Broad Street, that can be used as official ADA access
- Local advocates noted that the Nunckatessett Greenway Plan sites this route as the branded trail spur bringing the Bay Circuit Trail into the downtown business district. They further note that there should be new signage, possibly MassDOT, at the High Street / Broad Street intersection reflecting this Bay Circuit Trail and Nunckatessett Greenway route along existing sidewalks and off-road trails.

Tuckerwood Conservation Area

Location:	On south side of High Street, east of Hayward Street, west of the Bridge Street intersection with High Street.	**Size:**	32 acres
Parcel ID:	14-21	**Zoning:**	R-C
Access:	Signed driveway on High Street with an informal dirt parking area.	**Level of Protection**	High (in perpetuity) as conservation land
Management:	Conservation Commission		
Maintenance:	Volunteer Parkland Stewards		

Existing Recreation Resources and Uses

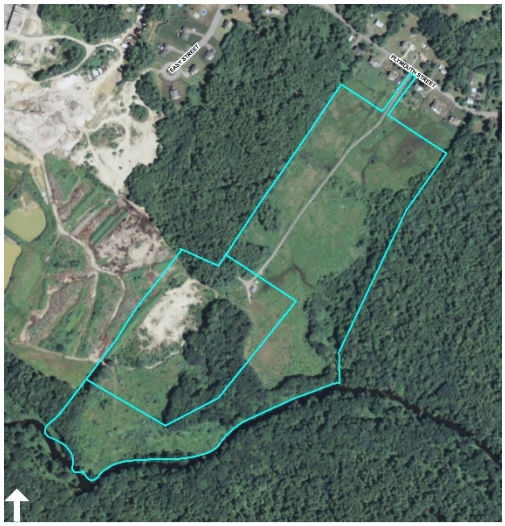
- Site has pine and oak woods with a trail across a power line and a generally easy path down to the Town River. Site offers views across marsh and a potential oxbow.
- Site is used for hiking, wildlife habitat, fishing, canoeing, and kayaking.

Recommendations for Potential Recreation Improvements

- Improve entrance visibility and signage at High Street.
- Provide an information kiosk with a park trail layout map, information on natural features and park rules at the parking area.
- Provide for some seating and picnic opportunities near the parking area with improved trash/recycling receptacles.
- Examine possible hiking access via the cleared power line easement from Hayward Street.

- Due to the remoteness of the river from the entrance, a canoe/kayak launch areas is not practicable, however, opportunity exists for a canoe/kayak landing area where the river bank is close to the same elevation as the water surface.
- Possibly explore the potential for tenting; this would require periodic monitoring by police or volunteers to assure safety and avoidance of clearing for campfires.
- Improve paths from parking area to the river's edge to make them wheelchair accessible to the maximum degree practicable.
- Add discrete signs on the river identifying the edges of the property.

Wyman Meadow



Location:	South of Plymouth Street on the Taunton River	**Size:**	55 acres (35 acres for conservation and 20 acres for water supply protection)
Parcel ID:	39-3, 39-4	**Zoning:**	R-A/B
Access:	By a long, unsigned, paved driveway to a Water Department pumping station with informal gravel parking for 2-3 cars.	**Level of Protection**	High (in perpetuity) as conservation land, moderate as water supply land
Management:	Conservation Commission and Water Department		
Maintenance:	Volunteer Parkland Stewards		

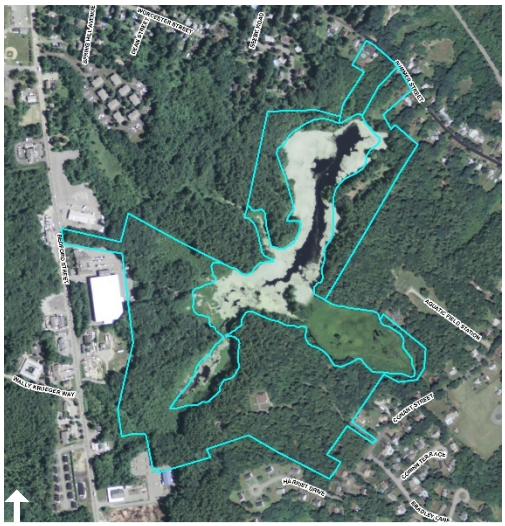
Existing Recreation Resources and Uses

- Site entrance at Plymouth Street leads between existing residences and leads to a ¼ mile (approximate) gravel drive through rolling open meadow and wetlands to a Town water supply pump station. The sides and back portion of the site are characterized by wooded areas and an open sand pit.
- Site has a partially vandalized information kiosk and bench towards the front of the site and no furnishings on the major remaining portion of the site.
- Site is used for water supply protection (a Town well field is located on the site), hiking, cross-country skiing, fishing, canoeing and kayaking. Dramatic long views are afforded across the fields and wetlands.

Recommendations for Potential Recreation Improvements

- Improve park entrance signage.
- Replace the information display with a pull-off and new kiosk providing a trail layout map, information on natural features and park rules.
- Designate and sign an allowable parking area next to pumping station.
- Explore relocation of the access road to the western edge of the property to preserve the central portion as a unified natural habitat area with quality open views.
- Restore natural vegetation on the sand pit portion of the site.
- Provide additional paths in the woodland areas.
- Improve paths from the parking area over the hill and down to the river's edge.
- Improve access to the Taunton River and provide a small canoe/kayak landing area.
- Make paths wheelchair accessible to the maximum degree practicable.
- Add discrete signs on the river identifying the edges of the property.

Carver's Pond



Location:	Near town center surrounded by Bedford Street, Summer Street, and Conant Street	**Size:**	Approx. 34 acres of water body, 66 acres of conservation land, 6.5 acres of water supply protection land
Parcel ID:	Multiple	**Zoning:**	R-C
Access:	Conant Street and small parking area on Summer Street	**Level of Protection**	High (in perpetuity) as conservation land, moderate as water supply land
Management:	Conservation Commission and Water Department		
Maintenance:	Conservation Commission and Water Department		

Existing Recreation Resources and Uses

- Site has a trailhead with parking, an information kiosk with map of the park, historic interpretive signage and rules and regulations.
- The park provides a total of 3,285 feet of trails.
- Site is used for water supply protection, hiking, picnicking, fishing, hunting, winter ice-skating, and as outdoor classrooms by the college and public school classes.
- The site is of historic interest, having seen use by indigenous peoples going back as far as 12,000 years, followed by use as a sawmill, iron foundry, manufacturing of cotton gins, ice production and shoe manufacturing through the years.
- Carvers Pond is currently not used for swimming due to eutrophication.

Recommendations for Potential Recreation Improvements

- Provide additional interpretive signage throughout the park describing its history and natural features.
- Provide wayfinding signage along the park's trails.
- Replace bridges and boardwalks (currently planks without railings) with new facilities featuring ADA compliant surfaces and rail systems.
- Introduce benches, picnic tables and trach/recycling receptacles of uniform design in the lawn area alongside the pond's north edge (i.e., closest to the Summer Street entrance/parking area).
- Provide clearings with seating areas at key potential vistas across the pond.
- Install additional trail sections and boardwalks to provide a complete circuit of Carvers Pond.
- Upgrade trail surfaces and, in some cases, grades to maximize wheelchair accessibility.
- Explore connection from Pond to Winter/Flagg St. as wildlife corridor to connect with Jolly Meadow and allow natural habitat to Bridgewater Correction Complex and eventually the Taunton River.
- Explore possibility of securing trail connections to Route 18/28 and to South St, through Wally Krueger Way.

Titicut Conservation Parkland

Location:	On Taunton River at southern edge of town	**Size:**	27.8 acres (7 acres in Raynham)
Parcel ID:	131-8, 9, 10, 11	**Zoning:**	R-A/B
Access:	Driveway from Beach Street	**Level of Protection**	High (in perpetuity) as conservation land
Management:	Conservation Commission		
Maintenance:	Volunteer Parkland Stewards		

Existing Recreation Resources and Uses

- The Beech Street site entrance has a small parking area and an information kiosk with maps and interpretive information. A separate sign stating park management by the Conservation Commission and Forestry Department is in disrepair.
- The site has a rich history, including taking advantage of its woodlands and tidal section of the Taunton River in the construction and launching of brigs in the early 1800's.
- A broad level path wide enough to accommodate a vehicle extends into the site through woodlands and then narrows as it reaches steep gradients towards the Taunton River.
- Site has an informal campground, canoe/kayak launching slope, and campfire area.
- Site is used for hiking, canoeing, tenting by groups with Conservation Commission permit, e.g., and by Taunton River Watershed Alliance's "Source to the Sea" trips.
- There is a native burial ground on this site which cannot be disturbed.

Recommendations for Potential Recreation Improvements

- Improve signage and information at the site entrance.
- Survey site to ensure that trails are all on public land.
- Work with neighbors to ensure appropriate access/egress from western edge of park land.
- Make paths from parking area to campsites wheelchair accessible.
- Seek a more level canoe/kayak pull-out area or add a rope or hand holds to ease climb from landing area
- Add discrete signs on the River identifying the edges of the property

Lake Nippenicket Town Holdings

Location:	On western edge of town with three parcels on southeastern corner of lake, (only one with lake frontage); two small house lots on the eastern side with frontage, and three 1-2 acre lots without frontage	**Size:**	13.6 acres with lake frontage or adjacent to parcels with lake frontage; 4.1 acre house lot off Bridle Road without frontage
Parcel ID:	82-5,7; 83-60,78,79,80; 70-34	**Zoning:**	R-A/B
Access:	Via Park and Ride lot/Boat Ramp lot off of Route 106	**Level of Protection**	High (in perpetuity)
Management:	Conservation Commission		
Maintenance:	Conservation Commission		

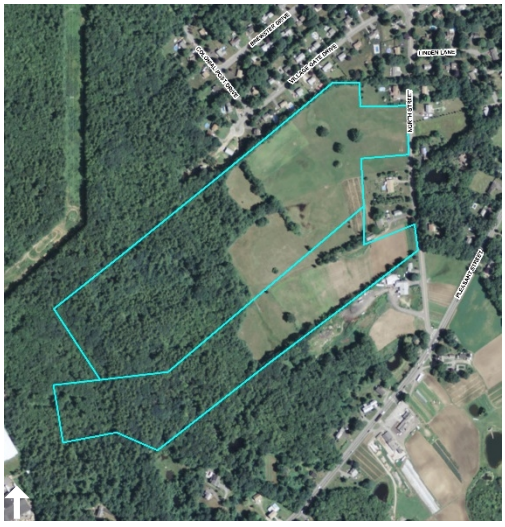
Existing Recreation Resources and Uses

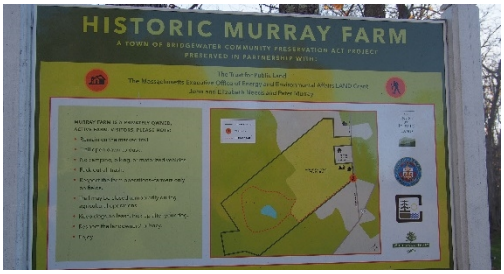
- Site has a Park and Ride lot, state boat ramp, and a sign noting the beach is “permanently closed” due to a drowning
- The historic Keith Homestead is located at the end of Lakeside Drive along the Lake’s east side.
- Site is used for hiking around the lake, canoe/kayaking, boating, jet skiing and bicycling on Lakeshore Drive.

Recommendations for Potential Recreation Improvements

- Provide improved signage and an information kiosk at the Lakeshore Drive entrance with a map showing trails and areas of special interest.
- Work with State Public Access Board to improve state boat ramp, particularly its handicapped accessibility
- Locate a canoe/kayak launch area off of Lakeshore Drive.
- Clarify site availability and explore and support Recreation Commission ideas about developing a boating/sailing program with a boat house, rescue boat and related offsite swimming lessons, consistent with wildlife protection.

Murray Farm





Location:	On North Street off Pleasant Street	**Size:**	63.2 acres (37 acres active agriculture land)
Parcel ID:	46-126, 46-15	**Zoning:**	R-A/B
Access:	Via North Street	**Level of Protection**	High but temporary (Chapter 61A land)

Existing Recreation Resources and Uses

- Level of protection is high and permanent, the Town having acquired a conservation restriction.

Site has an active farm fronting North Street and a hiking trail along the southern property line going into the wooded back of the property and looping around a pond. Access is, however, limited due to liability of the working farm and associated use of agricultural equipment

- An information kiosk with a map and information is located alongside North Street.
- Site is used for active haying and hiking.

Recommendations for Potential Recreation Improvements

- Provide for a parking pull-off on North Street sufficient to accommodate several parallel parking spaces; this will require moving an existing stone wall back some 10 feet into the site.
- Provide ADA compliant pedestrian connection from North Street.

Summer Street Canoe LaunchOld State Farm Trailhead

Location:	On Taunton River where Summer Street	**Size:**	N/A

	meets the town border at Woodward Bridge		
Parcel ID:	N/A	**Zoning:**	R-A/B
Access:	Via Summer Street	**Level of Protection**	UnknownArticle 97 and DOC

Existing Recreation Resources and Uses

- As part of the Summer Street bridge reconstruction, the canoe launch location was adjusted, resulting in a steep gradient down to the river.
- Parking for 3 cars is provided in the unpaved launch area.

Recommendations for Potential Recreation Improvements

- Improve entrance signage and gradients of the canoe launch ramp.
- Explore possibility to enlarge whole site to include land and water trail head to either canoe/kayak, or hike to Auburn Street along the Taunton River.

Description of Process

The vision, goals and objectives for this 2017 Open Space and Recreation Update were derived from thorough reviews of existing open space and recreation studies, including the 2009 Open Space and Recreation Plan, a series of meetings with Town staff, as well as ample opportunities for public input.

A variety of methods, as described in Section 2 Introduction, were undertaken throughout the development of the vision and goals. Two public forums were held on September 26th and November 14th after extensive publicity. All parties contributing to the drafting of this Plan were involved in both public forums, including the Open Space and Recreation Steering Committee, Community & Economic Development Department, Parks and Recreation Department, Conservation Commission, and other Town representatives.

During the first public forum, the 2009 Open Space and Recreation Plan goals were presented to the attendees, followed by open dialogues among the citizens and Town representatives to discuss what has been achieved since the 2009 plan and where the community wants to be in the future. Participants then discussed which of the previous goals were still relevant and important to the community, and made suggestions on amendments and additions to the goals and objectives for the update. Meeting notes from the first public forum were compiled and discussed at a subsequent Steering Committee meeting, during which the Committee collaboratively refined the vision, goals, and objectives based on public input.

The second public forum was held on November 14th where the refined goals and objectives from the previous meetings were presented to the public to ensure additional opportunity for public input. The goals and objectives were further polished and finalized during this meeting and the seven-year action plan was reviewed and discussed.

Concurrent with the public forums, an open space and recreation survey was launched by the Town during September and December. The survey was distributed via the Town's website, the Town's social media pages, email lists and print copies provided at the Town offices. A total of 355 responses were collected during the process, including both online survey responses and print survey responses. The survey responses, along with all other public input collected during the public meetings, helped shape the vision statement and goals for the community. A summary of the survey results is provided in Appendix A.

Statement of Open Space and Recreation Goals

Community Vision

The Town provides top-notch accessible playgrounds, athletic fields, walking trails, hiking trails and bike paths that are popular with the community and foster healthy activity for all ages, including both the active youth/young adult population and the growing senior population. Biking is popular in Bridgewater as a recreation activity and means of

transportation with safe bike lanes and posted routes throughout town. In addition, the Town fosters water-based recreation such as fishing and boating. The Town and State provides multiple well-maintained river access points and appropriate commercial businesses. The Nunckatessett Greenway, which was a collaborative vision between the towns of Bridgewater and West Bridgewater over 20 years ago, now links multiple recreation trails and parklands along the Town River to a continuous trail way network including connection to the regional Bay Circuit Trail. Bridgewater's conservation areas and natural features, including water bodies, forests, and fields, are treasured by residents and protected from harm. Conservation areas have well maintained trails with appropriate signage, access and adequate parking facilities.

Community Goals

Goal 1. To provide and enhance balanced recreational opportunities for active and passive recreation that meet the sports-oriented and nature-oriented needs of the community's age demographics.

Goal 2. To create and preserve a town-wide, regionally linked trails and parks system that connects neighborhoods with various open space and recreation amenities.

Goal 3. To increase public awareness of available open space and recreation opportunities.

Goal 4. To preserve and cultivate public and private agricultural lands.

Goal 5. To protect and preserve environmentally sensitive areas that promote local and regional ecological and environmental integrities.

Summary of Resource Protection Needs

Nationally-Significant Taunton River

The Taunton River is nationally significant as the longest undammed coastal river in New England, has globally rare freshwater and brackish tidal marsh habitats, and is the state-designated Wampanoag Commemorative Canoe Passage (an ancient Native American waterway of over 70 miles). As such, the Taunton River is a high priority natural resource for protection and riverfront properties are high priorities for land conservation.

Unique Habitats and Development Impacts

The Taunton River Basin is unusually flat with only a 20-foot drop over its 40-mile main stem, and is characterized by low permeability glacial till soils and less frequent very coarse and gravel outwash soils, shallow depths to groundwater, and many wetlands. These features provide unique habitats for aquatic and upland wildlife, significantly constrain conventional on-site wastewater disposal, and may exacerbate storm water runoff issues. As sea levels continue to rise in the face of climate change, the Taunton River will be increasingly vulnerable to storm surge flooding. The level and pattern of development of open space causes increased concerns for water quality, water supply, and management of storm water and wastewater.

Wildlife Habitat Protection

The Hockomock Swamp, the largest fresh-water swamp in Massachusetts, is an Area of Critical Environmental Concern (ACEC) and comprises 16,800 acres located in the towns of Bridgewater, Easton, Norton, Raynham, Taunton, and West Bridgewater. In addition to the Hockomock Swamp area, Bridgewater has Core Habitat along southern Broad Street and along the Town and Taunton rivers, including the former Calthrop property off of Cherry Street. Land conservation and protection of habitat should be priorities for these areas, which are also listed as Priority Protection Areas.

Rivers and Vernal Pools

It is critical for habitat of threatened species to protect the Town and Taunton rivers with riparian buffers, ongoing pollution control (e.g., upgrades to the Brockton and Bridgewater wastewater treatment plants) and flow maintenance for a healthy riverine ecosystem and to enhance survival chances of threatened species. The roughly 300 Potential Vernal Pools identified by aerial photography should be further studied to determine eligibility for certification. Certification provides greater protection from negative impacts for these unique habitats. Priority land for rare species protection include land with Estimated and Priority Habitats and those of the BioMap and Living Waters areas, along with those Natural Communities and Certified and Potential Vernal Pools. These areas are priorities for acquisition and protection.

Waterbodies Valued as Community Assets

Bridgewater's lakes and ponds are ecological, recreational, and historic assets, providing important wildlife habitat, recreation opportunities including fishing, boating, and skating, and historic resources with particular significance for Native American, Colonial, and industrial history. The water quality of multiple Bridgewater water bodies is impaired by non-native aquatic plants, including at Lake Nippenicket and Carver Pond, and pollutants, such as fecal coliform found in the Matfield River. These issues should be addressed to improve water quality of these important community assets. In addition, the 2009 OSRP reported that Highway Department studies recommended repairs to the dam at Carver Pond, but work was constrained by incomplete public ownership.

Sewer Treatment Upgrades

Although the town is in compliance with the federal NPDES permit, the town expects more stringent requirements will be issued soon which will likely necessitate capital improvements and upgrades. The town is undertaking a planning study to identify issues.

Aquifer Protection Improvements

The current Aquifer Protection District regulations could be strengthened with the addition of performance standards for nitrogen management. Nitrate-nitrogen is a public drinking water contaminant that poses a health hazard and is linked to "blue baby syndrome" and cancer. Nitrogen, in concert with other indicators, may be an indication of the presence of wastewater and other dangerous compounds.

Scenic Vistas & Agricultural Land

Bridgewater's most compelling landscapes are its open fields and water bodies, which provide scenic vistas that contribute to the community's open space character. The ongoing occurrence of low-density suburban growth in Bridgewater, which is consuming open space and agricultural land, contributes to the significant decline of local agriculture and scenic vistas. The largest properties of farmland that are not permanently protected include 176 acres on Curve Street, 55 and 35 acre parcels on Auburn Street, 31 acres on North Street, and 29 acres on Pleasant Street.

Summary of Community Needs

There are a number of ways to evaluate how well a community is served by recreation resources. The "acres of parkland per 1,000 population" metric is the most common technique for determining whether a community has "enough" parkland. It is also known as a community's "acreage level of service (LOS)".

There is no standard acreage LOS in the United States, and LOS can vary widely due to a community's history, culture, demographics, density, development patterns, and other factors. In more recent years, National Recreation and Park Association (NRPA) has moved away from "one size fits all" guidelines towards a comparative benchmarking approach in which communities can compare themselves to peer communities using the PRORAGIS database.

According to PRORAGIS 2.0, the median range of the acreage LOS for comparable communities with similar population density as Bridgewater is around 9.5 acres per 1,000 population, while the lower quartile is at 5.2 acres and the upper quartile is at 16.8 acres per 1,000 population. Based on the information available from the open space and recreation land inventory, as presented in Section 5, Bridgewater has over 500 acres of publicly accessible recreation and park land in public ownership, including land owned by the town, the state, and non-profit organization. The latest U.S. Census from 2010 shows that Bridgewater has a total population of 26,563, indicating that Bridgewater has an acreage LOS of nearly 19 acres per 1,000 population, which is at the upper quartile of the NRPA's guideline for comparable communities.

A further look into the projected population of Bridgewater shows that the existing recreation resources in town, if well protected and maintained, will adequately meet the long term recreation needs of the community in terms of available lands. Massachusetts Department of Transportation projected that, by 2025, Bridgewater will have a total population of 28,200, and by 2035 the town will have a total population of 29,370. It is also to be noted that among the total population of the Town, there are approximately 2,200 that are incarcerated with their own recreation facilities, and the university population is commuter and season-based. Based on these projections, in the next ten to twenty years Bridgewater's acreage LOS will remain above 17 acres per 1,000 population, still in the upper end of NRPA's guideline. Therefore, from an acreage LOS standpoint Bridgewater has relatively abundant recreation resources for its residents when compared to other similar sized suburban communities.

The Town of Bridgewater takes pride in such recreation opportunities enjoyed by its residents and beyond. According to the Park and Recreation Department, there are roughly more than 4,000 participating members across various sports leagues in Bridgewater, including approximately 1,500 in boys and girls' soccer age 4 and up, 500 in boys and girls' lacrosse, 275 in football, 500 in softball, 500 in boys and girls' basketball, 600 in boys' baseball, and 200 in boys and girls track. The summer recreation programs offered by the town typically receive 50 to 100 participants per week. Outreach to the leagues as part of the Open Space and Recreation Plan Update indicated that the majority of the Town's active youth leagues currently can meet their needs with existing recreation facilities in Bridgewater and experience no major scheduling issues, although there are general maintenance and improvement needs such as lighting, irrigation, and parking, etc. for specific facilities. However, a surge in recent years in the sport of lacrosse has shown emerging demands for additional dedicated facilities.

The town's vast conservation areas are also enjoyed by residents for various passive recreation purposes. The public outreach process of this Plan Update revealed the following key needs:

- Expand walking, hiking, biking, horse riding and/or multipurpose pathways and trails:
  - Along the rivers, around major ponds such as Lake Nippenicket and Carver's Pond, and through large tracts of open space and conservation land, where feasible.
  - Serving segments of the community not involved in organized sports.

  - Forming a town-wide network of paths and trails connecting neighborhoods and common destinations like the downtown, and the college, open space and conservation areas, and various recreation facilities and areas.
  - Connecting to regional long distance trail networks and/or trail systems in other communities. The community has a strong desire for the implementation of the envisioned Nunckatessett Greenway between the towns of West Bridgewater and Bridgewater, with the goal of linking town-owned conservation areas to the nationally recognized Bay Circuit Trail and the Town River. Pursuing this vision through property linkage, public access, and recreational amenities will be key to fully realizing the Nunckatessett Greenway along the Town River.
- Improve access to Rivers and Ponds for Water Sports/Activities:
  - Canoe and kayak access points at protected riverside holdings.
  - Natural swimming areas at Carver's Pond or elsewhere in town.
  - Canoe, kayak or small sailboat rentals at the Town River Landing, Lake Nippenicket, Carver's Pond, and Stiles & Hart Conservation Area, where feasible.
  - Fishing and sailing docks at Lake Nippenicket and Carver's Pond.
- Increase neighborhood Parks
  - Small scale neighborhood parks with picnic areas, potentially on vacant parcels sporadically located in various neighborhoods, to offer shared gathering space.
- Improve Tenting Areas
  - Improve access to and potentially expand improvements of local tenting areas at the Wyman Meadow and the Titicut Conservation Parkland.
- Trash accumulation, vandalism, and lack of maintenance are major concerns regarding the Town's recreation resources.
- Making recreation information more available to the public is a pressing issue as many residents are not aware of the existing recreation resources in Town.

Management Needs, Potential Change of Use

The primary management needs in Bridgewater relate to how the town manages and maintains its existing recreational facilities and open spaces. The town has a very small Parks and Recreation Department that oversees and maintains all town-owned recreational facilities, including various parks, fields, and the golf course, and coordinates recreational activities with the school departments, youth groups, sports leagues, and other groups. Despite the tremendous efforts by the department staff to keep up with facility maintenance and other service requests, the Parks and Recreation Department is severely understaffed and underfinanced to truly meet the recreational needs of the community. The need for additional staff and financial resources is evidenced by poor condition of parking lot pavement, rusting fences, damaged dugouts, children's play areas in disrepair, and other deficiencies found at various facilities.

On the other hand, the Town also needs to increase its capacity to implement open space priorities. The Town anticipates has re-establishing established the Open Space Committee upon adoption of an Administrative Code in 2016. The Open Space Committee would beis responsible for implementation of many of the recommendations of this Open Space and Recreation Plan including overseeing land conservation initiatives such as open space property acquisitions, protection through Conservation Restrictions or Agricultural Preservation Restrictions.

Introduction

The goals and objectives outlined in this Plan Update intend to achieve a balance of recreation and conservation. The following list of goals and objectives reflect a collective vision shared by the community members, the Open Space and Recreation Plan Steering Committee and various town departments.

Goals and Objectives

Vision

The Town provides top-notch accessible playgrounds, athletic fields, walking trails, hiking trails, and bike paths that are popular with the community and foster healthy activity for all ages, including both the active youth/young adult population and the growing senior population. Biking is popular in Bridgewater as a recreation activity and means of transportation with safe bike lanes and posted routes throughout town. In addition, the Town fosters water-based recreation such as fishing and boating. The Town and state provides multiple well-maintained river access points and appropriate commercial businesses. The Nunckatessett Greenway, which was a collaborative vision between the towns of Bridgewater and West Bridgewater over 20 years ago, now links multiple recreation trails and parklands along the Town River to a continuous trail way network including connection to the regional Bay Circuit Trail. Bridgewater's conservation areas and natural features, including water bodies, forests, and fields, are treasured by residents and protected from harm. Conservation areas have well maintained trails with appropriate signage, access and adequate parking facilities.

Goals and Objectives

Goal 1. To provide and enhance balanced recreational opportunities for active and passive recreation that meet the sports-oriented and nature-oriented needs of the community's age demographics.

Objectives:

5. Rehabilitate aging municipal recreation facilities.
6. Create additional recreation opportunities to meet emerging recreation needs.
7. Promote passive recreational use of the Town's conservation areas by enhancing public accessibility, creating and maintaining trails and viewpoints, and increasing waterfront access.

8. Appropriately staff the Town Parks and Recreation Department, and expand the cadre of volunteers to manage, maintain and improve the Town's recreation facilities and conservation lands.

Goal 2. To create and preserve a town-wide, regionally linked trails and parks system that connects neighborhoods with various open space and recreation amenities.

Objectives:

6. Inventory existing trails and open space areas in town to identify missing links between major resources through trail expansion.
7. Seek opportunities to add additional key open space parcels.
8. Establish a greenway system along Bridgewater's portions of the Matfield, Town, and Taunton Rivers as part of a joint effort with other riverside town(s).
9. Design and adopt a town-wide bicycle/pedestrian system that integrates with the regional Bay Circuit Trail network at the Iron Works Park.
10. Create additional parks and open space areas by repurposing vacant municipal properties, collaborating to acquire new key parcels, and integrating open spaces in new developments.

Goal 3. To increase public awareness of available open space and recreation opportunities.

Objectives:

5. Produce and maintain a clear, parcel-based open space and recreation resources map that shows access and parking locations, and primary activities at various public and non-profit holdings.
6. Establish a centralized open space and recreation information hub on the town website and at Town offices.
7. Create a consistent signage and wayfinding system for the town's publicly accessible open space and recreation areas.
8. Design and install interpretative displays at conservation properties in collaboration with private, non-profit, and state government stakeholders.

Goal 4. To preserve and cultivate public and private agricultural lands.

Objectives:

4. Protect historic agricultural land by encouraging sustainable land use practices such as Conservation Restrictions (CR), Agricultural Preservation Restriction (APR), and Transfer of Development Rights (TDR).
5. Utilize state programs to support investment in continuing farm operations.

6. Promote accessibility and usage of community gardens to foster learning opportunities for children and young adults about agriculture and local food.

Goal 5. To protect and preserve environmentally sensitive areas that promote local and regional ecological and environmental integrities.

Objectives:

5. Improve water quality of rivers and other surface water bodies.

6. Identify and protect parcels serving as wild life corridors and critical habitats from adverse development (e.g. Jolly Meadow between Flagg, Mae Ave. and Alexander Dr. from Bridgewater Correction Complex connect to Winter St and Carver's Pond Habitats).

7. Sustain current aquifer protection districts to protect the quality, capacity, and security of the public water supply.

8. Support Low Impact Design (LID) strategies to reduce runoff and maximize ground water recharge.

Introduction

The Seven-Year Action Plan is based on goals and objectives explained in Section 8. It represents collaborative efforts among the stakeholders, including the Steering Committee, several town departments, and the public. The Action Plan offers tangible steps –for to resource preservation, acquisition, enhancement, management and maintenance –the Town can take over the next seven years tow achieve the vision and goals defined herein. It lays out specific actions under each goal and objective and identifies the timeline, responsible parties, and potential funding sources for each.

Accomplishments Since the 2009 Plan

Following is a summary of significant accomplishments under Bridgewater's 2009 Open Space and Recreation Plan.

- Recreation achievements:
  - Administrative code adopted in 2016 created a parks and recreation department and a parks and recreation commission.
  - Completed Recreation Needs Assessment in 2015 - CPA funded.
  - Demolition of dilapidated Rainbow's End playground - 2106.
  - Creation of Marathon Park (private/public Partnership) – 200?.
  - Completion of girls' softball complex at Crescent Street – CPA funded 2012.
  - New sign at Legion Field – Eagle scout project – 201?.
  - Golf Course clubhouse built - 2011.
  - Created Music Alley, an outdoor performance venue in 2016 – CPA (construction) and private grants (program).
- The Town secured with CPA funds Conservation Restrictions on two working farms (61A land) when it preserved the 63.2 acre Murray/Needs Farm (37 acres of active agricultural land) with assistance from the Trust for Public Land. This accomplishment serves three purposes: preserving open space, securing a Conservation Restriction on a working farm, leveraging other additional public funds (Land Grant funds) by working with other organizations.
- Great River Preserve (end of Auburn Street) Preserved 230 acres. Department of Fish and Game (DFG) owns part outright and two parcels have conservation restrictions. In 2009 the Wildlands Trust and the Massachusetts Department of Fish and Game completed the acquisition of 230 acres along the upper Taunton River in Bridgewater. Purchased from the Lehtola family, the Trust's 125-acre portion of the acquisition is now known as the Great River at Conihassett in recognition of and respect for the site's Native American history, which is part of the larger 410 acre Taunton River Wildlife Management Area.

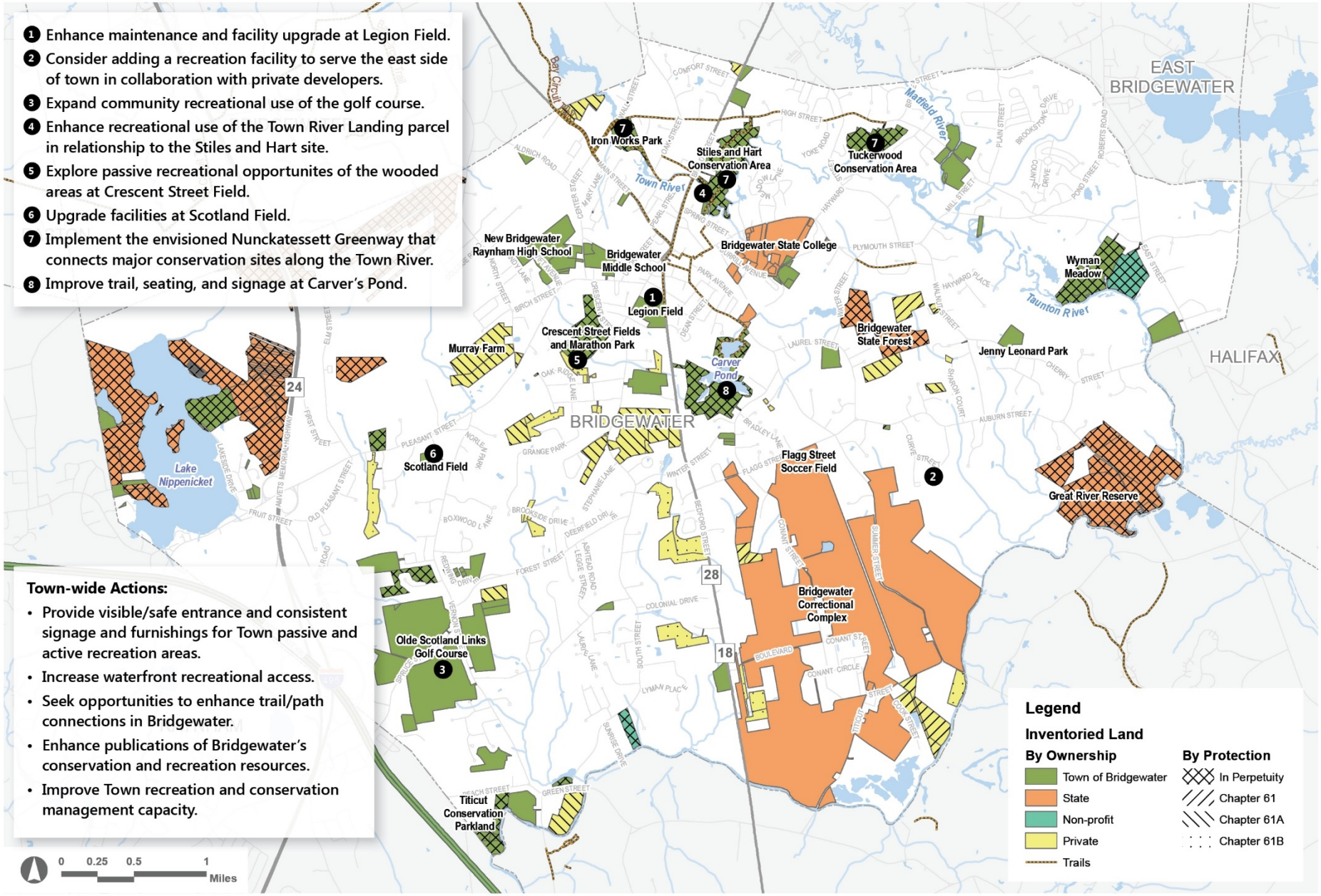
- The Town and the Department of Fish and Game acquired and managed 11.3 acres of land at Lake Nippenicket abutting Keith House and another 88 acres of adjacent property. The Department of Fish and Game owns 100% of the interest including the conservation restriction and the underlying restricted fee.
- Town completed an appraisal of 5 acres of land at the Stiles and Hart (Off Broad St). Negotiation of purchase would be next step – 201?.
- Town instituted zoning changes including the Open Space Conservation Development Ordinance to encourage cluster development and conservation of open space - 2016.
- Town adopted Complete Street policy - 2016.

Seven Year Action Plan

It is critical to recognize that implementing the recommendations of this Seven Year Action Plan will require support from and collaborations among key town departments, commissions, boards, in coordination with the town volunteers and partners. As discussed in Section 7, the Town created an Open Space Committee with responsible to ensure the Town's implementation of the recommendations in this Action Plan. The Town's annual budget, capital improvement projects, and the Town's capacity to hire staff and recruit volunteers It should also take into consideration to move the actions forward. Securing additional sources of funds, increasing staff, recruiting, volunteers, and leveraging support for open space and recreation facility maintenance and enhancement equally important.

The following is a list of acronyms for Action Plan responsible parties and funding sources:

Acronym	**Full Name**
AC	Agricultural Commission
BRRSD	Bridgewater-Raynham Regional School District
ConCom	Conservation Commission
CED	Community and Economic Development Department
CPA	Community Preservation Act
CPC	Community Preservation Committee
DOC	The Department of Correction
DPW	Department of Public Works
GCEF	Golf Course Enterprise Fund
HC	Historical Commission
LAND	Local Acquisitions for Natural Diversity (state)
NGC	Nunckatessett Greenway Committee (regional)
NRTB	Natural Resources Trust of Bridgewater
OCPC	Old Colony Planning Council (regional)
OSC	Open Space Committee
PB	Planning Board
PRC	Parks and Recreation Commission
PRD	Parks and Recreation Department
TC	Town Council
TRFC	Town River Fishery Committee
TM	Town Manager
Town	Town of Bridgewater
ZBA	Zoning Board of Appeals



Source: MassGIS, Town of Bridgewater

Map 7
Action Plan Map

Goals and Actions	Responsible Parties	Short-term 2017-2018	Mid-term 2019-2021	Long-term 2022-2023	Potential Primary Funding
Goal 1. To provide and enhance a balanced of both active and passive recreation recreational opportunities for active and passive recreation that meet the sports-oriented and nature-oriented needs of community's Bridgewater's age demographics.					
Provide esthetically consistent and vandal resistant furnishings at Town active recreation facilities.	PRC, PRD			√	Town
Explore space and funding opportunities for additional peak-period parking at Legion Field.	PRC, PRD		√		Town
Update the basketball courts, T-ball fields, and playground at Legion Field.	PRC, PRD	√			Town
Rebuild and add irrigation to Babe Ruth or Lane Field at Legion Field.	PRC, PRD		√		Town
Identify the opportunities to introduce a small practice field, tennis courts, or playgrounds in the former skate park at Legion Field.	PRC, PRD		√		Town CPA
Improved lighting on Hayes and Lazzaro Major League fields. Repair the basketball court and softball dugouts, replace benches and bleachers and repave the parking lot at Scotland Field.	PRC, PRD	√			Town CPA
Dismantle existing degraded park facilities at Jenny Leonard Park.	DPW		√		Town
Seek funds to design and redevelop a full-sized play area with improved visibility at Jenny Leonard Park to better serve the east side of town.Consider mitigation of Duxburrow Estates 40B project at Curve Street to include playground to serve east side of town.	ZBA, PRC, PRD		√		Town Private developer
Explore a public-private partnership for proper/potential recreation use of development of the Jenny Leonard Park site with developers of the adjoining and nearby residential areas.	PRC, PRD		√	√	Town Private developer
Remove or relocate the small playground at Scotland Field which has safety concerns and is in disrepair.	PRD, DPW,		√		Town CPA
Maintain and improve facilities at Olde Scotland Links Golf Course, such as: • Small clubhouse expansion including coat room and table/chair storage. • Paved parking lot.	PRC, PRD	√			GCEF

Goals and Actions	Responsible Parties	Short-term 2017-2018	Mid-term 2019-2021	Long-term 2022-2023	Potential Primary Funding
• Continuous cart paths. • Composting toilets instead of portable toilets on one or two holes. • Irrigation Improvements.					
Expand community recreation use of the club house at Olde Scotland Links Golf Course. Explore the possibility of using the club house as a large, modern venue as a means to increase revenue to the town.	PRD, PRC	√			N/A GCEF
Explore seasonal or year-round opportunity for cross country skiing, snow shoe, Frisbee golf and/or public skating at large tracks of town parklands, such as the Olde Scotland Links Golf Course, Carvers Pond, etc in winter.	PRD, PRC	√			GCEF
Explore the possibility of creating a multipurpose play field for lacrosse and football with appropriate irrigation and parking.	PRC, PRD, BRRSD	√			Town BRRSD
Provide esthetically consistent furnishings, improved pond side trails and additional interpretive signage at Carver's Pond, Iron Works, and Stiles & Hart Parklands.	OSC, DPW	√			Town CPA
Create ADA accessible trails/parking at Carver's Pond or Iron Works Park.	OSC, DPW	√			Town CPA
Clean-up the Town River Landing parcel and develop parking and passive recreation access.	OSC, DPW	√			Town CPA Volunteers hours
Implement seating, interpretive signage, viewpoints, trail improvement, and a footbridge to the Stiles & Hart Conservation Area across from the Town River Landing parcel.	OSC, HC, PRD, PRC, DPW, NGC		√		Town CPA NGC
Examine and improve visibility of exiting entrances, signage, and parking availability at conservation areas, particularly Iron Works Park, Stiles & Hart, and Tuckerwood Conservation Area.	OSC, PRD, DPW		√		Town CPA
Improve existing canoe/kayak launching areas and explore the possibility of adding new launch points at appropriate intervals on waterfront conservation sites.	OSC, PRD, DPW		√		Town CPA
Ensure small craft access and fisheries improvements to Town River and Lake	ConCom, TFC		√		Town

Goals and Actions	Responsible Parties	Short-term 2017-2018	Mid-term 2019-2021	Long-term 2022-2023	Potential Primary Funding
Nippenicket by appropriate removal/cleaning of the Town River and Taunton River					
Provide esthetically consistent and vandal resistant furnishings at all Town conservation areas.	OSC, DPW			√	Town
Allocate additional financial resources to support overall upkeep of the passive and active recreation facilities.	TC, TM	√			Town
Establish a point person from the PRD/PRC to address passive recreation needs.	TC, TM, CED	√			Town
Build capacity and coordinate volunteer organizations to assist town staff in monitoring and maintaining town conservation lands. Use existing stewards in a more guided way.	OSC, PRD	√			N/A
Goal 2. To create and preserve town-wide, regionally linked trails and parks system that connects neighborhoods with various open space and recreation amenities.					
Develop a master trail system design with publicly accessible way-finding (physical and electronic).	OSC, CED, PRD		√		CPA OCPC
Create Extend walking trails at the crescent Street Field at into the wooded area on the southwest of the field portion of the Crescent Street Field to recreation facility that connect to other nearby trails.	OSC	√			CPA Town GCEF
Create walking trails in the wooded areas at the Jenny Leonard Park site that connect to nearby residential areas.	OSC		√	√	Town Private developer GCEF
Pursue the establishment of the Old State Farm land & water trail head in collaboration with EEOA, DOC, DAR, DF&BA and Wild & Scenic Taunton River Stewardship Council.	OSC, PRD		√		CPA Town GCEF NGOs
Coordinate with private land owners and conservation holders to create trails with access to the Town and Taunton Rivers. For example, explore the possibility of Murphy's Landing (canoe launch and picnic area via private developer, DF&BA, Taunton River Stewardship Council and the town) at the Route 104 confluence with the Town, Matfield and Taunton Rivers in the Pratt Town section of Town.	OSC, PRD		√		Citizen donation CPA GCEF

Goals and Actions	Responsible Parties	Short-term 2017-2018	Mid-term 2019-2021	Long-term 2022-2023	Potential Primary Funding
Based on actions identified in the 2014 Master Plan and the updated Priority Protection Areas by Old Colony Planning Council (OCPC), Ddevelop a land prioritization plan that identifies high priority private open space parcels for future conservation, particularly parcels adjacent to existing recreation and conservation areas, and parcels serving as wildlife corridors.	OSC, CED, ConCom	√			CPA OCPC GCEF
Pursue acquisition, as opportunities rise, of identified high priority parcels.	OSC, CED, ConCom, CPC			√	CPA, Land trusts LAND
Collaborate with West Bridgewater to implement the Nunckatessett Greenway on the Town River and Bay Circuit Trail.	OSC, NGC, NRTB			√	CPA, LAND Volunteers hours
Establish an ad hoc committee to oversee thePursue the design and implementation of the town-wide bicycle/pedestrian system.	OSC, PRD, PRC, CED, TC		√		Town
Coordinate with town departments and offices to inventory existing bike paths, bike lanes, sidewalks, and trails in town.	CED. PRC, OSC,		√		Town
Identify and prioritize gaps among existing bicycle/pedestrian path, hiking, and horse riding trail systems in town and with the regional network. For example: • Consider connecting hiking trail at Mitchell Elementary School from South St. to Bedford St with long range plan to connect to Carver's Pond via crosswalk on Route 18/28. • Consider trail spurs connecting to BSU through the campus to Great Hill (BSU) and Carver's Pond. • Explore collaboration with the Bay Circuit Alliance and their partners AMC to improve the Bay Circuit Trail between Iron Works and East Bridgewater's Route 106, along an old rail bed. Some board walks may be needed between Wall St and the rail bed (plus conservation easement).	OSC, PRC, CED, OSC, PRC, CED, BSU OSC, PRC, CED	√			Town CPA Town, BSU, CPA W. Bridgewater CPA, Bridgewater CPA
Conduct a feasibility study for prioritizing connecting of segments.	OSC, CED, PRD		√		Town CPA

Goals and Actions	Responsible Parties	Short-term 2017-2018	Mid-term 2019-2021	Long-term 2022-2023	Potential Primary Funding
Regularly update the inventory of vacant municipal properties.	OSC, PRD, CED				Town
Based on actions identified in the 2014 Master Plan, Ddevelop a land prioritization plan that identifies high priority vacant municipal properties to be considered for recreation reuse, particularly parcels in underserved neighborhoods and parcels adjacent to existing recreation and conservation areas.	OSC, PRD, CED		√		CPA Town
Continue to enforce the Open Space Residential Development Ordinance to create additional integrated open spaces for land conservation.	Building Inspector, ZBA, PB, CED		√		N/ATown
Goal 3. To increase public awareness of available open space and recreation opportunities.					
Develop and maintain an up-to-date parcel-based inventory of Town recreation facilities, conservation areas, trails and paths.	PRD, CED	√			Town Volunteers
Create digital and print maps that show access and parking locations, and primary activities at inventoried resources.	PRD, CED, OSC	√			Town
Create a recreation and conservation information page on the Town website.	PRD, TM	√			Town
Make recreation and conservation information available at the Parks and Recreation Department, such as large map displays and brochures.	PRD	√			Town
Develop a uniform branding and wayfinding signage plan for the Town's recreation facilities and conservation areas, in coordination with existing local and regional signage systems as appropriate.	OSC, CED, NGC		√		CPA NGC Town
Prepare a schedule to implement a phased signage plan	OSC, CED, PRC, PRD		√		N/ATown
Restore Old Stone Building at Iron Works Park as a trailhead with a small function/education hall.	OSC, HC		√		CPA, Private, NGO
Goal 4. To preserve and cultivate public and private agricultural lands.					
Communicate with and encourage landowners to protect agricultural lands through CR, APR, and TDR.	OSC, AC, ConCom, CED	√			Citizen participation Land Grants?LAND

Goals and Actions	Responsible Parties	Short-term 2017-2018	Mid-term 2019-2021	Long-term 2022-2023	Potential Primary Funding
Identify and pursue state funding to support agricultural activities.	OSC, AC		√		N/ATown
Collaborate with Department of Correction regarding to promoteing community usage of existing community garden.	OSC, AC, DOC		√		N/A
Explore needs and designate locations for additional community gardens.	OSC, ,AC, CED		√		Town CPA
Publicize community garden opportunities.	OSC, AC, CED	√			TownN/A
Goal 5. To protect and preserve environmentally sensitive areas that promote local and regional ecological and environmental integrities.					
Update water quality conditions of rivers and other surface water bodies in Bridgewater.	ConCom, DPW	√			Town CPA
Develop a Water Resource Management Plan.	ConCom, OSC		√		Town CPA
Update the Bridgewater Priority Protection Areas accepted by OCPC in 2013/2014.	OSC, CED	√			CPATown
Identify, certify, and protect vernal pools in Bridgewater.	ConCom, OSC		√		Town
Enforce local wetland and riverfront protection regulations.	ConCom, ZBA, CED	√			N/A
Communicate with and incentivize landowners to protect parcels of significant habitats from development impact.	ConCom, CED, OSC	√			Citizen participation
Continue to enforce the aquifer protection district regulations.	ZBA, PB, CED				N/A
Encourage new subdivisions to provide subdivision specific water sources (e.g., subdivision wells) and waste water treatment systems.	PB, ZBA			√	N/A
Use rain gardens and other LID techniques for paved areas adjoining new athletic facilities and open spaces.	PRD, DPW		√		Town
Incorporation of LID principles in applicable Town regulations.	TC, TM		√		N/A
Identify impoundments/control structures with the potential to be managed for active flood control and develop a management program.	DPW, TRFC			√	Town

Goals and Actions	Responsible Parties	Short-term 2017-2018	Mid-term 2019-2021	Long-term 2022-2023	Potential Primary Funding
Identify lowlands and impoundments with potential for augmented flood storage, preferably combined with protection of habitat and provision of local open space.	DPW, CED			√	Town