

Section 3 - Community Setting

Regional Context

Attractive geographically and ecologically, Kingston is a rapidly developing coastal community situated on nineteen square miles, halfway between Boston and Cape Cod. Because of its characteristically sandy soil and low coastal topography, the town has been noted as a cranberry growing area. Other abutting towns, which share this distinction, include Plymouth, Carver, Plympton, Halifax, Pembroke and Duxbury. Kingston also has a tidal river system that is situated at the northern boundary of the Plymouth-Carver sole-source aquifer, and the regional surface water supply in Silver Lake. Now that the MBTA Kingston station and Rte 44 re-alignment have been completed, Kingston is a major transportation nexus on the South Shore. As examples of this growth, two major transit oriented developments are in review in 2008: Cordage Seaside, on 3A, over the town line at the Plymouth MBTA station, and 1021 Kingston Place, adjacent to Kingston Station, which together will add about 1400 residential units, a hotel, commercial and business space, about 1.71 road miles from each other. Cordage is on the coast, seeking a 300 slip marina, and Kingston Place is just over one mile inland.

Significant recreation facilities have been completed and are in planning stages. Besides expansion of ball fields and health and fitness clubs, a new basketball facility in Kingston and a major baseball stadium hosting the Plymouth River Eels is proposed across the town line.

Water Resources

Kingston shares an embayment of Massachusetts Bay, known as Cape Cod Bay, with Plymouth and Duxbury. Cape Cod Bay is protected as an Ocean Sanctuary by the laws of the Commonwealth, which protection extends to Kingston, Duxbury and Plymouth Bays—the northwestern cove of Cape Cod Bay and an important part of the Gulf of Maine. Jones River is the largest river draining to Cape Cod Bay, contains a significant estuarine habitat, and emanates from the glacial Silver Lake, considered a cold water fishery. Several dams, and low stream flows caused by water withdrawals for municipal, residential and agricultural use negatively impact fish populations. Jones River is entirely within Kingston.

Plympton, Pembroke and Duxbury contain portions of the watersheds for Kingston rivers, including the Jones River Brook, Barrows Brook, Bassett Brook, Halls Brook, Tussock Brook, Mile Brook, Howard and Pine Brooks and the Kingston shores of Silver Lake. The lake is a regional resource whose shores comprise parts of the towns of Pembroke, Plympton, Kingston, and Halifax and serves as a water supply source for the Town of Whitman and the City of Brockton. Because of Kingston's acquisition of Cranberry Watershed Preserve, Brockton no longer has access to Pine Brook as an emergency source of water. Pembroke has a well on Tubbs Meadow Brook, a tributary to Silver Lake; Duxbury has a well on Chandler Pond, the headwater of Pine Brook. Plymouth has a well site near Darby Pond with a "zone of contribution" extending into the southern corner of Kingston. Plympton residents have no municipal supply and thus have private wells in the Silver Lake and Jones River watershed. Most of Kingston

residents drink from the Jones River watershed. Kingston municipal wells include Soules Pond, South Street, Grassy Hole and the proposed 1-86 well, next to Grassy Hole, Winthrop St. (closed), and Trackle Pond, which draws in part from the Taunton River watershed. Most, if not all of these wells are in the Plymouth Carver aquifer. In all, an estimated 150,000 people rely on drinking water and general supply from the Jones River watershed. This impacts the flow of water and health of the river system.

Some of these regional resources are shown on a map entitled "Jones River / Billington Sea Basins -- Natural Resources", Mass GIS/EOEA, 1994, printed at scale of 1:25000 and available at the Conservation Commission Offices. The Jones River Watershed Area is identified in the Maps and Charts section. It has been produced on a USGS topo by the consulting firm GZA which modeled a virgin yield analysis of the Jones River basin under benefit of a grant through the Executive Office of Environmental Affairs Massachusetts Watershed Initiative, under contract with the Department of Environmental Management and in cooperation with the South Coastal Basin team during the time of the Massachusetts Watershed Initiative. See the Jones River Watershed Study at

<http://www.mass.gov/envir/water/publications/southcoastal/jonesRiverWatershedAssessment/> . More information on the Jones River Watershed is available in the South Coastal Watershed Action Plan, published in 2006. This plan was written by the Watershed Action Alliance of Southeastern Massachusetts and in particular, Chapter Five was authored by Jones River Watershed Association, and with other information on the conditions in the watershed is hosted on the www.jonesriver.org website at http://www.jonesriver.org/index.php?option=com_content&task=view&id=78&Itemid=38

Infrastructure

In terms of infrastructure, Kingston is connected to a regional network of highways including Route 3, Route 3A, Route 27, Route 106 and Route 80. Route 44, has been reconstructed and improved as a limited access highway passing through the southern portion of Kingston along the watershed boundary between Jones River and Taunton River basins and provides a link to Rtes 495 and 24 which are about 20 miles west. Portions of the Kingston State Forest, Camp Nekon and land of the Wildlands Trust of Southeastern Massachusetts were taken for this project, and ten vernal pools were filled in, to be replaced south of the highway along Parting Ways Road. The Kingston Conservation Commission succeeded in obtaining a pedestrian and wildlife underpass to connect the open space severed by the construction adjacent to Great Mink Hole, and the 80-acre Bernstein property between Route 80 and Indian Pond Estates was purchased by the Department of Conservation and Recreation to mitigate the taking of state forest conservation lands.

Since the MBTA commuter train and layover yard was completed the town of Kingston residential population has grown by about 30 percent. This growth brought an explosion of residential property development, and in recent years has included many 40B projects under the guise of providing affordable housing. The former sand & gravel and industrial area abutting the train station was rezoned in 2007 to allow for mixed commercial and residential development (the 40R 1021 Kingston Place). Included in this plan is improved egress from the train station by creating a new access ramp to Route 3 as an estimated

90% of the traffic heads south. Also in this area is the completed the construction of Phase I of the sewer project including the waste water treatment facility. Also in 2007, part of this area was designated a wind overlay district, and the Kingston Green Energy Committee has completed a Feasibility Study recommending a 1.5 to 2MW commercial wind turbine on the site adjacent to the sewer plant, transfer station and new highway ramp. [See zoning overlay district at the end of Section 7] Kingston has benefit of a moderate wind resource due to its proximity to the coast—but only close to the coast. The town is seeking to exploit this resource to reduce its carbon footprint and to improve its ability to sustain municipal buildings with needed energy. This effort to utilize wind is likely to cause an examination of potential for additional uses of open space properties that will accommodate wind turbines.

Bay Circuit Trail

The Bay Circuit Trail Program is a plan for connecting open spaces along a transportation corridor which extends from Kingston/Duxbury on the South Shore around the Boston Metropolitan area to Ipswich & Newburyport on the North Shore. One of the seven goals of the Kingston Open Space Plan (Section 6) is to further the objective of the Bay Circuit Program to establish a system of privately and publicly owned open spaces, including parks, forests, reservoirs and wildlife preserves, scenic and historic sites and other properties and reservations surrounding Metropolitan Boston. These open spaces are connected by designated roads, trails, waterways, stopping stations and paths of various kinds, highlighted by appropriate markers, signs and educational notations. (Bay Circuit Program, 1986.)

2006 Status

Total projected trail length	200 miles
Protected lands in corridor	79 parcels
Currently blazed and open to the public	150 miles
Cooperating organizations	more than 50

Some priorities relative to Bay Circuit Implementation in Kingston have been met, including, in particular, acquisitions along the Jones River and Silver Lake Sanctuary. By 2008, from Silver Lake to Wapping Road the Jones River Trail is 3.1 miles in unbroken length (with the exception of the trail along Forge Pond in Silver Lake Commons, where about 900 feet belongs to this elder care institution.) Additional riverine property acquisitions, as well as connecting easements through agricultural land, and the development of a corridor between Sampson Forest and Camp Nekon and Indian Pond, and a branch from Sampson Park to the elementary school remain to be achieved. Each of these is discussed herein. Since all of Kingston's Bay Circuit implementation plans coincide with other conservation and recreation goals, the plans discussed in this chapter are included in the overall action plan.

The 42nd parallel mapping line is the most used geographic latitude for State boundaries in the United States. It serves as boundary between New York and Pennsylvania, Utah and Idaho, Nevada and Oregon, and California and Oregon. By coincidence, this imaginary line passes through Kingston via the Bay Farm, the anchor for the Bay Circuit

Trail. It seems fitting that this geographical line be included in a permanent description of the Bay Circuit Trail, and Bay Farm in particular. A concrete obelisk marks the 42nd parallel adjacent to Landing Road.

History of the Community

The history of Kingston's land use actually began long before the arrival of the Pilgrims. The mouth of the Jones River is thought to have been a "regionally significant" source of marine resources for inhabitants in late prehistoric times (EPA, 1983). At that time, the coast was further out into what is now the bay, as far as Stellwagen Bank, since glacial formation tied up enough water to lower sea level significantly. By 1620, the Native Americans who became a part of our history had lived along the Jones River and on Bay Farm for at least 8000 years. Native American sites were noted as early as 1603 by explorer Martin Pring who navigated the Jones River. Significant Native American sites have been identified at Bay Farm and River Street, at Pawtuxet Park off Basler's Lane, behind the R.S. Means Company on Smith's Lane, at the various springs and streams near Russell Pond, at areas near Smelt Pond, on Monk's Hill, and at areas adjacent to Muddy Pond and at the Commons on Silver Lake as well as other locations. These are shown as sites 11, 17, 19, 20, 21, 23, 24, 25, 26, 27, and 32 on Historic Site Map of Kingston Massachusetts within this Section of the Open Space Plan.

The European settlement in what we now know as Kingston began as land grants within the Plymouth Colony. The area was known as the Jones River Village until incorporation as Kingston in 1726. The commercial activities of the 1700's and 1800's molded the surface of the land in southeastern Massachusetts into what we see today. A walk in the forest can become an adventure in history as one stumbles upon abandoned mill sites, stands of trees in square patterns evidencing old bogs and pastures, and long straight ridges where railroad spurs once transported the products of the land. The lumbering of mature oak and pine woods supported a large shipbuilding industry. Eventually, most of the land was transformed into cleared pastures. The forests we see today are those that eventually overtook the pastures when farming subsided. The availability of water power within the Jones River watershed supported the development and seasonal use of grist mills, textile mills, forges and furnaces, tack nail, and tool making mills. The seventeen original mill groups are shown on large format map (1:2500) (2. c & d), (Drew, 1926) in the 1995 Plan inside the back cover. (See herein, map p.17 for Historic site locations.

Retaining ponds and channels seen today are largely the remnants of mill sites (see map sites 17, 33-36, 44 & 45). Silver Lake and the bogs associated with the Jones River and its tributaries became sources of bog iron for iron foundries. Once excavated, these bogs provided perfect sites for cranberry bog development in the 1800's. Waterways developed for powering the iron industry provided the water necessary for cranberry growing. The mouth of the Jones River at Kingston Bay provided sites for shipbuilding, salt works, and fishing.

The sailing vessel that appears on the Kingston Town Seal represents the sixteen-gun brig "Independence". This was the first ship commissioned by the United States Navy and

was built in Kingston in 1776 at the Jones River Shipyard at Landing Road by William Drew. No known drawings or paintings of this vessel exist, but the seal was created based on the deliberate research of Kingston artist Helen Foster. The marina on Landing Road is said to be the oldest operating marina in the U.S., and is now owned by the non-profit and operated as Jones River Landing Environmental Heritage Center. The anchor on the Town Seal represents the anchor works that were also located at the Jones River at Wapping Road Triphammer Forge and at Silver Lake, at the Forge Pond dam now owned by the City of Brockton. See *Life on the River: the flow of Kingston's industries* published in Summer of 2005 by the Kingston Public Library and the Jones River Historical Society. Also see *Kingston* by Norman Tucker in his Images of America series, published in 2001.



Old Forge building on Forge Pond before Brockton built the dam in 1905

Bog Iron, as it is locally referred to, is an iron ore source defined as limonite. A process of nature provides this source in wetland and pond areas. Reddish-brown in color, it can often be seen mixed with other rocks in stone walls built to define property boundaries for some of the older dwellings in town. It is interesting that Kingston and surrounding towns actually have an abundance of this bog iron. The early forge-related industries relied upon this local raw material for manufacture of iron-based products, including anchors for clipper ships built in Kingston shipyards. Many residents were surprised to learn that something so basic was found in Kingston and was responsible for getting the forge industries under way and providing cannon balls for the Revolutionary War.

The writings on the history of Kingston all attest to the rich native, colonial, and post-colonial heritage of this ocean-side, water-rich community (Bailey and Drew, 1926; Drew, 1884; Massachusetts Historical Commission Reconnaissance Survey Report; Melville, 1976). Scores of historical sites throughout Kingston, discussed in these writings, marked on maps, or in the memory of its people, have yet to be identified by wayside pointers. Melville lists over fifty “placenames” and “highways”, many of which deserve marker identification. Others were mentioned by residents, such as the late Arthur Vantangoli who knew the town “like the back of his hand”.

Here is an excerpt from the *Report of the Proceedings and Exercises at the Celebration of the 150th Anniversary* Kingston, MA, June 27th, 1876

“...Leave this village, with its shaded streets and quiet life, cross the bridge whose double arches span the Jones River, turn sharp to the right, bearing to the left after you have crossed a shallow trout brook, and follow the sandy road through thickets murmurous with insect life, through pine woods with the fragrance of balsam in their breath, skirting the shore of Smelt Pond, stopping a moment, if you please, to notice the easy, graceful sweep of an eagle that, startled from some resting place, lifts himself on mighty pinions, as if he scorned the earth, into the blue of the heavens, and then, almost breaking your way through scrub-oak and birches and alder bushes, climb the narrow path whose sharp ascent brings you to the summit of Monk's Hill. Now look about you! You turn almost instinctively to the ocean, but look landward. Far down into the valley, far away to the horizon, south and west, stretches for miles and miles an untravelled wilderness. It needs no extravagant fancy to imagine that thus it looked a hundred and fifty years ago. You see no indication of human life. There are shaded woods where the Indian today might live, and coverts where the timid deer may hide. With any thought of the past in our mind, we cannot fail to be impressed with its lonely and untamed solitude.”

Historic Site Locations

Several historic sites (shown on the Historic Map in the Appendix B) are as follows:

1. Site of the first meeting house, presently the Unitarian Universalist Church. West of the meetinghouse was the Town Pound. Town pounds were used to enclose stray farm animals and were generally formed by a tall, square stone wall. This area which will include the Town House, Universalist Church, Faunce School, Town Green and many other properties are in the application process for the National Register of Historic Places as a Civic district.
2. Bradford House, built in 1674. The site is owned by the Jones River Village Historical Society.
3. Sites of the 1638 John Howland home and 1676 Joseph Howland home. These sites are owned by the John Howland Pilgrim Society.

4. Fishing Rocks, a town-owned strip of land on the northeast shore of Rocky Nook, provided access to finfish in earlier times when the channel was further in. Fish drying racks, called "flakes" were located here.
5. Ah-De-Nah, near the mouth of the Jones River. This area was part of the Town of Duxbury until 1855 and is now an extensive residential district and includes the Town Landing. Other districts include: "Egypt", in the Grove Street area, later renamed "Frenchtown"; the Ring Road area #16, where Mother Crewes, a witch, is said to have cast a spell on Sailor Ring resulting in his death by fire; "Seaside", near the Main Street Plymouth line, where Italian immigrants settled to be near their work at the Plymouth Cordage Company; "Stoney Brook", a settlement along Summer Street between the railroad tracks and Winthrop Street; and "Dublin", an Irish area at the intersection of Elm and Brook Streets.
6. Abram's Hill, named after 1623 settler Abraham Pierce; between Landing Road, Summer Street, Linden and Maple Streets.
7. C. Drew & Company, in continuous operation from 1847 until recently, situated on Stoney Brook, utilized a water wheel to run triphammers for the manufacture of ship building tools for the U.S. Navy. On adjacent land, the Old Brickyard, next to a natural clay deposit, could become a working museum display.
8. Allerton Homestead (1627) at the end of Spring Street, now a private residence. Also the site of Elder Spring, an early Native American occupation site researched by Plimoth Plantation archaeologist James Deetz in 1972.
9. Fuller Homestead site on the east side of Main Street across from Cobb & Drew Company.
10. Rocky Nook Wharf (1802 - 03), one of the oldest surviving stone wharfs in the Eastern United States, original site of fishing fleet. Nearby is the old Rocky Nook Granite Quarry where bedrock was mined for local use and for riprap at the end of Plymouth Beach. This is now a private residence on Blair Drive.
11. Pawtuxet Park.
12. Spirit Pasture, site of the Grey Homestead is located on the east side of Main Street behind Corcoran's Plumbing Company and off Orchard Lane. The cellar hole was partly destroyed when the railroad track to Plymouth was built.
13. Boundry Lane iron mill site is still easily detected, where iron stoves were made.
14. Witch Hill, off Crescent Street, present site of Harborview condominiums.
15. Mayflower Worsted, cloth manufacturer, now a multi-industrial complex, was built on the Jones River at Wapping Road on the site of the earlier triphammer forge. Originally a Native American fish weir was located at the site. Upstream is

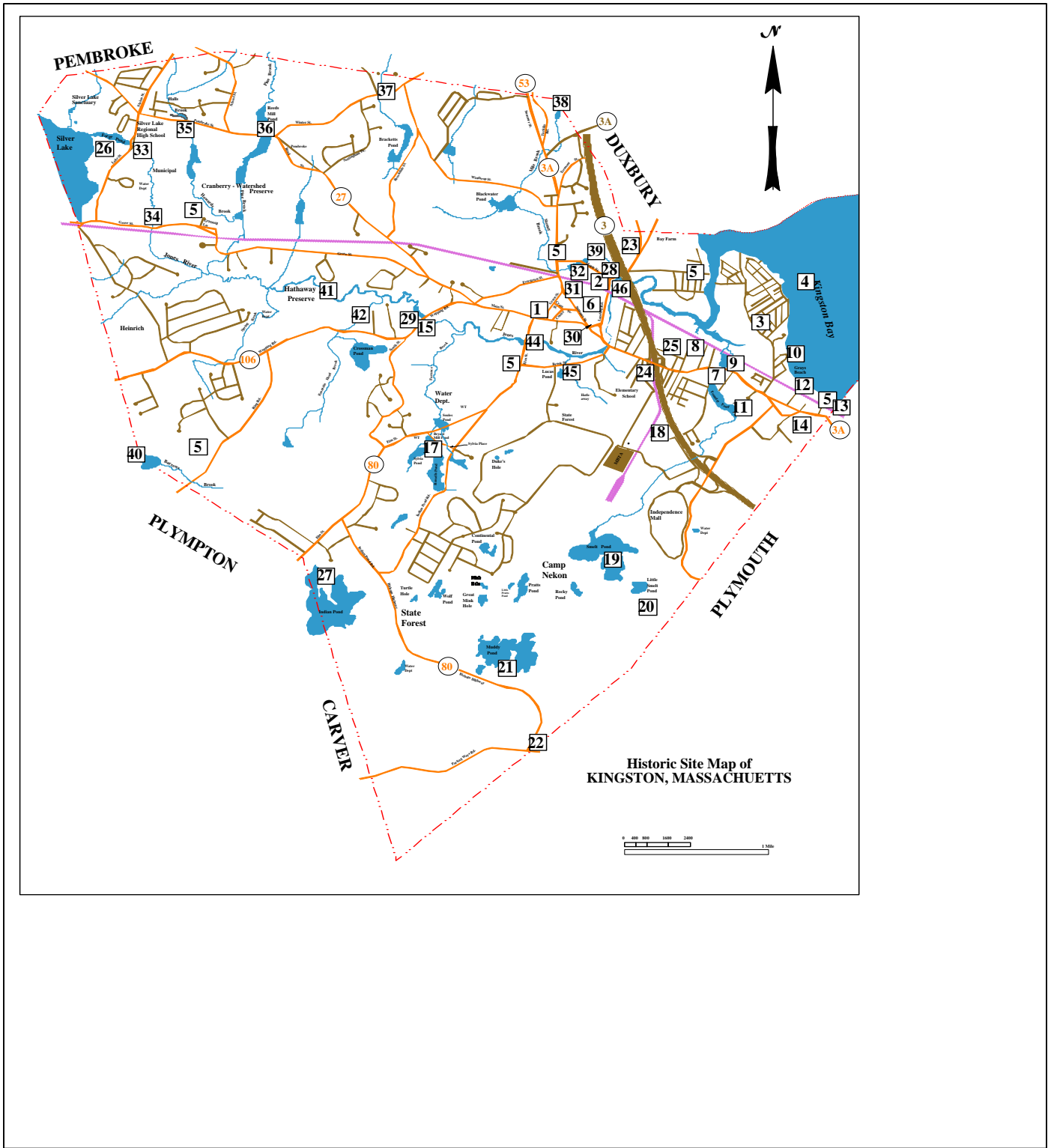
- an old clay and pottery works once operated by Stephen Bradford a descendant of Major John Bradford.
16. Ring Road area, see under #5.
 17. Brook crossing Sylvia Place Road.
 18. Historic Pulpit Rock, in Centennial Fields where early militiamen held muster, located on town-owned land on the west side of Route 3 adjacent to the landfill and the new Old Colony Rail Road Right-of-Way. Said to be the site of worship services, the Rock has early dates chiseled on its surface. Plans for use of the land should include protection of this historic site.
 19. Smelt Pond.
 20. Monk's Hill.
 21. Muddy Pond.
 22. Quam Homestead, said to have been built by an African American of that name in the early 18th century, located near the Plymouth line on Parting Ways Road.
 23. Bay Farm, the oldest Native American site in the region.
 24. Native American site off Cushman Drive.
 25. Native American site off Bradford Ave.
 26. Evans homestead (formerly), now (2008) Silver Lake Commons
 27. Indian Pond Area.
 28. William Bradford House site - Across Maple Street from the Major William Bradford House. This site is owned by the Jones River Historical Society. Governor Bradford, the most important figure of the Old Colony, and one of the most important in the entire history of Southeastern New England, built a house on Stoney Brook where he resided in later years.
 29. Captain Thomas Willett House - 21 Wapping Rd. A member of the original Leyden congregation, Captain Willett was a distinguished figure in the early days of Plimoth Plantation, served as Assistant Governor and succeeded Miles Standish as Captain of the Train Band. He was founder of several New England-towns and served as the first English Mayor of New York. Governor Bradford later purchased the house from Willett and spent the last two years of his life there. It remained in the Bradford family for three more generations. The original part of the house built in 1640, is the oldest house in Kingston and one of the oldest in the United States.

30. Squire William Sever House - Linden St. - Squire Sever, as Kingston's representative to the General Court at the time of the Revolutionary War, was a leading patriot. He recruited and equipped Kingston men to serve in the Continental Army and oversaw the building of the Brig Independence. Built in 1723, the house is a widely regarded masterpiece of early eighteenth century architecture.
31. Frederic C. Adams Library - Summer St. - Funds made available by the will of Frederic C. Adams allowed for the construction of the building designed by Joseph Everett Chandler (1864-1945) of Plymouth in 1898 on land donated by the widow and son of George T. Adams (Frederic's brother). This building has been placed on the National Register of Historic places by the Department of the Interior. In 2007 and 2008 Kingston designated the use of CPA funds toward its restoration.
32. Stoney Brook – Summer Street - Native American site.
33. Forge Pond mill site (picture in previous pages) – Lake Street - This privilege was a sawmill before 1731, then a forge in 1735, grist mill, anchor works, nail works and tack factory through 1860. This privilege was acquired by the City of Brockton in 1904.¹⁹
34. Mill site on Jones River – Grove Street - In the old “Egypt” section of Kingston, this mill site was a grist mill started by Jonathan Holmes and others in 1767 then by Alexander Holmes in 1844 and abandoned before 1861.¹⁹
35. Mill site on Howard's Brook – Pembroke Street - John Hall's Mill – first rights were to Judah Hall and others in 1750, then a sawmill in 1759, sometimes called “Fish's Sawmill” was abandoned around 1910.¹⁹
36. Mill site on Pine Brook – Pembroke Street - Two privileges – William Cooke's Sawmill, 1713 – 1730 at the upper dam and Reed's Mill privilege at the lower dam which held a forge, a slitting mill, a grist mill and Edwin Reed's Tack Factory, match factory, shingle and planing mill, and cotton batting factory.¹⁹
37. The Old Forge on Hall's Brook
38. Mill site on Mile Brook – off Tarkiln Road - Early shovel works that later became a sawmill in 1812 by Seth Washburn and Lewis Russell. Later owned by the Chandler family and abandoned about 1900.¹⁹
39. William Stetson's Tide Mill on Jones River 1844 – 1861.¹⁹
40. Mill site on Sawmill Brook (Barrows Brook) - Ring Road near Plympton line - Dam mentioned in 1717. Cushing's sawmill from 1792-1805 and Thomas Bradford's sawmill in 1826.¹⁹

41. Stephen Bradford's Privilege – on Hathaway Preserve off Wapping Road – Was a clay mill for brick yard and pottery before 1804, a triphammer shop and the first cotton factory project by 1812 then a saw mill, grist mill, shingle mill and nail works until 1820. Newcomb's sawmill was abandoned about 1900.¹⁹
42. Fountain Head Brook – Wapping Road - A wool carding mill, before 1821 and a wheelwright's shop in 1831.¹⁹
43. Triphammer Privilege - see under 15.
44. The Pumping Station on Elm St. - Kingston Water Department – This was a sawmill before 1700, a gristmill of Major John Bradford and others in 1704 and abandoned about 1870. Pumping station for the Old Aqueduct Co from 1849 – 1886 and the Town of Kingston from 1886 to present.¹⁹
45. Mill site on Second Brook – Brook Street – Dam mentioned in 1721 creating Lucas' Pond. It was a carding mill in 1826 and a multitude of tack factories from 1832 – 1886, and an Ice Plant and Laundry in 1925.¹⁹
46. Site of the Joseph Holmes shipyard and the “oldest continuously operating boatyard in the county”, now owned and operated by Jones River Landing Environmental Heritage Center. Site of George Shiverick Boatshop built in 1895.

Other significant areas include the shipbuilding sites, such as the Drew and Holmes¹ yards, on the banks of the Jones River near the Bradford House on Landing Road, where native timber and bog iron were utilized in the industry between 1713 and 1837. Many old schoolhouses still exist including the one room schools, one on Stoney Brook Hill, Summer Street, now a residence, and one on Wapping Road near Anderson's junkyard, unused. Also standing are the Faunce School on Green Street, renovated for town meetings by the 250th Anniversary Committee in 1976, and the old Town House, which was sold in 2007 encumbered with a historic preservation restriction; the Howland's Lane school, which is now a private clubhouse; the Cobb School, which is now a place of business; and the Maple Avenue School, which was used as town offices, and now is being considered for demolition. In addition, old inns, taverns, stores, stables, and sites of wells and springs deserve further research.

¹ The Holmes Boatyard was purchased by Jones River Landing Environmental Heritage Center in June 2008 under benefit of an EOEEA Conservation Partnership grant. A conservation restriction is being granted to the town to preserve the natural and historic interests in the property. The buildings and land will be managed for public access and programs in conjunction with and by Jones River Landing.



Population Characteristics

The town of Kingston had a population of 12,054 persons according to the town census in 2008, an increase of 274 persons over 2000 national census². Based in 2000 census data, this includes 113 African Americans (63.8% increase), 14 Native Americans (16.7 % increase), 51 Asian Americans (240% increase), 88 Latinos (125.6 % increase), and 1,631 families with children under 18, a 36.9 % increase, according to the U.S. Census.

According the 2000 census Kingston contained 4,526 housing units, 4,248 (93.9%) occupied with 3473 (81.8%) owner occupied. Over the past decade housing units grew by 29.4% (1029 new units) from 1990 when 92.2% of the 3496 total housing units were occupied. Households also increased adding 1003 from 1990. The 30.91% grow rate was amongst the highest on the South Shore. Household size decreased slightly from 2.79 persons to 2.77 persons per household. Owner occupancy increased from 1990 by three percentage points up 81.8% from 78.8%.

Population Change 1990 –2000 (Source: US Census 1990 & 2000)

	1990	2000	Change	% Change
Total Population	9,045	11,780	+2,735	30.24%
Total Households	3,245	4,248	+1,003	30.91%
Total Housing Units	3,496	4,525	+1,029	29.43%
Person/household	2.79	2.77		
Median Price	\$148,200	\$227,900	\$79,700	53.78%
Median sales	76	147		93.42%

Although the median age for the Town has increase from 34.26 to 37.2 years Large segments of Kingston’s population is more youthful than the Commonwealth’s as a whole. Much like Massachusetts the largest population group in Kingston is the 18.8% of population who make up the 35 to 44 year old category. Nearly 30% of Kingston’s 2000 population was under age 19 (29.3%) compared to the 26.4% at the state level. The table below shows the age distribution for Kingston compared to the State. Percentages larger than the state’s exist in age groups under 5, 5 to 9 years, and 10 to 14 years.

Population by Age (Source: US Census 2000)

Age	Population	% Kingston	% Massachusetts
Under 5 years	986	8.4	6.3
5 to 9 years	937	8	6.8
10 to 14 years	888	7.5	6.8
15 to 19 years	639	5.4	6.5
20 to 24 years	391	3.3	6.4
25 to 34 years	1,508	12.8	14.6
35 to 44 years	2,210	18.8	16.7
45 to 54 years	1,684	14.3	13.8
55 to 59 years	582	4.9	4.9
60 to 64 years	354	3	3.7

² Town Clerk cautions that the town census is less accurate then the national census, and that the town may have more people then the Clerk count represents.

65 to 74 years	729	6.2	6.7
75 to 84 years	611	5.2	5
85 years and over	261	2.2	1.8

The 1989 per capita income for Kingston residents was \$16,647. Only 5% of residents were determined to be below the poverty level. While income figure are not yet available for the 2000 census median housing prices rose 53.78% from \$148,200 in 1990 to \$227,900 in 2000. Median sales rose 93.42% to 147 from 76 in 1990. Demonstrating a fundamental change in Kingston from a rural Town to a desirable exurban location that is becoming less and less affordable to the long time residents.

The total number of residents employed in the labor force in 1990 was 4654. Of these, 91 % commuted by car to work, 3% used public transportation, and 6% walked or worked at home. It has been reported that there are at least 7,539 automobiles registered to Kingston residents.

Previous population projection has been very near the mark. The 1998 Master Plan projected a population of 11,477 in 2000 and 11,777 in 2001 compared to the 2000 US Census figure of 11,780. The population of Kingston is expected to increase by 22% between the years of 2000 and 2010. (1998, Kingston Master Plan) These growth rates can be explained by the increased growth pressures that Kingston has been experiencing over the past few years. Much of the recent and projected growth can be attributed to the Old Colony Railroad Line, which began operating in 1997, and which directly connects Kingston to Boston.

Growth and Development Patterns

Patterns and Trends

Kingston's primary land use is residential, with some farm, commercial/business and industrial use. There still remain extensive areas of cranberry bogs and other agriculture scattered around town. The downturn in the Cranberry Industry is and will continue to have a significant impact on the growers and the landscape of Kingston as cranberry farmers explore additional means of deriving income from their land. Some recent efforts include: increase tree and gravel removal; sale of uplands for house lots; development of wells in order to sell water to the bottled water industry. Commercial/business development is primarily in three areas. One, the older section, stretches from Kingston Center, where the post office and several businesses serving primarily local customers are clustered, and north on Route 3A to the newer shopping plazas at the junction of Routes 3A and 53. The second area is in the eastern section of town with the classic strip development, including an auto service mall, from the junction of Routes 3 and 3A at exit 9 east to the North Plymouth line. The third area is west of Route 3 at the intersection of Route 3 and Smith Lane. This area contains one large regional shopping mall, auto dealerships and a few other varied businesses. A large construction supply and household appliance store is proposed for the same general area. Industrial development is primarily located to the northwest of this third commercial area. This industrial area which was started in the early 1980s, has been nothing more than a sand and gravel operation and construction waste site since its inception. Little industrial development has taken place. Part of this area is the MBTA Regional Old

Colony Rail commuter station and rail yard. This area was re-zoned from Industrial to Mixed –Use to accommodate the 1021 Kingston Place Transit Oriented Development, and a wind over-lay district. Kingston Place will host 730 units of single family, apartment, town house and condominium units as well as commercial and business space.

Town facilities such as the Library, Reed Community Building, the Police Station and several local churches are located to the south of Kingston Center. A new Town House was constructed on Evergreen Street, and the historic Town House on Green St has been sold. Although the community facilities remain localized, recent growth and development of the commercial district away from the community services have created traffic and accessibility problems. Two fire stations, one manned on Rte 27, and one mostly unmanned on Smith’s Lane, are located strategically near commercial areas. A new school has been built behind the elementary school, to accommodate the increased population growth. This is now called the Kingston Intermediate School. Plans to dissolve the Silver Lake Regional High School District resulted in the break up of the region with Pembroke pulling out to build its own school. Kingston built a new Middle School adjacent to the high school and completely renovated the high school building with the Plympton and Halifax, the remaining members of the region. A new ballfield complex was constructed, partially on land purchased from the Kingston municipal portion of Cranberry Watershed Preserve. A new highway barn has been built behind the old one to assist in the relocation of the town house. Further growth will ultimately create a need for larger municipal facilities and schools that may require relocation away from the center of the town, due to the lack of available space.

The Evanswood elderly complex and nursing facility was sold in 2001, and the new Silver Lake Commons facility has been permitted to expand by adding 230 units of residential housing in various formats and enlarging its footprint by Silver Lake, forge Pond and Jones River.

The new Opachinski field complex was completed for youth baseball and soccer to the West of Bay Farm Road and Pottle Street. A senior center is still being considered for development near the Evergreen St. Town Hall and Highway barn complex.

The rapid increase of new residential and commercial properties during the past five years has led to intense competition for the use of desirable open space. The table below shows building permits issued since 2000.

Building Permit Activity 1990 to Present

Year	Single Family Dwellings	Mobile Homes	Commercial Permits	Commercial Square Feet
2000		37	0	
2001		40	0	
2002		54	0	
2003		76	0	
2004		77	0	
2005		60	0	
2006		24	0	
2007		15	0	

Source: Kingston Building Department

Between 1995 and September of 2001, 209 permits have been issued for new commercial development. In all, there have been well over 700 house lots in subdivisions, nearly 1.5 million square feet of commercial space (not including the paved parking areas), and more than one hundred acres either in the process of or committed to "strip mining" under the guise of industrial development since 1987.

The significance of this is that by requiring one acre for most new single family homes, more than 300 acres of open space have been consumed since 1990. R-80 zoning was approved at the 1995 Annual Town Meeting. Areas to be designated were voted on in 1996. This will decrease the need for services, but will also decrease the amount of public open space. A Conservation/Cluster Residential Development by-law was voted on at the 1996 Annual Town Meeting. With R-80 use of Conservation/ Cluster development, a tremendous amount of open space may be reserved along and potentially less future demand on services. At the May 2000 Annual Town Meeting, the Residential Development Encouraging Open Space (R.D.E.O.S.), Planned Residential Development (P.R.D.) and Planned Residential Development for Seniors (P.R.D.S.) bylaw was passed. The intent of this by-law is to encourage the clustering of houses, less paving and protection of meaningful open space.

An attempt to adopt a Transfer of Development Rights bylaw to steer development away from areas in appropriate for development: Zone II's, bogs, land abutting ponds, open space and the ocean failed at Town Meeting. Subsequent attempts to revise the bylaw failed to garner a favorable recommendation of the Planning Board due in large part to total number of units that could accrue in the receiving area; a more than one hundred acres site in the process of being "strip mining" under the guise of industrial development.

With the current level of development it is increasingly important that Kingston take a close look at what desirable land is still available and move to acquire areas with valuable environmental assets in order to support and build a sustainable community.

Build Out Analysis

Over the past fifteen years, Kingston has gained significant numbers of new residences and has seen its commercial base extended. As growth pressures continue, it is helpful to consider the Town's theoretical buildout: the potential number of new homes and businesses that could be built under current zoning situation. Several build out analyses have been completed for the Town in addition to the following for the Master Plan analyses have been conducted for the Kingston, Plympton Plymouth Transportation Induce Growth Study and by the Executive Office of Environmental Affairs (EOEA) for the Building Vibrant Communities program. These various projects have produced a range of numbers. Following is a description of the assumptions, methodology, limitations and findings of the Master Plan build out analysis with comparisons to the EOEA's build out analysis.

Assumptions

1. Although there may be existing non-conforming uses within zoning districts, for this analysis it is presumed that the land use classification also reflects current zoning.
2. Several assumptions were applied to the data to derive the maximum number of developable lots. First, to account for the roadways and utilities required to service new development 10% of the undeveloped land was subtracted. Second, another 20% of the undeveloped land was deducted to account for land with environmental constraints such as wetlands, soils unsuitable for supporting septic systems, and land within the Flood Plain and Water Resource Protection Districts. The remaining acreage was then divided by the minimum lot sizes allowed by the Kingston Zoning By-Law for each use to determine buildout.
3. It is assumed that many of the individual residential lots that remain vacant have some development capability. Since these lots are generally independent and not held in common ownership, it is likely that one residential unit per lot is possible. It is understood that some of these parcels may be completely constrained by roadway access or physical constraints such as wetlands, open water, topography or geology rendering the lots unbuildable for natural or financial reasons. For this analysis, however, it is assumed that most residentially zoned vacant parcels are buildable.
4. All property owned by the United States, the Commonwealth of Massachusetts, the Town of Kingston, or other Massachusetts communities is considered protected from development for the purposes of this analysis. Certainly there are means of removing these properties from public ownership; however, this type of change in use would require public scrutiny and is not considered in this analysis. In addition to governmental holdings, the Kingston Assessors Office considers other entities exempt. These entities with property in Kingston include religious organizations (e.g., Sisters of Divine Providence) and non-profit organizations (e.g., Boy Scouts of America). Past experience has indicated that non-governmental and non-profit organizations often end up selling off some or all of their property. Therefore, the Kingston Master Plan Committee reviewed the

- inventory of properties with land use codes in the 900's and determined that land owned by religious organizations and some non-profit organizations should be included in buildout calculations.
5. There are currently an estimated 790 buildout lots under Chapter 61, 61A or 61B protection, (see page 6-6 for definition of Chapter 61 Lands). Typically, these lands are assumed to be without permanent protection, however the Kingston Master Plan Committee also reviewed these properties and determined that only 20% (158 lots) of these properties could be developed if removed from Chapter 61 protection. The Committee determined that 80% (632 lots) of these properties would not be able to be developed due to environmental constraints (most of these lands are maintained as cranberry bogs).
 6. It is assumed that residential parcels of three or more acres have additional buildout potential that can be estimated by consideration of existing zoning, physical or environmental constraints, and other regulatory or deeded restrictions.

Limitations³

The methodology and assumptions explained below yield figures representative of a realistic potential for future development within Kingston. The figures are intended to be utilized for Town-wide assessment – this study is not intended to be used for evaluation of individual parcels. The information provided herein has much greater accuracy on a cumulative level than on a site specific level, especially as applied to smaller parcels which were evaluated solely on statistics related to parcel size, land use, and occupancy (structures or vacant) and not site-specific conditions.

Some parcels may have greater development potential and others may have less based on actual site conditions. In addition, significant reliance has been given to Assessors' information that may include some errors in identification of land use. There are two types of potential errors in these records: human error in data entry, and misclassification of land use. For example, land assumed to be non-developable might have development potential. Occasionally these lands become subject to development when none was assumed feasible. It is assumed that these errors are minimal.

Methodology

The buildout for the Town of Kingston was prepared using the Kingston Assessor's data (updated January 1996). The Assessor's data was initially sorted by Massachusetts Land Use Classification (LUC) Codes. Land use codes indicating potentially developable land were then selected for assessment for consideration as potentially developable land. These land use types included vacant residential, commercial and industrial land; private non-profit

³ The text of the build-out analysis has not been updated for this Plan, however it is significant to note that the Ch 40 B and 40R impact on Kingston was not likely considered. Since the last plan, over 1000 units of housing have been permitted under these incentive programs to build affordable houses in Kingston. The impact of this growth will certainly be felt in open space, town services, and impact on natural resources.

organizations; and property under MGL Chapter 61, 61A and 61B restrictions as the land is without permanent protection.

Parcels were grouped to reflect residential, commercial, and industrial uses.

Residential Land

Residential buildout was analyzed in four distinct categories: 1) Improved land greater than three acres, 2) Developable land, 3) Potentially Developable land, and 4) Undevelopable land. Undevelopable land (land use code 132) was not included in buildout calculations, as experience has shown that these lands are rarely developed.

Each vacant parcel's "buildable acreage" was divided by Kingston's typical residential lot sizes (40,000 sf) to determine the number of additional potential residential lots. As noted above, a total of 30% of the lot area was deducted to account for roads; utilities; and environmental constraints, such as wetlands and the Water Resource District. Larger improved residential parcels were subjected to an additional 40,000 sf deduction to accommodate the existing structure. Map 2-4, Build Out by Sub –Regions, illustrates this build out potential.

Additionally, the so-called "Chapter 61 lands" – including forestry, agricultural/horticultural and recreational parcels – are currently restricted from development under State law. However, since this land is not permanently protected, a portion of this land (20%) was included in the buildout. Generally these parcels are located in residential zoning districts and become subdivisions if developed.

Residential Buildout Potential

A total of 1,803 acres of land is classified as vacant residential (developable or potentially developable) in Kingston. This translates to a potential for approximately 1,046 residential lots at some time in the future, given existing zoning. Further, it is estimated that the development of larger improved residential parcels of greater than three acres could add approximately 822 additional housing units within the Town in the future. Overall, two-thirds of the total potential residential lots are located in the westerly and northerly sections of town. One-quarter are located in the southerly section, with only 8% in the easterly section. Smaller improved residential parcels (less than 3 acres) are not critical to the analysis since it is unlikely that many of these parcels will support either subdivisions or Approval Not Required (ANR) lots.

The analysis prepared by EOEI indicates a potential of 3,661 additional lots including potential multifamily and planned residential development and 166 mobile home park lots.

Commercial and Industrial Land

Commercial and Industrial development potential was estimated by analyzing all parcels of vacant commercial and industrial land. The number of potential lots was determined by dividing the estimated buildable land area by the minimum allowable lot size of 40,000 sf. Industrial zones are found in the northerly section

of town on Summer Street and the easterly section adjacent to Route 3 on Brewster Ave. and on Prospect Street. There is also a commercial/industrial park district located in the easterly section of town, near the Independence Mall and the new commuter rail station. The main commercial strip runs along Route 3A, with the Independence Mall located in the easterly section of town, off Route 3. Additionally, there are several scattered small industrial or commercial parcels located throughout town.

Commercial Buildout Potential

Vacant commercial properties⁸ are located primarily in the western quadrant of the town, along Grove and Pembroke Streets. In all, there are approximately 420 acres of vacant commercial land. Given one-acre lots, this land could be expected to yield another 279 or so lots. Applying an estimate of 5,800 gsf per acre (13.3%) for commercial land in Kingston, the Town has the potential to attract an additional 2,436,000 sf of commercial space. These numbers can be applied to determine the tax benefit to Kingston by utilizing comparable per square foot values. Although the numbers produced by EOEPA differ widely by potential lots of more than half at 126 lots the net in potential square feet of 2,016,825 differs by only 21%.

Industrial Buildout Potential

Approximately 266 acres of vacant industrial land⁴ remains in Kingston with an estimated buildout of 128 one-acre lots. However, this figure may be high as many industrial users require greater than one acre. Much of the available vacant land is located in the easterly and southerly sections of town, in the vicinity of the Independence Mall and train station. To date the expected stimulus to the area by the opening of the commuter rail station has not spurred industrial activity in the vicinity. Much of the area activity has occurred with commercial uses especially at the Mall. Much of that activity is more attributable to the relocation of Route 44 and a connector road that improves access to north west Plymouth and south east Kingston. At 12,000 sf per buildable acre it is estimated that an additional 3,192,000 sf of industrial space could be anticipated in Kingston, 81% of which would occur in the easterly and southerly sections of town. The Building Vibrant Communities study showed potential build out for industrial land at 2,170,831 square feet. An additional 1,968,169 sf of commercial space could also be built in the southeast section of Town.

Protected Land

Levels of Protection and Risk of Development

“Protected land” falls into several categories, with varying levels of protection against future development. As mentioned in the “assumptions” section, we assume that publicly-owned property is the most highly protected from future development. Although it is entirely possible for the Town, Commonwealth or United States to remove public land from public ownership, this scenario is unlikely and would require public scrutiny if it were proposed. However, tax

⁴ Lands located within in the Commercial/Industrial Park zoning district are included in the industrial buildout although some commercial uses are permitted.

exempt land under ownership by religious or non-profit organizations was included in the buildout analysis. These lands contributed an additional 367 house lots to the overall residential buildout number.

Land that is currently taxed under the exemptions allowed by M.G.L. Chapters 61, 61A, or 61B does not have significant protection from development. Property under these designations allows the Town a right of first refusal on the land should the property owner decide to remove the restricted status. The designation of private parcels as Forest lands (Chapter 61), Farm lands (Chapter 61A), or Private Recreation lands (Chapter 61B) restricts the use of land in exchange for significant reduction in taxes. Forest Lands require a minimum of ten contiguous acres which can be classified by a state forester and a forest management plan. Once the application has been received and approved the classification statement functions as a lien upon the land for taxes levied under the provisions of M.G.L. Chapter 61. The landowner must re-file every ten years or the Assessor will remove the land from classification. Farm Lands and Private Recreation land must have a minimum of five acres and the status must be renewed every year.

Land may be taken out of Chapter 61, 61A or 61B classification by notifying the Town and paying a withdrawal penalty tax. However, such land may not be sold for, or converted to, residential, commercial or industrial use while taxed under the classification without written notification of the municipality in which it is located. The Town has 120 days to exercise its right-of-first-refusal option to purchase the land. Should this time period pass and/or the Town state in writing that it will not act on its option, the land may be developed for alternative use(s), removing it from its “open” status as farm, forest, or recreation land.

Buildout Potential of Agricultural, Forest & Recreational Land (Chapter 61 Property)

The parcels that are currently under limited tax status as forest, agricultural or recreation lands are only minimally protected from future development – and protection is only ensured if the Town is able to act on its right of first refusal to purchase when the property owner makes a decision to remove the coverage under M.G.L. Chapter 61, 61A or 61B. Therefore it is critical to assess the property that is currently listed under these Chapters to identify those parcels which are most likely to be subjected to development pressure in the near future. This is a role that the Conservation Commission or Open Space Committee and Recreation Commission can play.

It is beyond the scope of this study to review each privately owned parcel individually to determine if and when the property owner might consider development. However, some generalizations can be made. Kingston currently has approximately 1,172 acres in restricted uses. The Master Plan Committee performed an analysis of lands under this classification and determined that only 20% of these lands would be considered developable. If this 20% were entirely developed, 156 additional house lots could be expected.

Table 2-6 provides a summary of buildout potential, by land use category and section of Town. Map 2-4 depicts the location of “Buildout Regions”. This level of analysis has helped to understand likely buildout, given constraints of the land. It is important to reiterate that a buildout analysis should be viewed as a whole, and that site-specific information used was generally in the form of maps and not detailed site inspection. In no case should the parcel specific figures be utilized to determine actual development capability of individual parcels.

Table 2-6: Potential Buildout by Area of Kingston					
	Number of Lots (% of Total)				
Residential	West	North	East	South	Total
Vacant Developable	376 (36%)	232 (22%)	69 (7%)	369 (35%)	1,046
Chapter 61 Lands	51 (33%)	68 (44%)	8 (5%)	29 (19%)	156
Tax Exempt	119 (32%)	130 (35%)	23 (6%)	95 (26%)	367
Sub-Total Residential	546	430	100	493	1,569
Improved Lots Over 3 acres	334 (41%)	249 (30%)	90 (11%)	149 (18%)	822
Total Residential	880	679	190	642	2391
Building Vibrant Communities Build out Analysis					3492
Commercial	249 (89%)	6 (2%)	1 (0%)	23 (8%)	279
Building Vibrant Communities Build out Analysis					281
Industrial	0 (0%)	30 (23%)	66 (52%)	32 (25%)	128 (168 EOE)
Building Vibrant Communities	Build out	Analysis			168

Source: Build out based on 1996 Assessors Records from the Town of Kingston.

Conclusion

It is impossible to predict the rate at which residential development will occur in Kingston over the next several decades. It is reasonable to expect that the current pace of approximately 100 new single-family homes per year will continue, especially over the next several years as Kingston’s perceived distance to Boston is lessened by the extension of the commuter rail, and as the suburban fringe continues its outward sprawl. In the year 2006, a limitation on the number of new homes that can be built became effective, which restricts new construction to 70 per year. The population and buildout projections (see Table 2-7) reflect this adjustment in the projected number of new households. However, it is important to consider that this limitation is waived for 40 B and 40R developments, thus the 1000 units that have been permitted or which are likely to be permitted will not have to comply with this restriction.

The Master Plan Buildout Analysis indicates approximately 2,400 new homes could be constructed on vacant, residentially zoned land. The construction of 100 new homes per year until 2006, with 70 new homes per year thereafter, would result in total buildout occurring in approximately 30 years under existing zoning regulations. Again, it is impossible to predict when or if total buildout will occur. The final buildout number is often reduced by unanticipated environmental and/or

market constraints. Since the current buildout figures are based on land use/density regulations in effect at the time of analysis, any changes to these regulations could modify the timing and/or location of buildout.

Based on recent growth trends and the 40B and 40R phenomenon, Kingston already appears to be exceeding its estimated rate of build out and its build out potential.

***From 1998 Kingston Master Plan*

Infrastructure

1. Transportation System

Several major highway routes merge in the area surrounding Kingston Center. Routes 27 and 106 connect Kingston to the towns to the west and eventually lead to the city of Brockton. Route 80 provides a link to West Plymouth and Route 44 via Route 58. Routes 3A and 53 provide local access to the north to Duxbury and the Hanover area. To the east, Route 3A provides access to the business districts of North Plymouth and Plymouth Center. Route 3 provides easy access to Cape Cod or Boston. The completion of Route 44 has made a direct link from the west to Route 3 and has cause rapid expansion of the Plymouth commercial /industrial area.

Public transportation currently available is the privately owned Plymouth & Brockton bus line, providing commuters access to Boston and the quasi-public MBTA commuter rail providing access from Plymouth to Boston with a major regional station in Kingston for parking up to 1300 cars. The GATRA bus provides links to Kingston and Plymouth Center shopping, business and general main route transportation and is in a trial period.

2. Water Supply Systems

Most of Kingston's residents are served by the Kingston Water Department. The Water Department has six wells and three storage tanks to serve its customers. As shown on map #4 in the Appendix the wells are located off Winthrop Street, South Street, Smith's Lane, Soules Pond and Mill Gate Road (2 well sites). In 1999, the Town obtained a new Water Management Act Permit allowing the start-up of the new Trackle Pond Well, off Route 80. In 2000-01 the Kingston Water Department settled its long dispute with the Exxon Company due to the contamination (and threat) from the gas station on Summer Street which caused the town to cease pumping from the Winthrop Street well. The settlement was for \$475,000.

Locations of potential public water supply well sites are also shown on the above referenced map.

These include: "#1-86", south of the existing Grassy Hole well, now under development; "Muddy Pond", east of the pond; "Wapping Road", on town-owned

land north of Wapping Road. Water storage tanks are: off Elm Street at the southerly junction with Indian Pond Road; off Smith's Lane across from the Fire Station; and the two million gallon tank constructed in 2001 to serve north west Kingston on property of Silver Lake Regional High School.

Table 7-1: Existing Wells in Kingston				
WELL	YEAR INSTALLED	CAPACITY (mgpd/24 hrs.)	SIZE/TYPE	NOTES
Soule's Pond	1976	0.360	24 by 48 inch gravel packed well	Located in the Jones River Watershed
South Street	1951	1.080	94 feet deep, 12 by 18 inch gravel packed well	Located in the Jones River Watershed
Millgate Road	1975	0.720	73 feet deep, 24 by 48 inch gravel packed well	Located in the Jones River Watershed
Grassy Hole on Smith's Lane near Independence Mall	1981	1.152	90 feet deep, 24 by 48 inch gravel packed well	Located in the Jones River Watershed
Trackle Pond	1997	1.000	96 feet deep, 24 by 48 inch gravel packed well	Located in the Taunton River Watershed
Winthrop Street	1964, pumping station rebuilt in 1988	0.072	48 feet deep, 24 by 48 inch gravel packed well	Well closed since 1987 when petroleum products were found in the groundwater

Source: Town of Kingston Water Department (1997), Whitman & Howard (1994), Coler & Colantonio (1997).

The zones of contribution to existing and future well sites have been calculated using computer model by the Water Department consultants and are included on maps in Appendix B. These are the areas where precipitation that seeps through to the water table (recharge) will reach the public supply well. Anything disposed of into the ground in these areas, such as septic tank effluent or toxic chemicals, may also reach the well. A Water Resource District zoning by-law was adopted by the town in 1987 to address this potential problem. It has been amended a few times. Discussions between the Old Colony Planning Council, City of Brockton and Kingston could lead to amending the over-lay map to include land draining to Silver Lake in order to protect the water quality of Silver Lake as well as groundwater supplies at the headwaters of the Jones River.

Regional Water Supply

Although the Town of Kingston has always had, and expects in the future to have, enough water within its geographic boundaries to take care of residents' needs

until buildout is reached, other area towns are not so fortunate. The likely long-term solution to the water supply issue is a regional approach. It is in Kingston's best interest to take a leadership role in the development of a regional plan. The City of Brockton, with a population of about 93,000, has used water from Silver Lake, as its major source of water for nearly 100 years. The effects of these withdrawals have been deleterious to the river system. The City has, over the last century, increased its demand on this resource, attempting several times, unsuccessfully, to secure additional water from the Jones River basin. Presently under construction is the Aquaria desalinization plant in Dighton which has a contract to supply Brockton with water from the Taunton River.

Kingston has always had to guard against Brockton's overuse of Silver Lake's surface water. In 1964 (Acts of 1964, Chap. 371), the legislature created the Central Plymouth County Water District (CPCWD). Through membership in the CPCWD, towns such as Kingston whose water resources are used by the Brockton system, can participate in the management and protection of the regional water resource and share in its use if necessary. Although the CPCWD has not continued as an active entity, its legislative mandate is clear and Kingston would do well to work to re-instate this body and the logical forum to discuss regional water resource issues.

The draining of Silver Lake as a water supply source has a drastic effect on the headwaters of the Jones River. Lowering the lake level diminishes downstream flow and has a significant impact on the local environment. Through the Acts of 1964, the capacity of the Silver Lake water supply has been augmented by the diversion of waters from Monponsett and Furnace Ponds and is linked to Kingston's Pine Brook reservoir one mile east by a 24" pipe. Pine Brook is a vital tributary to the maintenance of the Jones River. Diversion for six months of any calendar year is allowed by Chapter 21G, the Water Management Act, only if deemed necessary by a proclamation of Emergency by the Massachusetts Department of Environmental Protection. Emergency authorization is required by the DEP prior to any pumping of Pine Brook. In 1992, the Water Resources Commission denied Brockton a permanent transfer from Pine Brook because of its importance to the Jones River. In 1998 Kingston purchased the Cranberry Watershed Preserve—the 270 acre former Kelleher land that encompasses the Pine Brook reservoir and diversion site. Thus it would be very difficult for the City of Brockton to ever implement a diversion from this site without Kingston's assent and participation. In 2000, the Town joined an appeal initiated by the Jones River Watershed Association of a DEP permit issued to Hanson for a well on Monponsett Pond. Because use of the Pleasant Street well could reduce the amount of water diverted to Silver Lake from Monponsett Pond without reducing the amount of water taken from the lake, the town took action to defend the local water resources from increased adverse impact. Reduced water levels in Silver Lake lead to die-offs of two rare mussel species and extended periods of no stream flow in the upper Jones River. In 2008, JRWA provided notice to EPA, DEP and Brockton of its intent to sue all three in connection with perceived violations of the Clean Water Act in the management of Silver Lake.

Within the Kingston town boundaries are numerous wetland areas, a number of

which are sources of small ever-flowing streams leading from the wetlands to ponds and then to the ocean. Most of these are fed by springs. One such spring, which the town should preserve, appears a few yards north of the Jones River and approximately 150 yards east of the Elm Street dam. The abundance of these springs indicates the richness of the underlying aquifer.

3. Wastewater

Wastewater is currently treated in individual septic systems and several small package plants that are privately owned and maintained (and the Silver Lake Regional High School waste water treatment plant.). Most of the homes in Town were built prior to 1976, when less stringent septic regulations existed. In 1976, Title 5 was first established; more stringent regulations were promulgated on March 31, 1995. These new regulations require that all septic systems be inspected prior to a home being sold, with inspection results being recorded with the Board of Health. The Board of Health also keeps records of all septic system pump-outs performed within the town. Most cesspools must be upgraded to a leaching system prior to or upon the sale of a home. Many homeowners had their systems inspected soon after the regulations became effective to determine whether their system could satisfy the new requirements. The results of these inspections, whether positive or negative, had to be reported to the Department of Environmental Protection (DEP).

The new regulations also stipulate stringent regulations for new construction in an effort to eliminate groundwater contamination from independent sewage disposal systems. According to the Board of Health, the areas with the most problems with septic system failure are the Rocky Nook, River Street, Landing Road and downtown areas.

The sewer project has been constructed, with an addition of Phase II nearing the end of construction. Phase III expansion is being discussed as part of the 1021 Kingston Place project. As a result of the sewer construction, Rocky Nook has seen a boom in upgrading of housing units and “third tier” lot development. Build-out in this area is being maximized. A downside of the sewer project has been the lack of coordinated planning between various departments that is short circuiting the environmental improvements. Because the sewer was taken on by the town to improve the quality of the river and bay, waivers granted by the board of health in a decision in 2007 allowing new septic systems within the sewer district is counter productive.

4. Solid Waste Disposal

The former landfill has been capped and closed. The Town’s primary solid waste is delivered by residents and compacted at the landfill and transported to SEMASS in Rochester for disposal. Residents must bring their solid waste to the facility, or they may contract with a private collection company for curbside pickup. The Town is transporting its construction and demolition material to a landfill in Bourne under a Memorandum of Agreement.

Approximately 22% of Kingston’s solid waste is recycled

Kingston Solid Waste 2007

tires	5.52	Tons	recycled
cardboard	43	Tons	recycled
Newspaper	225	Tons	recycled
Commingled/ Plastic & glass	101	Tons	recycled
Scrap iron	258	Tons	recycled
Waste oil	3500	Gallons	recycled
TVs	13	Tons	recycled
Monitors	5	Tons	recycled
Refrigerators	22	Tons	recycled
Microwaves	0.5	Ton	recycled
Propane tanks	4900	Units	recycled
Construction & demolition	294	Tons	Bourne/chipped
Waste to Energy	4502	Tons	SEMASS
mattresses	1500	units	recycled

Currently, the Town accepts newspapers, magazines, plastic, glass, cans, bottles, batteries, metals, clothing, compost, burnable wood, fluorescent tubes and tires. In conjunction with the South Shore Regional Disposal **Planning Board**, the Town has submitted regional grant applications for funds to collect household hazardous waste (not to be located in Kingston) and for technical assistance to develop an RFP for the transportation and disposal of sewerage sludge.⁵ Used oil is collected and burned to heat the highway barn.

5. Build-Out Analysis and Long Term Development Patterns

The Old Colony Planning Council has conservatively projected that there will be 11,684 people living in Kingston by the year 2010. Kingston exceeded this number by 2008, by its own count which is known to undercount residents. However, this is a significantly larger projected percentage increase than for the Old Colony region as a whole, which is expected to have only a 21.5% increase in the same time period.

Kingston experienced its most rapid population growth from 1950 to 1970 (+73%); however this growth was not as dramatic as that experienced by communities closer to Boston. Further, similar growth also occurred in Kingston in the twenty year period from 1960-1980 (+71%), most likely due to the aforementioned expansion of the suburbs. Despite this growth, there is still significant land remaining in Kingston for future development.

Table 2-3: Population Trends In Kingston

⁵ Water Supply, Wastewater, Solid Waste and Population updated (Nov 2001) from the excerpted portions of the 1998 Master Space Plan

Year	Population	Percent Change	People Per Square Mile
1920	2,505	--	132
1930	2,672	7%	140
1940	2,783	4%	146
1950	3,461	24%	182
1960	4,302	24%	226
1970	5,999	39%	315
1980	7,362	23%	387
1990	9,045	23%	475
2000	11,780	30%	636.1
2010	14,027	22%	757

*Sources: 1920 - 2000 population from U.S. Census;
2010 population projections prepared by
Beals and Thomas Inc. (BTI) as part of buildout analysis.*

As can be expected, the overall character of Kingston has changed since the preparation of its 1970 Master Plan. Population has increased by 76% since 1970, while the number of household has increased at twice that rate. The average number of persons per household has decreased 40% from 3.56 to 2.58. In that period population density has more than doubled. Increases in population and density are evidenced by increased traffic congestion and overburdening of Town services which can eventually lead to a loss of community character.

As a part of the wastewater facilities planning process, the consulting firm of Whitman and Howard included projections of approximately the same magnitude (1983 study). A rough build-out estimate (maximum possible population at current zoning) was calculated for this plan using figures for remaining available land for development. Assumptions used for simplicity were that only single family residences would be built and that the average household size would remain three persons, and that the current zoning regulations would remain in effect. Therefore the maximum future population would be 27,345 persons.

Table 2-6: Potential Buildout by Area of Kingston

Residential	Number of Lots (% of Total)				
	West	North	East	South	Total
Vacant Developable	376 (36%)	232 (22%)	69 (7%)	369 (35%)	1,046
Chapter 61 Lands	51 (33%)	68 (44%)	8 (5%)	29 (19%)	156
Tax Exempt	119 (32%)	130 (35%)	23 (6%)	95 (26%)	367
Sub-Total Residential	546	430	100	493	1,569
Improved Lots Over 3 acres	334 (41%)	249 (30%)	90 (11%)	149 (18%)	822
Total Residential	880	679	190	642	2391
Commercial	249 (89%)	6 (2%)	1 (0%)	23 (8%)	279
Industrial	0 (0%)	30 (23%)	66 (52%)	32 (25%)	128

Source: Buildout based on 1996 Assessors Records from the Town of Kingston.

It is reasonable to expect that the current pace of approximately 100 new single-family homes per year will continue, especially over the next several years as Kingston’s perceived distance to Boston is lessened by the extension of the commuter rail, and as the suburban fringe continues its outward sprawl. In the year 2006, a limitation on the number of new homes that can be built will become effective, which will restrict new construction to 70 per year. The population and buildout projections (see Table 2-7) reflect this adjustment in the projected number of new households. However, as indicated previously, this restriction cannot be imposed on 40B and 40 R developments.

The Master Plan Buildout Analysis indicates approximately 2,400 new homes could be constructed on vacant, residentially zoned land. The final buildout number is often reduced by unanticipated environmental and/or market constraints. Since the current buildout figures are based on land use/density regulations in effect at the time of analysis, any changes to these regulations could modify the timing and/or location of buildout.

Based on an estimate of three persons per household, Kingston’s population upon buildout is expected to be approximately 17,750 people.

The Zoning Map of the town in the Appendix B.

Please link to the email address below, and reference the section and page number as shown if you want to offer your input. You may copy and paste all or part of the above text into the body of your email and edit it there before sending to the Open Space Committee for consideration. Please indicate your proposed changes by using *italics* or **red** text when adding new or replacing existing text. (Additional instructions for other methods of editing are described on the main page)

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