



TOWN OF BURLINGTON

Open Space & Recreation Plan



2011

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Since the latter half of the twentieth century, urban sprawl and development booms have altered the landscape of Massachusetts towns dramatically. As more development occurs, government and individuals are realizing that open space is a finite resource. Often recognized only for scenic qualities and contribution to the character of a town, open space is now being seen as valuable for a variety of reasons influencing the health and well-being of area residents such as natural resource conservation, availability of passive and active recreation opportunities, and for agricultural purposes. Proper management of such space is imperative to achieving and maintaining sustainable and healthy communities.

The 2011 Open Space and Recreation Plan for the Town of Burlington has been prepared in order to provide goals and guidance for land use management and acquisition over the next seven years. Since Burlington is a developed suburb, quickly approaching both residential and commercial build-out, protection of what unprotected, undeveloped parcels remain is of utmost importance.

The two largest undeveloped properties in Town, The Landlocked Forest / Parcel and Mary Cummings Park / The City of Boston Property, while protected under article 97, are in a very desirable area and are continually examined for potential development. Their incomparable value as open space must be communicated and understood to ensure their continued existence.

Other issues that are most important to the Town, and discussed throughout this report, include:

- Providing additional athletic fields for high school sports, youth sports, and adult athletic programs
- Providing passive recreation areas for an ageing population
- Protecting Burlington's water resources
- Actively managing, maintaining, and striving to expand existing conservation and recreation areas
- Increasing public awareness and use of Conservation and Recreation resources

2.1 STATEMENT OF PURPOSE

The primary purpose of the Burlington Open Space & Recreation Plan is to aid the Town in open space planning. The 2011 Burlington Open Space & Recreation Plan has been written with extensive input from town residents and municipal departments, allowing the Town to understand and incorporate, wherever possible, community preferences in open space planning and management through 2018. By truly understanding the wishes of the residents and the needs of the community, the Town is better equipped to make decisions regarding open space acquisition and management while ensuring natural resource protection.

As Burlington has seen extensive growth in the last half-century and now faces build-out, protecting the remaining open space in town has become increasingly important. An Open Space & Recreation Plan with an accurate inventory of existing open space and a detailed management plan will ensure the most benefit to the community. Inclusion of anticipated future needs will help the Town to proactively manage for continued use and enjoyment of open space while encouraging sustainable development and redevelopment in town. As an added benefit, an up-to-date plan will qualify the Town for state reimbursement programs for open space acquisition and protection and programs for recreation land acquisition and development. The completion of this report plays a role in qualifying for grant opportunities, such as the Commonwealth Capital score, LAND grant, and PARC grants.

Burlington has been successful at achieving several of its goals from the 2005 Open Space and Recreation Plan. With money from Massachusetts Parkland Acquisitions and Renovations for Communities (PARC) Program, the Town has begun construction of Wildwood Park, a much-needed recreational facility featuring a playground, a baseball field, a softball field, two basketball courts, a walking path, and two parking areas.

Below are just a few more of the open space projects completed since 2005.

- The Conservation Department has re-established a much-needed land stewardship group. The Burlington Conservation Stewards are a small but dedicated group of volunteers who work with the town on public education and maintenance of Conservation Areas.
- The Conservation Department has continued to work with Boy Scouts, Eagle Scouts, and the Burlington Conservation Stewards on trail enhancement, clean-up, bird and bat house construction, and other management and maintenance activities for the town's Conservation Areas.
- The Recreation Department completed installation of a nine-hole disc golf course, rotary ball field, and a new softball field at Simonds Park. The tennis courts were also refreshed with a new playing surface and new lighting.
- The Appalachian Mountain Club Boston Chapter Trails Committee constructed low-impact wetland crossings at several locations within Mary Cummings Park / The City of Boston Property and the Friends of Mary Cummings Park erected kiosks at Flyers Field, Marvin Field, and Rotary Field.

- New mapped trails, including two boardwalks over wetlands, were created in The Landlocked Forest / Parcel by the Friends of the Landlocked Forest.
- A new playground was established at the Francis Wyman School, which is to be maintained by a parents group.
- The Conservation Commission created the Conservation Land Subcommittee with the goal of introducing residents to the conservation lands by way of monthly activities on these properties.
- 11.3 acres of land have been permanently protected as conservation land since the last Open Space & Recreation Plan update.
- A synthetic turf football field was constructed at the Burlington High School and significant upgrades to the bleachers and restrooms were completed.
- A new playground and new restroom facilities were constructed at Rahanis Park. Regan Park is now home to a New Hemisphere climbing structure.
- The Conservation Department submitted documentation necessary to certify an additional vernal pool in town.

2.2 PLANNING PROCESS AND PUBLIC PARTICIPATION

Conservation Commissioner Gretchen Carey and Conservation Assistant Jodie Wennemer prepared this Open Space & Recreation Plan update in cooperation and consultation with multiple Town departments including the Department of Public Works, Planning Department, Recreation Department, Health Department, Conservation Department, ADA Coordinator, Water Department, the Town Clerk's Office, and the Town Administrator's Office.

Additionally, public input was sought during the rewriting process through various channels. Public participation techniques included in the development of this update are outlined below. While outreach specific to Environmental Justice neighborhoods was not performed, techniques used were designed to reach the broadest possible audience. Expanded and inclusive outreach will engage Burlington's environmental justice populations in environmental decision-making, ensuring all of Burlington's communities' needs are addressed.

Public Events

The Conservation Department held a series of events to increase public awareness and appreciation of Conservation Areas and to solicit feedback on public enjoyment of these lands. Outreach for these events was designed to reach a broad audience with diverse interests. Events were advertised through online, print, and television media in an effort to engage the entire Burlington population. Events were held at various conservation areas throughout Town to ensure equitable access to the events throughout Burlington's neighborhoods. Though available in Town, language interpretation was not requested for non-native English speakers at any of the public outings.

Public Opinion Meeting

After a significant media push designed to reach a diverse audience, involving the local newspapers and local television station, BCAT, the Town held an Open Space & Recreation Plan Public Opinion Meeting on June 10th, 2010. The goals of the meeting were simply to identify and record public opinions regarding open space, which would then help guide land management in town. The attendance to this meeting was modest, and decidedly biased toward conservation-minded residents and advocates of passive recreation and ecological preservation, and so a town-wide survey was also created in an attempt to reach a wider interest base and larger portion of the Town's population.

Public Opinion Survey

After the Open Space & Recreation Plan Public Opinion Meeting, a survey was made available (both online and on paper) to Burlington residents for the span of one month. An online survey was available to anyone with computer access and the paper version was made available at several locations in town, including the Town Offices and the Town Library. The availability of the survey was advertised through various local media outlets as well as the Town website. Over 200 responses were collected, tabulated, and analyzed. See Appendix 1 for an example of the survey and Appendix 2 for the analysis of the responses.

3.1 REGIONAL CONTEXT

The Town of Burlington is located thirteen miles northwest of Boston and twelve miles south of Lowell in Middlesex County in northeastern Massachusetts. It is bordered by the towns of Bedford to the west, Billerica to the northwest, Wilmington to the northeast, Woburn to the southeast and south, and Lexington to the south (see Map 1). Burlington is a member of the North Suburban Planning Council (NSPC), one of eight Metropolitan Area Planning Council (MAPC) sub-regions. The NSPC includes nine communities and is currently chaired by Burlington's Planning Director, Tony Fields. MAPC periodically produces a regional "master plan". Metrofuture, the current master plan, examines a variety of planning issues affecting planning and growth (housing, economic development, and open space preservation) of the region. Metrofuture provides several goals and strategies for open space protection which are further addressed in Section 7.

Burlington is commonly recognized as a shopping and entertainment destination and is known as an important regional employer. Additionally, because of its commercial draw and major surrounding roadways (see Section 3.4.2), it is a key commuter town. The town also contains a large, primarily middle income, residential community. These components of Burlington's character materialized from a period of intense growth and activity brought on by the construction of Route 128. Such development brought wealth to the community, but also greatly reduced its available open space. Now in the latter stages of the suburban development cycle, Burlington is working to save what open space remains. It is also working to meet future demands of a changing demographic to improve the Town's habitability and sustainability.

Burlington is home to the Burlington Mall, a well-known upscale shopping center, directly across the street from a ten-screen AMC movie theater and a large two-story Barnes and Nobles bookstore. The Burlington Mall is one of the largest in the region with 175 shops and a 775-seat food court. Within a quarter mile of the mall in most directions you can find strip malls, fast food and dine-in restaurants, and brand name retail chains – all of which draws numerous residents and visitors. Large companies also contribute to the character of the town including the Oracle headquarters and the Lahey Clinic Medical Center.

Burlington is located at the headwaters of three watersheds, as depicted on Map 6. Much of western Burlington lies within the Shawsheen River watershed. The northeastern part of town lies within the Ipswich River watershed. Finally, southeastern Burlington lies within the Mystic River watershed. Although sites along Burlington's waterways are prone to flooding, much of the land was built upon prior to regulations limiting such actions. Additionally, redevelopment of such land will continue due to existing zoning development laws and limited environmental regulations for previously disturbed lands.

3.2 HISTORY OF THE COMMUNITY

Burlington went through numerous transformations before becoming an independent town. Like most of the United States, Native Americans first lived and prospered in the region. This dynamic changed in 1640 when European families settled in the area, which then became known as Charlestown Woods. In 1642 a large part of Charlestown Woods was established as the City of Woburn, the northeast corner of which became known as Shawshin. By 1730 Shawshin became a separate geographical entity known as the Woburn Second Parish, and in 1732 its own meetinghouse was built – the Burlington Meetinghouse.

Sixty-nine years later, on Thursday, February 28, 1799, the Woburn Second Parish was officially incorporated as the Town of Burlington.

Over the next 100 years, Burlington consisted of a small agricultural community with only a few hundred residents. It contained gristmills, sawmills, a blacksmith shop, and tavern stops where travelers were offered overnight accommodation, food, and drink. Around 1840, the first genuine town industry, Reed's Ham Works, began. Although the town also developed a limited industry in shoe crafts and market agriculture, farming was the dominant trade.

In the 1920's, summer cottages were built in the Winnmere and Havenville section of the Town for city residents to vacation. However, in the Great Depression, many of these cottages became their owners' permanent homes due to financial difficulties. To support this expansion, by 1949 the Town had formed a water district with the goal to provide a fresh, clean water supply.

In the early 1950's Route 128 was built – the greatest infrastructure change to impact the Town to date. Prior to this, Burlington was inaccessible by major roads or rail services. Route 128 brought traffic from all over the state, resulting in considerable residential and industrial growth. Farmlands gave way to housing subdivisions, office buildings, and the electronics industry. New schools had to be built to support the influx of relocating families. In the ten years between 1955 and 1965, Burlington was reported as the fastest growing community in the state.¹ The Town's population hit its peak at around 24,000 residents in 1974. The population remained reasonably steady at around 23,000 residents for the next 30 years. However, nearly 1000 multifamily housing units have been permitted over the past decade and it is anticipated that the population will exceed 25,000 residents following the 2010 Census.

Local historic sites remain as a testament to the Town's history. They include a historic trail featuring two National Register buildings, two restored tavern stops, one-room schoolhouses, the Walker House, and the Old Burying Ground (See Section 4.6 for more on Burlington's historic sites).

3.3 POPULATION CHARACTERISTICS

Burlington is a densely populated suburb consisting of predominantly middle to middle-upper class residents employed in white collar work. The ratio of jobs to working residents has risen since the recession year of 2002 from around 2.3 to around 2.5, which is one of the highest among Metropolitan Area Planning Council (MAPC) communities. With more than two part-time or full-time jobs for every working resident, Burlington represents an important job center for the region that "imports" workers from many other communities.

Adults over forty now compose more than half of Burlington's population, with significant increases in those aged 70 or more. However, most of the recreation activities are geared towards children. Although recreational activities for children will continue to be essential, Burlington must shift some focus toward adult recreation and the aging population. More activities are needed which address family recreation and adults only recreation. New activities in this category will also accommodate the thousands of workers who commute to Burlington every day.

School-aged children, whose population has risen slightly over the past decade, must continue to have access to recreation and open space facilities to meet the demand, and there has been a large increase in

¹ Department of Housing and Community Development website, accessed at www.mass.gov/dhcd on 12/07/04.

youth sports participation over the past several years. Additionally, it is crucial that the elderly population has access to more facilities that offer easy navigation, handicapped accessibility, safety, and areas for rest/relaxation/sitting. Not only do we need to address housing needs for this population, but we also must provide a community that encourages activity as people age.

Two areas in Burlington are identified as having Environmental Justice (EJ) populations with a proportion of foreign born residents exceeding 25%. These are area A (the western EJ population), off Middlesex Turnpike and Terrace Hall Avenue (primarily centered around the Lord Baron Apartments), and area B (the eastern EJ population), bordered on the south by Route 95 in the vicinity of Peach Orchard Road (primarily centered around the Kimball Woods/Kimball Court multifamily housing complex straddling the Woburn city line). Area A has a total population of 2,143 persons. The proportion of foreign born individuals in this area is 34.92%; the household income in this area is \$70,033 annually, and just over 93% of residents speak English. The next most commonly spoken languages are a collection of Indo European languages, Gujarati, Hindi, Tamil, Telugu, and Kannada. Area B has a total population of 2,400 persons. The proportion of foreign born individuals in this area is 30.63%; the household income is \$61,510 annually, and just over 97% of residents speak English. As in Area A, next most commonly spoken languages are the Indo European languages of Gujarati, Hindi, Tamil, Telugu, and Kannada. In general, the households in these two Environmental Justice areas earn near the median household income for Burlington residents and do not disproportionately bear the burden of proximity to contaminated sites.

3.3.1 POPULATION TRENDS

Burlington began as a small agricultural community, but with the construction of Route 128 the Town's population burst, quadrupling over fifteen years from approximately 5,000 residents in 1955 to more than 20,000 residents in 1970.² In 1975, Burlington had its highest number of residents at 24,374. For the next thirty years, the number had slightly decreased and held steady at approximately 23,000 individuals. A slight increase has occurred over the past five years, primarily due to an increase in multifamily housing stock.

The median age of residents increased in the 1990's from 24 to 35.6 years, and the US Census Bureau now lists it at 38.5 years, somewhat higher than the metro-Boston median of 35 years.³

Figure 1: Burlington's Population Change 2000 – 2010

Age Group	2000	2010	% Change
0-9	2931	2703	-7.8%
10-19	2833	2987	5.4%
20-29	2500	2644	5.8%
30-39	3624	2950	-18.6%
40-49	3378	3660	8.3%
50-59	2905	3220	10.8%
60-69	2325	2546	9.5%
70-79	1398	1844	31.9%
80-89	417	922	121.1%
90-109	75	133	77.3%
Unknown	745	912	22.4%
Total	23,131	24,521	6.0%

Source: Town Clerk Annual Census

² Department of Housing and Community Development (2004 Burlington) website accessed at www.mass.gov/dhcd/iprofile0.48.pdf on 12/07/04.

³ Metropolitan Area Planning Council (MAPC) (2004) Comprehensive Economic Development Strategy, submitted to the Economic Development Administration.

Future trends overall show an aging population in Burlington. According to the Massachusetts Institute for Social and Economic Research (MISER) population statistics, there was a 39% increase in residents 50 years and older from 1990 to 2000. Local statistics reflect a 22% increase from 2000 to 2010 and it is projected that these numbers will only continue to grow as the baby boomer generation ages.⁴ By 2020 these numbers are expected to increase another twenty percent.

Conversely, population numbers for residents between the ages of 15 and 34 continue to dramatically decrease. It can be deduced from the population statistics that Burlington is becoming less desirable to young adults between the ages of 20 to 40. This may be due to a combination of factors including the cost of living, desire to live in a younger, urban environment, or a lack of recreation to support such a demographic. The previous observation of out-migration of 55 to 64 year olds may have slowed due the diversification of housing stock to provide more options for retirement housing in Burlington.

The population of school aged children is commonly cyclical, but has been relatively steady over the past decade. School enrollment numbers are expected to reflect a small short term increase as a result of the growing housing stock. However, long term trends reflect a continued decrease in the age groups commonly associated with parenting, and projections to the year 2020 calculate a decline in school aged children (see Figure 2).

Disability information is also vital when considering open space needs. As of the year 2000, 9.8% of Burlington's population between the ages of 21 and 64 had disabilities. Of the burgeoning segment of residents 65 years and older, 38% were listed as disabled.

On the whole, the majority of Burlington's population is between the ages of 20 and 64 (52%). Conservation and Recreation programs must provide for this young to middle aged adult population. However, Burlington must be proactive in preparing for the growing number of elderly in town, which also involves allowing for the handicapped accessibility and usability of town open space and recreation.

Burlington has seen a rising growth in persons of Indian and Arabic decent. The concentration of Indian-born residents in two neighborhoods, described earlier in this document, places Burlington as one of the 109 Environmental Justice communities within the Commonwealth, wherein that population meets two of the four criteria for Environmental Justice:

- 25% or more of the residents are minority and;
- 25% or more of the residents are foreign-born.

It is anticipated that this minority population will continue to see growth. The Town has made accommodation for this growth including hiring an interpreter in the Council on Aging who is able to serve as interpreter to the growing Indian population. In addition, impacts to recreation include increasing demand for sports like cricket, and not necessarily related to any particular population, lacrosse is also gaining in popularity. The Recreation Department has included consideration of these sports in sizing multipurpose fields around town.

⁴ Massachusetts Institute for Social and Economic Research (MISER), online database accessed at www.umass.edu/miser in November 2004.

Burlington has predominantly single-family detached homes, with 96 percent of the households owning one or more cars. The average household size is 2.76 people, and roughly 77% of all households are family households. Thirty-two percent of these have children under the age of 18. Only 23% of the town is non-family households, 65% of which are married couples.

MISER has predicted an overall decrease in Burlington's population, based upon current zoning and the trend toward smaller households and families. However, the Town has taken steps to meet the needs of its aging population. More than 1000 units of multifamily housing have been constructed or approved over the past decade and this will have some impact on the population.

3.3.2 DENSITY

The population density per square mile of land in Burlington is 2,064, a number that since 1970 has fluctuated by only $\pm 1\%$. The housing density is 808 units per square mile, with roughly 46% of total land used for single or multi-family residential properties. Of the remaining land, 17.1% is commercial or industrial; and 36.7% is forestry, agricultural, wetland or open lands.

Figure 2 Burlington Population Projection 2000 – 2020				
Age Group	2000	2010 Projection	2020 Projection	% Change 2000 - 2020
Under 5	1,575	1,206	961	-39.0%
5-9	1,491	1,205	960	-35.6%
10-14	1,512	1,636	1,253	-17.1%
15-19	1,226	1,317	1,063	-13.3%
20-24	1,035	1,198	1,298	25.4%
25-34	3,218	2,000	2,229	-30.7%
35-44	3,886	2,981	1,886	-52.0%
45-54	3,205	3,554	2,732	-14.8%
55-64	2,554	2,757	3,084	20.8%
65-74	2,103	1,963	2,154	2.4%
75 +	1,071	1,815	2,062	92.5%
Total	22,876	21,632	19,662	-14.0%

As Burlington is a major employment destination, 33,000 local company employees commute here every day.⁵ All total, a range of 70,000 to 100,000 people are in Burlington on a typical day including residents, workers, and customers of local businesses, and this number is estimated to rise to 150,000 people during the month of November.

The National Recreation and Park Association (NRPA) recommends each town have a minimum of 6.25 acres to 10.5 acres of developed open space per 1,000 people.⁶ Burlington is currently under this minimum with 4.38 acres per 1,000 people. This number does not include Mary Cummings Park / The City of Boston Property and The Landlocked Forest / Parcel, which are not currently considered permanently protected lands, although both are considered Article 97 land.

The MAPC identified the need for mixed-use buildings for the center of town to improve usability and create an atmosphere of a “pedestrian-friendly village reminiscent of a traditional downtown retail district”. They also recommended the Town Common’s historical character remain intact and in good condition, including the Marion Tavern at Grandview Farm (see Section 4.6). Mixed-used developments were also suggested for other Town locations including the Quinn Perkins site (see Section 3.4 for more

⁵ 5000 of these are Burlington residents.

⁶ According to NRPA’s 1996 publication of Parks, Recreation, Open Space and Greenway Guidelines, the NRPA has shifted away from promoting a fixed standard of recommended parkland. They now advise that their minimum recommendations be taken into consideration when planning, but that each community implement what the citizens determine is best.

information on this site). However, Town Center initiatives and other mixed-use developments are not anticipated to be large enough to significantly impact Burlington's density.

3.3.3 RESIDENTS' INCOME

In 2000, Burlington's median family income was \$82,072, with an income per capita of \$30,732. Residents predominantly fall into the middle to upper class income categories, with 78% of families earning more than \$50,000 per year (see Figure 3). However, an estimated 29% of Burlington households, or about 2,400, have incomes below 80% of the regional median family income (see Figure 4).⁷ This is considered "moderate income" and is the level that qualifies for affordable housing. Of these households, almost 1,400 have incomes below 50% of the median, considered "low income." Middle-income households – those with incomes between 80% and 150% of the median – make up 38% of the Town's households, while upper-income households constitute about 33%.

Figure 4

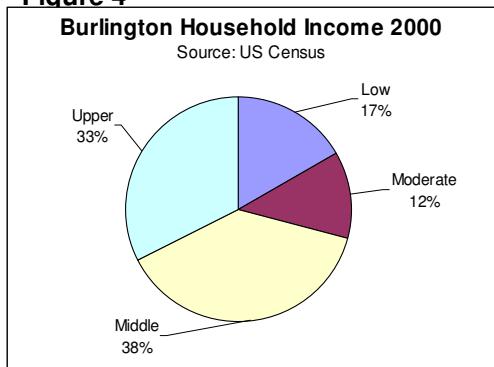


Figure 3
Family Income Levels in Burlington

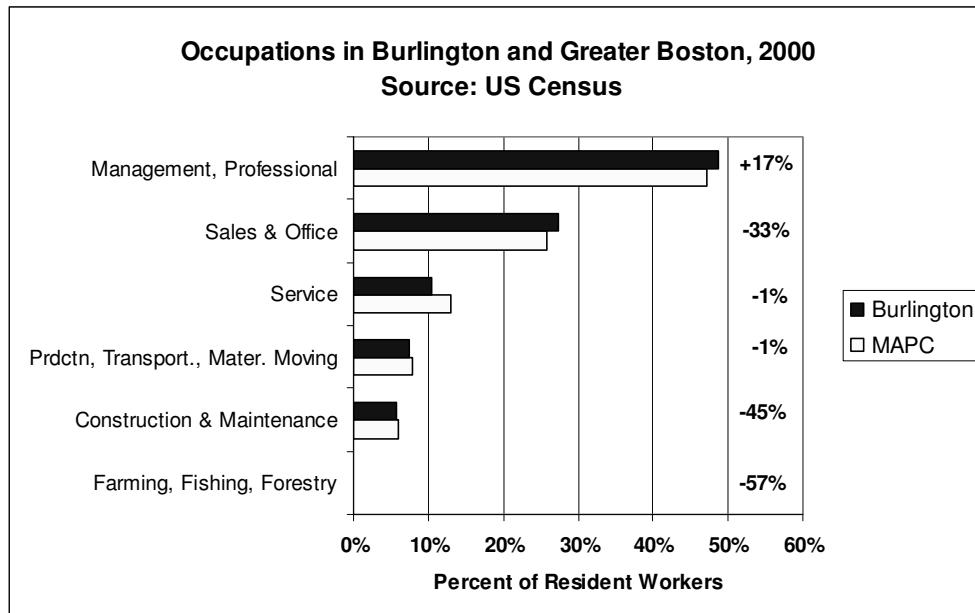
Families	Number	Percent
Less than \$10,000	71	1.1
\$10,000 to \$14,999	47	0.7
\$15,000 to \$24,999	256	4.0
\$25,000 to \$34,999	387	6.0
\$35,000 to \$49,999	653	10.2
\$50,000 to \$74,999	1,344	20.9
\$75,000 to \$99,999	1,399	21.8
\$100,000 to \$149,999	1,471	22.9
\$150,000 to \$199,999	486	7.6
\$200,000 or more	314	4.9
Total	6,428	100.0

Source: 2000 US Census

The occupational profile of Burlington residents (Figure 5) closely mirrors that of the metropolitan region, with the 2000 census showing the greatest number of residents in managerial and professional occupations, followed by sales and office work. The proportion of Burlington workers in managerial and professional occupations is slightly higher than the region's at 49%, and in fact was the only category to grow in Burlington. As of the year 2000, all other categories declined in number and are below the regional proportion. This workforce profile is a prime illustration of the national trend away from occupations involved in producing goods and toward 'knowledge-based' jobs.

⁷ This estimated breakdown does not adjust for family size. Cut-offs used in chart are based on the U.S. HUD regional median income for a family of four for the year 2000 applied to the Census income distribution for Burlington. Low income (50% of median) = \$32,750; moderate income (80% of median) = \$50,200; middle (81%-150%) = \$98,250; upper income (over 150%) = over \$98,251.

Figure 5



The growth of managerial and professional occupations accompanies rising educational levels. While Burlington's population over age 25 increased by 6% in the 1990s, the number having a college degree jumped by 31%. Burlington residents are slightly more likely to have a college degree (43% of residents, compared to 41% for the region), although the percentage with advanced degrees is lower (note that the metropolitan Boston work force is one of the most highly educated in the U.S.). The number of adults not having completed high school fell sharply in Burlington.

Burlington residents have been relatively successful in the employment market in recent decades, with annual unemployment having consistently stayed roughly a percentage point below the annual statewide rate since 1985. Additionally, the number of Burlington residents who lived in poverty fell by 40% to 434 in the 1990s, representing 1.9% of the Town's population. However, high demand and limited supply have cut vacancy rates and forced up the costs of both owning and renting a home throughout eastern Massachusetts. As a result, Burlington is experiencing these effects, making it difficult for many to afford to move to or remain in the town.

3.3.4 MAJOR INDUSTRIES, EMPLOYERS AND EMPLOYMENT TRENDS

Burlington is commonly known as a shopping and entertainment destination, with the Burlington Mall and surrounding stores drawing visitors from beyond the Town's borders. Yet its prime location at the junction of Route 128 and 3, and its large office and industrial parks, also make Burlington one of the principal economic centers of the region.

As mentioned, approximately 37,000 workers commute daily to their jobs in Burlington. The Town has a diverse mix of occupations that generally pay 20% more than the regional average. The largest employment sectors are information technology, health care, retail, manufacturing and wholesale trade. Below is a list of the top employers, most of which are clustered in the southern section of Burlington along Routes 128 and 3. More specifically, they are located within one-half mile of either side of Route 128 and one-half mile to the east of Route 3.

None of these major employers contributes to the open space in Burlington. The Town of Burlington does have an agreement with Mitre Corporation, a Bedford company whose land extends into Burlington, to use three of their baseball/softball fields. In exchange, these fields are maintained by the Burlington Recreation Department. Use of these fields will be temporarily unavailable during construction of a road, the “Mitre link.” Construction began in 2010 after several years of delay. Mitre has already constructed one new field, but replacement of the other fields is not expected to begin until 2011 or 2012.

The number of jobs in town rose to over 39,000 in 2000 before declining to 36,000 in the recession year of 2002. State employment statistics show that the number rose above 38,000 through the start of 2009, and fell slightly through the year. There remain some vacant commercial buildings due to the post-September 11th economy.

Figure 6
Major Employers in Burlington*

Company	Address	# of Employees
Lahey Clinic	41 and 31 Mall Road 63 South Avenue	3500
Oracle/Sun Microsystems	10 Van de Graaff Drive and Network Drive	2550
Siemens-Nixdorf	200 Wheeler Road 24 New England Executive Park	1500
Town of Burlington	Various locations	800
Avid	Network Drive	700
Raytheon	7 Van de Graaff Drive	600
Burlington Mall	Corner of Middlesex Turnpike & Burlington Mall Road	550
Nuance	Wall Street and Wayside Road	500
FAA	12 & 16 New England Executive Park	385
Lightbridge	30 Corporate Drive	300

**Includes only companies with 300 or more employees
Planning Department data*

3.4 GROWTH AND DEVELOPMENT PATTERNS

3.4.1 PATTERNS AND TRENDS

Transportation corridors have been the defining factor for much of Burlington's recent development. Pre-1950's, Burlington was shielded from the growth seen in neighboring towns because railroad extensions bypassed the community. Any residential development that did occur clustered close to surface roads, with subdivision eventually extending from these roads. However, the construction of Routes 128 and 3 greatly magnified this pattern, as the town evolved from a small agricultural community to a thriving commercial suburb.

Burlington's accessibility to Boston, Lowell, and surrounding suburbs continues to create development demands, both residential and commercial – a fact evident as Burlington now approaches build-out. Historically the housing stock in Burlington has been predominately single family dwellings. As the population has been aging in place, demand has been rising for alternative housing types such as multifamily housing and smaller housing units, of which Burlington had been in short supply. Several rezonings for multifamily housing projects have been approved over the past decade, creating approximately 1000 rental and for sale units, diversifying the housing stock to provide more options (and price ranges) with some providing specific preference for Burlington seniors. It remains anticipated that more senior care facilities will be needed, as well as housing for first time buyers, but the land available to accommodate such future trends is limited.

Currently Burlington is not rezoning land for future commercial use, but rather re-using existing properties. In other words, future commercial development will take place at previously disturbed lands. With this in mind, the Burlington Planning Department predicts that retail, restaurants, biotechnology and medical tools, and high technology industries will experience the most growth in the future.

Several mixed use rezonings have been approved since the last edition of the Open Space & Recreation Plan, expanding the opportunities for commercial growth. Northwest Park, a 1950's and 1960's era industrial and office park comprised of about 1.4 million sq.ft. in 40 buildings on 128 acres, has been rezoned to accommodate a rebirth into a mixed use village. This rezoning allows for development of an anticipated 2+ million sq.ft. of office space, 600,000 sq.ft. of retail and entertainment space, and 300 housing units. Public space (not necessarily open space) will be created within the future village, where there is essentially none today. The Nordblom Company also committed to substantial drainage improvements to achieve improved water quality from site runoff. The Gutierrez Company received approval to demolish the two remaining buildings from the former M/A-Com complex on South Avenue, and to create a small mixed use office/restaurant/retail complex, targeted at the biotechnology industry to become an anchor use. The New England Executive Park also received approval to grow from 1.1 million sq.ft. to 1.5 million sq.ft., with limited ability to introduce accessory restaurant, retail, and service uses.

Mary Cummings Park / The City of Boston Property and The Landlocked Forest / Parcel are the two remaining significant green spaces potentially threatened by development in Burlington (see also Section 5.2.4). These parcels have some legal roadblocks to their development but not enough to alleviate concern. There is also one remaining active farm left in the town, which is given some protection from development pressures by MGL Chapter 61A. These valuable open spaces may be at risk as Burlington approaches build-out. From 1951 to 1981 alone, forested land in Burlington decreased by 59% from 4,423 acres to 1,807 acres. This number has continued to decrease and it is necessary to protect what remains.

3.4.2 INFRASTRUCTURE

TRANSPORTATION SYSTEMS

In addition to Route 128 and Route 3, Route 93 and Route 495 are in close proximity to Burlington. Interstate 93 connects Boston and New Hampshire and intersects Route 128 in the neighboring city of Woburn. Interstate 495 lies roughly 15 minutes north of Route 128 via Route 3. Additionally, Route 3A, one of the main surface arterial roads, runs through the town in a north-south direction. Route 62, another major road, runs east-west through the northern section of Burlington. The combination of these routes makes Burlington easily accessible by major highways from almost all directions.

Burlington's proximity and access to Boston allows it to function as a bedroom community. Like many outlying suburbs of Boston, most residents unfortunately rely on a car for transport to surrounding localities because the public rail system is insufficient. Bus service through the Massachusetts Bay Transportation Authority (MBTA) connects the town to 78 other municipalities. Two bus routes provided by the Lowell Regional Transit Authority (LRTA) provide additional access to and from Burlington to points north. Passenger commuter rail service can be accessed in the neighboring communities of Wilmington and Woburn. The MBTA Red Line subway can be accessed from local bus routes to Alewife Station in Cambridge.

Two options for air travel are also accessible from Burlington. Logan Airport in Boston is a 30 minute drive or is accessible by public and private shuttle services. Closer to home is L.G. Hanscom Field, a reliever airport located 9 miles away in Bedford, which offers limited commercial services.

Within its borders, Burlington has its own shuttle bus service, Burlington Public Transport, which runs six routes throughout town. There are few neighborhood shops in Burlington, so most residents opt to drive between the residential areas in the northern part of town and the commercial areas in the southern and western parts of town.

Non-motorized transportation is another option in town, although it has not reached its potential. Many main and secondary streets are lined with sidewalks, but the sidewalk network is inconsistent, particularly on roads built before the 1990's when sidewalks were not required. Officials continue to strive to install sidewalks on these roads to facilitate pedestrian movements throughout town.

The Burlington Bike Path Committee is also working to create a network of 17.8 miles of on and off-road bike paths throughout the Town of Burlington. It is anticipated that this project will ease in the inflow of traffic by providing safe and accessible bikeways throughout Burlington with connections to key Town attractions. The Committee also hopes to link Burlington to the surrounding towns of Bedford, Lexington, and Billerica. This project has been divided into three phases, and the Town is in the process of applying for a multi-million dollar grant to fund its implementation. Grant proposals to fund this project have been partly awarded, but significant local matching dollars are needed, along with design funds. As funds are not presently available, limited progress on certain bike path connections is anticipated in the near future.

WATER SUPPLY SYSTEMS

The water system in Burlington includes three finished water storage tanks with six million gallons of capacity, roughly 130 miles of distribution piping, one river diversion station with a piping capacity of

eight million gallons per day (mgd), one raw water reservoir with a capacity of 513 million gallons, one surface water treatment facility, one groundwater treatment facility, and seven gravel packed wells. These sources produced approximately 1.2 billion gallons in 2010, with a daily average of 2.75 mgd and a maximum day of 6.0 million gallons. While this daily average has remained constant over recent years, the major consumer has changed from commercial to residential.⁸ To meet this water demand, generally in the summer 60% of the water comes from the reservoir and 40% is supplied through the Vine Brook wells. In the winter 80% comes from the wells and 20% from the reservoir.

The Town of Burlington has produced water for its residents since 1949. Yet the land area that supplies the primary recharge for the wells was not identified until after much of the commercial and industrial area was built over the recharge area. Since then, protective measures have been taken to regulate the operations adjacent to the aquifer.

SEWER SERVICE

Burlington's sewer system, a relatively old one, has a 9.2 million gallons per day (mgd) capacity with a daily average of roughly 3.76 mgd discharged. The system runs from Burlington, through Woburn, Winchester, Medford, Everett, Chelsea, and onto Deer Island; and is managed by the Mass Water Resources Authority (MWRA). A recent upgrade in Winchester has added capacity to the existing system. The Winchester portion of this line still provides less capacity than needed, and during times of high rainfall this causes an overflow problem in the system. Burlington has a major sewer upgrade project scheduled to commence in 2011 that will eliminate the aging sewer line that runs through the Great Meadow well field area. In the last few years, various new methods have been employed to deal with stormwater in the sewers. Woburn and Burlington still must divert sewage from the system during storm events, which in Burlington's case means the discharge of sewage into Vine Brook. Due to this situation, the Department of Environmental Protection (DEP) has placed an Administrative Consent Order on the Town which requires rehabilitation measures when an increase in sewerage is proposed.

This DEP moratorium affects town development by requiring that five (5) parts of infiltration/inflow be removed for every additional one (1) gallon of increased sewage. For example in a four-bedroom house, a total of 440 gallons per day of sewage is estimated to be generated (110 gallons per bedroom). In order to comply with DEP requirements, the developer must rehab infiltration/inflow sources in the sewer system to remove 5 times the 440 gallons (2200 gallons) of infiltration/inflow or pay a fee to have the work done. The quantity of infiltration/inflow removed and the quality of the work for all projects requires DEP approval.

3.4.3 LONG-TERM DEVELOPMENT PATTERNS

The current local land use zoning law in Burlington is half acre zoning (20,000 square feet) residential single family. Recent residential developments in town have been small, over the last ten years, averaging two subdivisions per year of roughly two to three lots each.

The impact of future subdivisions and infrastructure expansions on existing open space will be minimal because both residential and commercial development is already nearing build-out. Additionally any new subdivisions would have minimal impact of town infrastructure because the roads and sewers already

⁸ Town of Burlington (2010) Annual Water Quality Report: Water Testing Performed in 2009 (http://www.burlington.org/dpw/water/Burlington_Web.pdf)

extend to all parts of town. Thus, when maximum build-out is reached, there will not be a great deal of change from the current state. As such, future subdivisions will cause only minor increases in traffic; and the total population will increase by no more than 2,000 people. Rezonings granted since the last edition of the Open Space & Recreation Plan have altered the build-out capacity of Burlington. Provisions for multifamily housing in the Town Center and Planned Development Districts (PDD) will enable both residential and commercial growth and may lead to a higher demand for use of existing recreational facilities and more users of open space. In fact, the PDD process often results in setting some land aside as permanent open space.

Under current zoning, the Burlington Planning Department suggests a residential build-out number of 10,200 households. The 2004 Build-out analysis performed by the Massachusetts Executive Office of Environmental Affairs predicted only 319 additional households could be built. As of April 2010 there were roughly 9,701 residential households, an increase of 1000 units over the past 5 years. This change in predicted build-out is due to several rezonings approved by Town Meeting over the past decade, part of a conscious effort to diversify the Town's housing stock.

Housing built or approved since 2005:

Figure 7 Scheduled and Proposed Subdivisions/Housing Developments			
Project	# of Units	Size	Comments
Kimball Woods	256 units	31 acres	Only two acres of which is developed
Arborpoint/Seven Springs	425 units	70 acres	40 acres developed / 30 acres open space / 350 units built to date (2010)
Grandview Farm	42 Units	2 acres	Age restricted condominiums off Center Street
Shamrock Drive	4 lots	3.3 acres	Subdivision off Center Street (2005)
Woodland Farms	8 lots	4.8 acres	Subdivision off Muller Road (2007)
Village at Burlington Common	8 units	0.5 acres	Multifamily in town center at 141 Cambridge Street (2007)
Hillview	7 units	0.5 acres	Multifamily in town center at 129 Cambridge Street (2007)
Winn Street Commons	12 Units	1.0 acre	Multifamily in town center at 262 Winn Street (2008)
Sheighla Drive	3 lots	4.6 acres	Subdivision off Maryvale Road (2008)
Burlington Heights	37 units	3 acres	Multifamily in Town Center at 235-245 Cambridge Street (2009)
Oakridge at Burlington	19 Units	2.0 acres	Multifamily in Town Center off Skilton Lane and Murray Avenue (2009)
Northwest Park PDD	300 units	TBD	Housing units permitted as part of mixed use redevelopment – not built
Muller Road Cluster Development	TBD	15 acres	Cluster development proposal pending approval with Planning Board

Recent rezoning decisions have changed the commercial build-out scenario from 15 million sq.ft. to 18 million sq.ft. Currently 14 million sq.ft. of commercial and industrial space (retail, industrial, and office space) exists. Another two million is either under construction or permitted but not built, and a further two million exists for potential use. The 2004 Executive Office of Environmental Affairs (EOEA) build-out data had predicted one-half million square feet of additional commercial development. This analysis differed from Burlington's projections because it was based on vacant land rather than partially developed land and did not anticipate zoning changes.

There are two zoning bylaws of interest in Burlington that may positively influence long-term open space and recreation planning:

Section 11.6.0 of the Town Zoning Bylaw “Open Space Residential Development”

The purpose of this bylaw section is to encourage the preservation of common land for conservation, agriculture, open space, and recreational use and to provide increased opportunities for affordable housing. In addition, it is meant to help preserve historical and archeological resources, and protect existing and potential municipal water supply by promoting more sensible placement of buildings through reduced setback and increased buffer requirements. The bylaw can be used for any residential development that meets the minimum requirements, and works through a special permit review and issuance process. This provision was one of the amendments adopted in 1988 in response to the affordable housing crisis of that decade.

Open space residential development is also commonly called “cluster” development, and the terms are frequently used interchangeably. The basic principle of such development is to group new homes onto part of the development parcel, so that the remainder can be preserved as undeveloped open space. Traditional zoning and subdivision requires homogeneous spacing of buildings, and usually results in greater disturbance to the property as it is developed. Clustering buildings reduces the amount of vegetation to be cut, allows for greater buffers to existing neighborhoods or natural features, and has fewer roads and other utilities to maintain.

Under Burlington's bylaw, 40% of the land area must be set aside as permanent open space for cluster development. The Town of Burlington has seen this principle used only twice – once in a development known as Vine Brook Farms (sometimes referred to as “Cranberry Estates”), which is a cluster of 25 single family dwellings on a 16 acre parcel, and also in a development called Beacon Woods, a 26-unit town house condominium project on 12 acres.

The reason for the limited use of this provision is that it requires a ten (10) acre minimum lot size, which today is neither practical nor effective because there are simply too few 10-acre parcels left in the town. The only individual parcels of this size are the Burlington Housing Authority parcel on Adams Street and the Town-owned Wildwood School site. Since the last edition of the Open Space & Recreation Plan, the Wildwood School has been demolished and construction of new playing fields occurred. There are only three other opportunities where 10 acres can be amassed by consolidation of parcels – the Quinn Perkins gravel pit combined with some Town-owned land on Adams Street, the former Thorstensen gravel pit on Muller Road, and several lots in the Saw Mill area in multiple ownership.

The 1997 Housing Element of the Master Plan and the 2004 Community Development Plan both recommend that the minimum parcel size be reduced for open space developments. This recommendation recognizes that there are few undeveloped 10-acre parcels. The Planning Board has initiated discussion to

reduce the minimum land area to 3-acre or 5-acre parcels. As the few remaining parcels come forward for possible development, this zoning tool would give the Planning Board the ability to consider options that are more beneficial to the Town and the environment. The Planning Board did conduct a series of hearings on this proposed reduction in minimum lot size, but concluded without bringing any proposal forward to Town Meeting.

Section 12.1.0 of the Town Zoning Bylaw “Planned Development District” (PDD)

This zoning tool allows for mixed use projects. Part of the bylaw’s objective is to let development standards be tailored in a more site-specific manner, and to allow the town to evaluate impacts in a more comprehensive way. The process requires action by Town Meeting on a concept plan, followed by detailed Planning Board review. There are no pre-determined regulations regarding density or use, rather these are negotiated so that the performance standards can be tailored to the natural features of the property.

Three recent applications using this bylaw resulted in permanent protection of notable open space:

- The Wall Street PDD set aside 6.4 acres of endangered species habitat, abutting the existing Little Brook Conservation Area.
- The Grandview Farm PDD set aside 1.0 acre of open space adjacent to the historic Grandview Farm, also known as Marion Tavern, located adjacent to the Town Common.
- The Arborpoint PDD set aside 30 acres of open space, encompassing a mixture of wetland and upland areas.

In addition to open space goals, these projects also achieved local goals of affordable housing. Grandview Farm also achieved an historic preservation goal with the Town gaining ownership of the Marion Tavern, and Arborpoint provided an important segment of the bicycle path network, fostering the goal of a route connecting to the regional Minuteman Bicycle Trail in the neighboring town of Lexington.

More recent PDD’s include Northwest Park, South Avenue and 90 Middlesex Turnpike. Each of these involves demolition of existing commercial facilities and redevelopment of the sites. While no notable open space is necessarily created, each does reduce impervious surface area and improve the quality of water runoff in areas contributing to the Town’s water supply. The PDD should continue to be used as a tool to achieve “smart growth” initiatives being promoted by the current state administration in addition to locally identified objectives.

4.1 GEOLOGY, SOILS, AND TOPOGRAPHY

Burlington's total land area is 11.88 square miles, or approximately 7,577 acres. The terrain is undulating, with the lowest elevation at about 100 feet above sea level (the southeast border of town between Cambridge and Winn Streets) and the highest elevation approximately 300 feet above sea level (Greenleaf Mountain).

Geologically, Burlington is located along the Bloody Bluff Fault which separates two very different landmasses called the Nashoba zone (to the west) and the Milford-Dedham zone (to the east). The fault passes up from Connecticut and out to the north shore. The landmass to the east of the fault was driven under the landmass to the west when they collided during the Paleozoic era. Both are believed to be derived from the African plate, which then became attached to the North American continent after colliding.

A large block of land was caught in this collision and crushed, forming the Burlington Mylonite Zone. Movement along the Bloody Bluff fault is from northwest to southeast. The Burlington Mylonite Zone passes through the eastern part of town, and may be up to 5 km wide in places. Roughly 1.5 km of that width is the direct result of the original action along the Bloody Bluff Fault.

Like most of the faults in New England, the Bloody Bluff Fault is no longer located at the edge of two tectonic plates. This greatly decreases the likelihood of a severe earthquake. However, according to a publication by the Massachusetts Emergency Management Agency, some old New England faults may be reactivated by stresses applied to moving plates. Although there is not enough data to tell which faults are active, the publication warns:

“The probability of a damaging earthquake occurring somewhere in New England are small by worldwide standards, but they are measurable. The chances that a potentially damaging earthquake (Magnitude 5 or greater on the Richter Scale) will occur somewhere in New England in a given year are about 1 in 20.”

Since Burlington's pattern of development is well established, the above-mentioned factors will not play a major role in the future protection of open space. Also, the topography of the land does not affect the wastewater, but at well numbers 9 and 6 there is an organically bound iron in the soil that is very expensive to remove. As such these wells have been shut down.

The attached Generalized Soils Map (Map 4) shows the locations of Burlington's soil types grouped together by development limitations. In its Middlesex County Massachusetts Interim Soil Survey Report, the Soil Conservation Service rates each soil type according to its limitations for several kinds of development. For the purposes of open space planning, the limitations on dwellings and commercial buildings seemed the most relevant, and these were used in defining the categories shown on the map. A slight limitation indicates that the soil is generally favorable for development; a moderate limitation indicates that the soil is unfavorable, but special planning and design can overcome the shortfalls; and a severe limitation indicates that there will be a major increase in construction costs, design, or maintenance to develop the area. Knowing that an area's soils severely limit development possibilities may make the

area easier to protect, but it is not always a sufficient reason for protection. A table showing soil types by development limitations is shown in Appendix 3.

Most of the prime agricultural soils have already been built upon, and the establishment of new farms is highly unlikely. Prime agricultural soils are rare – with simply a few isolated pockets along the southern borders of the town and one large swathe through the center of town.

Additionally, the largest areas with severe development limitations are already either developed or protected - a trend that indicates that remaining unprotected land will be developed if the town continues to grow. As such, delaying the acquisition of land for open space and recreation purposes may erase the possibility of acquiring new land at all. Protected areas with severe limitations include the well fields south of Terrace Hall Avenue, the area north of Mill Pond, and the Little Brook Conservation area north of Mountain Road. Numerous areas with severe limitations have been built on or are in the process of being developed, indicating the shortage of developable lands with more favorable soils.

4.2 LANDSCAPE CHARACTER

Burlington's landscape character varies, fluctuating from the highly commercial southern section of town, to the mainly single family residential area in the northern part. One of the most important open-space features overall is the Town Common. This is a quiet landscaped park, regularly used for walking and playing games, as well as for more organized activities such as the summer movies and concerts sponsored by the Recreation Department. With the Town Hall, the Police and Fire Departments, and the Post Office located on the Common, and the library a short distance away, the Common is the symbolic center of the Town. The northern part of the town is residential in character, with a few commercial pockets scattered throughout. These areas primarily consist of single-family homes, with a few multi-family housing developments providing an alternative residential setting.

The combination of residential neighborhoods and ready driving access to stores and transportation arteries has been one of Burlington's strongest drawing points. While many other towns in the area share the residential aspects of Burlington's character, few have its diversity of land use. The Town's recent planning endeavors have attempted to strike a balance between commercial/industrial land use and the community's residential character and quality of life, including the protection of open space.

4.3 WATER RESOURCES

4.3.1 WATERSHEDS

Burlington is located at the headwaters of three watersheds: Shawsheen River Basin (western Burlington); Ipswich River Basin (northeastern Burlington); and Mystic River Basin (southeastern Burlington) (see Map 6). Despite being at the headwaters of these three major watershed, Burlington lacks streams large enough to support water-based recreation activities. These three rivers are a shared resource with neighboring towns. The Ipswich River links 21 communities in Northern Massachusetts, and supplies water to 14 of these.⁹ However, rapid growth of surrounding communities is having a high impact on this water system, including increased pollution and excessive water demands (at times causing the river to run dry). The Ipswich River and several of its tributaries are listed as “impaired waters” by the

⁹ Ipswich River Watershed Association website <http://www.ipswichriver.org/river.html>.

Massachusetts Department of Environmental Protection (DEP), and it was also listed as the third most endangered river in America by American Rivers in 2003.¹⁰ Watershed associations created to protect these watersheds are the Shawsheen River Watershed Association, Ipswich River Watershed Association, and Mystic River Watershed Association.

Since 1990, the Town of Burlington Conservation Department has conducted an annual stream cleaning program during the summer months. Many town residents often overlook streams and wetlands until basements begin to flood. As such, these waterways are frequently seen as problem-causers rather than environmental assets, particularly by residents living in flood plains or flood prone areas. Thus, since 1990, the Burlington Conservation Department has carried out a summer stream management program designed to address this issue. The program's two main goals are to:

- Remove obstructions which may alter the streams' flow and exacerbate flooding
- Improve stream habitat by clearing the waterways of rubbish

While these goals are important, the Conservation Department also strives to achieve them with minimal environmental impact. The aim is to strike a balance between reducing the flood risk and sustaining an ecologically fit stream.

4.3.2 SURFACE WATER

Of the 88 acres of deep-water habitats in Burlington (excluding linear streams), the Mill Pond Reservoir accounts for slightly less than three-quarters. Ponds (including vernal pools), lakes and streams make up much of the remaining 28% of water bodies. While many small ponds in Burlington may be vernal pools, only fourteen have been certified as such in town. There is no state law protecting vernal pools unless they are both certified and located near or within a resource area protected by The Wetlands Protection Act. Since they are an important and threatened habitat for a number of endangered species, the Town plans to boost efforts toward vernal pool identification and certification, and to increase their protection under the local wetland bylaw.

The largest body of water in town is the Mill Pond reservoir, which was constructed through the installation of dams. The watershed for the reservoir is unusual because in addition to the naturally occurring watershed, water is pumped into the reservoir from the Shawsheen River located five miles away. The Mill Pond Reservoir is also one source of Burlington's drinking water. For additional information on the reservoirs contribution to the water supply see Section 3.4.2.

None of the non-reservoir water bodies in town are large enough to support recreational activities such as boating or swimming. The reservoir only has unpaved walking trails for recreational activity, as the Town is wary for it to become a recreational area because it is a water supply. Water-related recreation in Burlington is limited to nature watching and hiking near water, with some fishing.

4.3.3 AQUIFER RECHARGE AREA

The Burlington Water and Sewer Division maintains and operates ten (10) public water supply sources, all of which are located within the Shawsheen River basin. The watershed area for the Shawsheen, which

¹⁰ American Rivers (2003) America's Most Endangered Rivers of 2003, accessed at http://pa.lwv.org/wren/library_PDF/MostEndangeredRivers2003.pdf in November 2004.

is diverted to the Mill Pond Reservoir, is located in the towns of Bedford, Billerica, Burlington, Concord, Lexington, and Lincoln.¹¹ This water system includes 35.2 miles of intake infrastructure. The town has also added emergency connections to Bedford, Wilmington, and Woburn.

“Approximately 80% of the Zone II and combined watersheds consist of residential areas, of which a portion is served by private septic systems, with the remainder being served by municipal sewerage. If managed improperly, activities associated with residential areas can contribute to drinking water contamination from sources such as: septic systems, household hazardous materials, heating oil storage, and stormwater.”¹²

In 1978, well numbers 3, 4, 5, and 7 were shut down because of contamination. In 1986 the Town received funding to build a temporary treatment plant to treat well numbers 3, 4, and 5. Well number 7 is abandoned due to Trichloroethylene (TCE) contamination, and well numbers 6 and 9 are abandoned because of the presence of high levels of iron and manganese, and removal of these natural compounds to achieve drinking water standards is not financially feasible. A permanent water treatment plant was approved in 1996, which treats wells 1-5 and new wells 10 and 11. The Mill Pond Water Treatment Plant was expanded and upgraded in 2007.

Figure 8 Description of the Water Sources (Zone II # 279)		
Well/Source Name	Source ID#	Susceptibility
Groundwater Sources		
Terrace Hall Well #1	3048000-01G	High
Terrace Hall Well #2	3048000-02G	High
Middlesex Pike Well #3	3048000-05G	High
Middlesex Pike Well #4	3048000-07G	High
Middlesex Pike Well #5	3048000-08G	High
Lexington Well #10	3048000-11G	High
Lexington Well #11	3048000-12G	High
Surface Water Sources		
Shawsheen River	3048000-01S	High
Mill Pond Reservoir	3048000-02S	Moderate

Source: Mass DEP SWAP Report

4.3.4 FLOOD HAZARD AREA

Significant portions of Burlington are located in 100-year flood hazard areas, denoted as “Zone A” on the Federal Emergency Management Agency’s FIRM Flood Zones Map. Zone A relates to those parcels located in the 100-year flood plain that have a 1-in-100 chance in any given year of flooding.¹³ Specific areas in Town that fall into this category, and have the most flooding potential, include areas adjacent to Sawmill Brook from the Wilmington town line to Lucaya Circle and most areas along the entirety of Longmeadow Brook, Sandy Brook, and Vine Brook.

There are three zoning bylaws of interest in Burlington that may positively influence development trends with regards to water resources:

¹¹ Massachusetts Department of Environmental Protection (2003) Source Water Assessment and Protection (SWAP) Report for Burlington Water and Sewer Division, released 6/30/03, accessed at <http://www.mass.gov/dep/> on 11/23/04

¹² Massachusetts Department of Environmental Protection (2003) Source Water Assessment and Protection (SWAP) Report for Burlington Water and Sewer Division, released 6/30/03, accessed at <http://www.mass.gov/dep/> on 11/23/04.

¹³ Federal Emergency Management Agency (FEMA) (2005) U.S. Flood Hazard Areas Flood Data Map for Burlington, Massachusetts, accessed at <http://mapserver2.esri.com/cgi-bin/hazard.adol?z=&cgd=&c=burlington&st=Massachusetts&cd=g&s=0> in February 2005.

Section 8.1.0 of the Town Zoning Bylaw “100-Year Floodplain District”

The 100-year Floodplain District is an overlay zoning district meant to prevent development in the floodplain and reduce flood damage. Either the Planning Board or the Building Inspector enforces the provisions of this bylaw.

Section 8.3.0 of the Town Zoning Bylaw “Aquifer and Water Resources Districts”

The Aquifer and Water Resources are also overlay districts, but restrict certain land uses and limit impervious cover. These land areas provide recharge to the Town’s public water supply well. A number of activities are directly prohibited, while others may require a special permit from the Planning Board.

Section 8.2.0 of the Town Zoning Bylaw “Wetlands District”

The Wetlands District is also meant to prohibit or restrict certain land uses of wetland areas. It provides criteria for the Planning Board to consider separately from the jurisdiction the Conservation Commission has under Massachusetts General Law Chapter 131 Section 40 (Wetlands Protection Act). In order to build within this district, a special permit must be obtained from the Planning Board. However, zoned wetlands do not encompass all of the land areas that the Conservation Commission may determine to be wetlands.

4.3.5 WETLANDS

Roughly one-tenth of Burlington is composed of wetlands and deep water-bodies (see Map 6).

The table to the right lists the wetland types present in Burlington. Atlantic white cedar swamps also occur in Burlington, but are very uncommon. From these figures, it can be suggested that the evergreen wooded swamps, wet meadows and Atlantic white cedar swamps are most rare locally, and should receive special consideration on protection issues.

Estimated breakdown of wetland types in Burlington	
Burlington Wetland Types	Percentage
Deciduous wooded swamp	67%
Mixed types or complexes of wetland and water body	18%
Marshes	10%
Deciduous shrub wetlands	3%
Evergreen wooded swamps	1%
Wet meadows	1%

Burlington’s Wetland Bylaw (Article XIV) aims to protect the wetlands, water resources, and adjoining land areas in the Town of Burlington by controlling activities deemed by the Conservation Commission as likely to have a significant or cumulative effect upon those resource areas. While the Wetland bylaw mimics the Massachusetts Wetlands Protection Act in its protection of freshwater wetlands, rivers, streams, ponds, and lakes, as well as any land under those waters or bordering on them, from alteration; the bylaw also gives the Commission jurisdiction to protect an additional resource area – Land Subject to Flooding or Inundation.

Land Subject to Flooding or Inundation is an area of low-lying land that floods or serves as a ponding area for water. It is defined by the maximum extent of standing water in the area following a 100-year storm event. In contrast to the state Wetlands Protection Act, which requires that a wetland be hydrologically connected to either a creek, river, stream, pond or lake, or if it is isolated, that it be large

enough to confine at least a $\frac{1}{4}$ acre-feet of water to an average depth of six inches, Isolated Land Subject to Flooding or Inundation need only be 500 square feet in order to be jurisdictional. It does not have to border a water body.

The protection of Burlington's water resources is a prime concern of the community, prompting the creation of such bylaws designed to further protect water quality and prevent flooding, while also safeguarding certain aspects of Burlington's natural environment. Many open space acquisitions in the past have been related to water quality and wetlands protection, and these concerns should continue to be important factors.

The Wetlands Bylaw provides the Conservation Commission with two valuable enforcement tools that are not afforded to it by the Wetlands Protection Act: 1) the ability to hold performance bonds, and 2) the ability to impose fines.

Performance bonds are a proactive way for the Conservation Commission to encourage compliance with a permit. When issuing a permit for construction near a wetland, the Commission may require that an applicant submit a sum of money, to be held by the Commission, as a financial surety that conditions outlined in the permit will be adhered to. Upon the completion of the project, if no violations have occurred, the bond is returned to the applicant in full. If, however, the applicant did not comply with all of the standards in the permit, a portion, or all, of the bond will be forfeited.

Section 1.9 of the Wetlands Bylaw gives the Commission the authority to fine anyone who violates any of the provisions of the bylaw, or permit issued by the Commission. Fines may be issued up to \$300 per day per violation.

4.4 VEGETATION

Vegetation in Burlington is typical of many Massachusetts towns. A list of vegetation known to exist in Town is included in the Appendix 4. Although this list does not include species richness information, it provides a base for understanding the Town's vegetation. There are varying ecosystems which support the species mentioned in Appendix 4. In light of the fact that many vegetation types in Burlington are scarce due to abundant development, the large parcels of woodland, the few fields, and the rare wetland types are all ecosystems that should be seriously considered for protection through the future acquisition of open space.

4.4.1 FORESTS

Most of the forests in Burlington are second-growth forests with immature trees and full undergrowth. Such habitats provide shelter and food for wildlife, and the vegetation variety provides valuable opportunities for nature study. There are a small amount of mature forests in town, which are excellent places for hiking trails because of the clear understory. Conservation Areas with this kind of mature vegetation include Little Brook Conservation Area and Mill Pond Conservation Area which has some stands around the reservoir.

The largest protected woodland area in Town is the conservation land surrounding Mill Pond, which totals over 140 acres. Next in size are the 36 and 27-acre conservation areas at Little Brook and Sawmill Brook, respectively. Land entrusted to the City of Boston, which is somewhat protected by the terms of

the will entrusting it to the City, contains woodlands and open fields. The largest unprotected woodland in town is the 270-acre Landlocked Forest / Parcel located west of Route 3, which is Article 97 land, but not Conservation land. It is nearly entirely forested, except for an electrical transmission line easement which runs east-west through it.

4.4.2 FIELDS

There are very few fields left in Burlington that are not used for active recreation. Most of the land which was once farmed has either become forested or been developed. The one remaining active farm in Town, located at 82 Lexington Street, is a 7.09 acre parcel involved in the Chapter 61A program with the state. The largest remaining fields are on Mary Cummings Park / The City of Boston Property in the south part of Burlington, one of which is under negotiation to become a soccer field.

As field habitats continue to diminish, animals such as bluebirds that rely on these areas are finding it harder to locate essential habitat. Retaining both fields and forests in town will provide for greater biodiversity, particularly when they abut each other allowing animals to use the forest for cover while utilizing the fields as a food source. Fields can also provide scenic views and serve as a reminder of the agriculture that once was commonplace in Burlington. Increasingly, utility line corridors are becoming the modern day equivalent of fields, and while these are neither scenic nor agricultural, they do provide useful habitat.

4.4.3 WETLANDS

Burlington's wetlands are described in greater detail in Section 4.3.5 of this plan. Several kinds of wetlands are uncommon in Burlington and may deserve increased protection because of their rarity; including evergreen wooded swamps, wet meadows, and Atlantic white cedar swamps. The most common wetland type present in Burlington is the deciduous woody swamp, the canopy of which is typically dominated by Red Maple (*Acer rubrum*) with various other tree species present in lower densities, such as American Elm (*Ulmus Americana*), white pine (*Pinus strobus*), and eastern hemlock (*Tsuga canadensis*). The shrub layer of these wetlands is typically well developed and often features species such as sweet pepperbush (*Clethra alnifolia*), common winterberry (*Ilex verticillata*), highbush blueberry (*Vaccinium corymbosum*), northern arrow-wood (*Viburnum dentatum*), and speckled alder (*Alnus incana*). The understory of these deciduous swamps is often dominated by ferns, though can vary widely depending upon soil chemistry and sunlight availability. It is important to note that the Red Maple Swamps, of which Burlington has many, can function as important habitat for many vernal pool species in Massachusetts as many areas of these swamps flood seasonally and lack fish populations.

4.4.4 ENDANGERED SPECIES

Until 1993, the only endangered plant species in Burlington on file with the Natural Heritage and Endangered Species Program was from 1906 – the Lion's Foot (*Prenanthes serpentaria*), a member of the sunflower family.¹⁴ In 1993 another endangered vascular plant, the Variable Sedge (*Carex polymorpha*) was discovered in Burlington by the late Marylee Everett, a former Conservation Commissioner. This population is one of only two known to exist in Massachusetts and thus, for its protection, specific

¹⁴ Based solely on the 100 year old herbarium specimen, as a Lion's Foot sighting has not been reported since.

information regarding the plant's location is confidential. Because of its rarity, it is also currently a candidate for the Federal endangered species list.

4.4.5 PUBLIC SHADE TREES

In the Town of Burlington the DPW Superintendent acts as the Tree Warden. Since the Town does not have a Tree Department, the duties of the Tree Warden are limited to the protection of Shade Trees.

The Highway Division has a small budget for Tree Care which is used for safety pruning as well as removal of diseased trees. Although the department receives many requests for tree removals with reasons given such as "excessive leaves", none of these requests are granted unless the tree poses a safety issue or it is diseased.

4.5 FISHERIES AND WILDLIFE

Although much of Burlington has been developed, there is still a variety of fish and wildlife species found in the town. See Appendix 5 for a preliminary list of Burlington wildlife. This list was created by combining information from various sources including the 1996 and 2005 Open Space & Recreation Plans, professional reports of wildlife sightings, and sightings reported by residents and Town staff.

Two native wildlife species found on this inventory are also on the Massachusetts List of Threatened, Endangered and Special Concern Species. They are:

Taxonomic Group	Scientific Name	Common Name	State Rank	Most Recent Observation
Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	Special Concern	1994
Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	Special Concern	1998

4.5.1 FISH AND FISHING

Fishing has been allowed at the Mill Pond Reservoir for many years, and the Recreation Department stocks the water body with trout each spring. Fishing permits are required and may be purchased by Burlington residents only. Each spring the town sponsors a Kids' Fishing Derby and provides fishing equipment for rent at a nominal fee. The Mill Pond Reservoir is man-made and thus originally had no biological community. In an attempt to develop a biological community and stabilize the lake, it was stocked with 2000-3000 largemouth bass, and as mentioned is stocked periodically with a variety of trout species including brown trout and rainbow trout. Other species found there include sunfish, bluegills, pickerel, eels and perch.

Butterfield Pond, located on the Burlington-Lexington border, also contains some of the species found in the Reservoir. Additional areas throughout town where fish may be found include Vine Brook and the ponds at the Arborpoint development on Wheeler Road.

4.5.2 WILDLIFE AND HABITATS

There is a wide variety of wildlife found in Burlington. As Burlington becomes increasingly developed, care must be given to protecting and managing diverse habitat to support the wildlife population.

Prime habitat areas located in Town include three large forested areas: the Mill Pond Conservation Area, Mary Cummings Park / The City of Boston Property, and The Landlocked Forest / Parcel. These areas consist of mostly secondary growth forest, although some mature stands are scattered throughout town. Mary Cummings Park / The City of Boston Property also contains the largest field in town.

Additionally, Burlington has numerous small streams and wetlands. The largest protected wetland area is the well fields around Vine Brook in the southwestern portion of town. The only access to this area is via a trestle bridge, open to Town workers with limited public access, providing particularly good habitat for those species that do not adapt well to human interaction.

Burlington is also home to many vernal pools, a unique wetland type that does not contain water throughout the year, and therefore contains no fish. Certain species, including the wood frog, spotted salamander, and fairy shrimp, depend on vernal pools for reproduction and survival. It is a goal of the Town to work towards identifying and certifying more vernal pools in an effort to expand on environmental education opportunities and improve natural resources protection measures.

Roads and development have fragmented many of the habitats mentioned above. For example, although Mill Pond Conservation Area and the Sawmill Brook Conservation are within minutes of each other, Mill Street and the houses on either side of it separate the two properties. Most of the open space in Town is bounded by heavily traveled roads that effectively prevent movement between these lands. There are few wildlife corridors within town and those known corridors in Town are unprotected. However, Mary Cummings Park / The City of Boston Property borders protected open space in the City of Woburn known as Whispering Hill. Additionally, The Landlocked Forest / Parcel is adjacent to protected open space in Lexington and there is an effort to connect more green spaces along the West Lexington Greenway.

The most extensive wildlife corridors known in Burlington are the corridors owned or restricted by NStar for utility lines. While these lines are not managed for wildlife, they still provide cover and food for numerous species as well as a mostly undeveloped and somewhat natural connection between different habitat areas. The fact that vegetation in the corridors is kept immature through frequent cutting and herbicide spraying helps some species but makes no provisions for others. Acquiring and permanently protecting corridors for wildlife habitat purposes in strategic locations throughout town is an important goal. These corridors could double as hiking or biking paths, thereby increasing passive recreation opportunities as well.

Diminishing habitat for local wildlife has most likely led to an increase in human-wildlife interactions in previously uncommon areas (i.e. residential areas). Wild turkeys, coyotes, red foxes, and whitetail deer are more common in residential neighborhoods. These more adaptable animals are learning to survive in suburban neighborhoods (i.e. using trash bins and ornamental landscaping as a food source), a concern as these behaviors will be taught to future offspring. See Section 4.7 for more information.

Burlington's Wildlife Inventory can be found in Appendix 5.

4.6 SCENIC RESOURCES AND UNIQUE ENVIRONMENTS

There are many places in Burlington that are integral to the Town for their scenic values, including historical sites and conservation areas. The most significant conservation areas, which are described in more detail in Section 5.2.2, are Sawmill Brook, Little Brook, Mill Pond, and Vine Brook. Below are

descriptions of additional areas that carry significance because of their significant contributions to the overall character of the Town.¹⁵

Mary Cummings Park / The City of Boston Property

140 Acres of land along the town's southern border with Woburn is known as the City of Boston Property, also called the "Mary Cummings Park". The land was bequeathed to the City of Boston in 1929 by Mary Cummings, whose will stipulated that the land would forever be used as a "public pleasure ground." Burlington had been concerned that some Boston officials were seeking to break the terms of the will in order to gain a more direct benefit to the City, although those concerns appear to have been allayed in recent years. See section 3.4.1 for more information.

The Landlocked Forest / Parcel

Located to the southwest of Route 3, this 270-acre parcel is the largest natural area in town. It contains a number of wetlands, provides excellent wildlife habitat, and is crossed with hiking trails that connect to trails in Lexington and Bedford. A "friends" group, The Friends of the Landlocked Forest, has begun actively working to improve trails and access and educate Burlington residents about this land. Because open space in Burlington is quickly dwindling, and because of this parcel's highly visible location, the future of The Landlocked Forest / Parcel is still a contentious issue between those individuals who prefer the tax derived revenues from development and those who prefer the enhanced environmental quality associated with open space. Its use has the potential to greatly impact Burlington's habitability and the public's perception of the town. See section 3.4.1 for more information.

Mill Pond Reservoir

Surrounded by the largest conservation area in Burlington, the Mill Pond Reservoir is one of Burlington's most visited open spaces. The Mill Pond Conservation Area includes over 140 acres of rolling and steep terrain with marked and unmarked trails crossing the property. The reservoir serves as one of Burlington's drinking water supplies and is the largest area of open water in Town.

Town Common

The Town Common area is the historical and cultural heart of Burlington. The area encompasses the Town Common and Simonds Park, which together are believed to have functioned as a New England town common since the 17th century. The area around the Town Common includes 19 historic properties. The buildings identified as a potential historic district are mostly wood frame construction and represent a good mixture of the 18th, 19th, and early 20th century buildings in the Colonial, Greek Revival, Transitional Greek Revival and Italianate, Colonial Revival, Bungalow, and Modern Styles.

Hens and Chickens Tavern / John Wynn House

The John Wynn House—also known as the Hens and Chickens Tavern of Colonial days—ranks among Burlington's most remarkable historic architectural treasures. The structure is Burlington's only 18th century Georgian Gambrel mansion, as well as a rare, surviving Colonial tavern and farm property. The 1730s construction date makes it one of the oldest known historic structures in Burlington.

¹⁵ There are no areas of critical environmental concern (ACEC) within Burlington's borders.

Isaiah Reed House

Built circa 1770, this is one of Burlington's finest historic residential properties. This property features a pair of offset, parallel, 2 story, wood framed buildings, with a detached barn set back from the east side of Chestnut Avenue. The street survives as an abandoned and renamed portion of the Colonial Cambridge Street.

Major General John Walker House

The Major General John Walker house is a typical New England Colonial Style house, with an outbuilding and attached barn. The old Walker homestead is thought to have been built as a new home for John Walker and his father, Joshua Walker, between 1770 and 1780.

Burlington Public Library

After determining the needs of Burlington's residents for a larger library facility, Town Meeting in 1964 approved financing for the purchase of a 1.5 acre site on Sears Street and the construction of a new library. Construction of the building began in June of 1967, and the new library opened for business on September 18, 1968. After nearly 30 years of heavy use, the building was showing its age and in 1993 Town Meeting voted to approve funding for additions and renovations to the building, which also did not comply with current building and accessibility standards or size recommendations. Today, the Burlington Public Library continues to strive to meet the information needs of almost 25,000 residents. In 2009 it had total circulation of over 391,072 items, with 91,681 print holdings and 17,372 non-print items. There were 220 programs for children and 157 programs for teens and adults.

Marion Tavern at Grandview Farm

Marion Tavern at Grandview Farm is one of Burlington's principal architectural landmarks. This site has special significance as the Town's only surviving 19th century connected-farm complex. Conceived around 1840, the Marion building originally served as a stage tavern and halfway house to the coach route which passed through town. Its highly-visible location contributes greatly to the Burlington's character and is the historical cornerstone of the Town Common.

In 1999, the owners of the Marion Tavern initiated a process to develop an apartment complex at the site. Town citizens began the "Save the Farm" movement to counteract this, and after a lengthy and complicated negotiation process, the Town settled a land swap with involved parties. As a result, the Town acquired the six acres of the property along with its associated buildings. The Town is working on restoring the Tavern.

The Burlington Historical Museum

The Burlington Historical Museum building was originally erected in 1855 as the Center School, a grammar school. From 1897 until 1969, it served as a public library. The building was recently restored and contains many artifacts of historical significance. Murals painted by local artists Donald Gorvette and Jeffrey Weaver, which depict local history, are particularly noteworthy.

Old Burying Ground

Benjamin Johnson gave this tract of land to the Second Parish in 1769 for use as a burying ground. At that time the land had already been used for this purpose for 40 years or more. It contains some of the oldest gravestones in the area, with some dating back to 1736.

Woburn Second Parish Meeting House

This building, now the Church of Christ Congregational, was erected in 1732 and is included on the National Register of Historic Places.

The West School

Built in 1794, this schoolhouse is one of a group of five that served the Town of Burlington until the Union School was built in 1898. It was originally located in what is now Simonds Park, and in 1839 was moved to its present location. In the 1990s it was completely restored through the efforts of the Burlington Historical Society.

Francis Wyman House

One of the three oldest houses in Massachusetts, the Francis Wyman House has been designated a National Landmark and is the oldest house standing in Burlington. It was built in 1666 to serve as a garrison house to which farmers in the vicinity could flee in case of Indian attacks. The house has been restored by the Francis Wyman Association and is also listed on the National Register of Historic Places.

Archeological Sites

In addition to the buildings listed above, the Massachusetts Historical Commission (MHC) has identified one known area of prehistoric archaeological resources. In order to protect the area from possible vandalism or theft, its location is protected from disclosure.

It should be noted that a complete Town survey of potential archeological sites has not been carried out. The Massachusetts Historical Commission specifically states that their information is incomplete. If the Town becomes aware of additional historical sites or has a concern about a site-specific development proposal, the Massachusetts Historical Commission should be contacted.

A complete showing of areas which contribute to the community's character can be found on Map 5 - Unique Features Map.

4.7 ENVIRONMENTAL CHALLENGES

The environmental problems encountered in Burlington reflect its highly developed status. There are four chief environmental issues that could impact open space and recreation in Burlington: hazardous waste, chronic flooding, over-development, and nonpoint source pollution. Environmental equity is also explored in this section, as ensuring equal access to natural areas in such a densely-developed community is certainly a challenge that Burlington is facing.

4.7.1 HAZARDOUS WASTE, BROWNFIELD SITES, AND LANDFILLS

According to the Massachusetts Department of Environmental Protection (DEP) Bureau of Waste Site Cleanup, as of October 2010, there were 134 locations in Burlington where a release of oil and/or hazardous materials has occurred.¹⁶ The release locations are at varying stages of compliance as defined by the Massachusetts Contingency Plan (MCP) (310 CMR 40.0000). Of those 134 locations, 114 have achieved Response Action Outcome (RAO) Compliance Status, indicating that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were

16 <http://db.state.ma.us/dep/cleanup/sites/SearchResults.asp>

eliminated. Of the remaining 20 site locations, 2 locations involved response actions that resulted in no further action being required and 18 locations are sites where assessment and clean up activities are ongoing. Of those 18 locations, 8 currently have active remediation systems in operation for the purpose of achieving a permanent solution.

The Town of Burlington Water Department conducts regular groundwater sampling and analysis of the public wells and surrounding groundwater monitoring wells. In addition, the Burlington Board of Health enforces Burlington's Control of Toxic and Hazardous Materials Bylaw. The purpose of the local bylaw is to protect existing and potential groundwater recharge areas, surface water areas, and the community from exposure to toxic and hazardous materials. The bylaw requires that every owner of a commercial or industrial establishment storing toxic chemicals and/or hazardous waste in quantities greater than 220 pounds, or 28 gallons, comply with the requirements of the bylaw, which include storage practices, annual inventory registration and inspection requirements. In addition, residents can prevent potential hazardous material releases by continued mindfulness of the potential of leaking home heating oil above ground and underground storage tanks and by participation in household hazardous waste collection events.

Historical releases and the possibility of future releases of oil and hazardous materials within Burlington's Aquifer District are of particular concern. The DEP Source Water Assessment Program (SWAP) rates the potential for a municipality's drinking water source, within an assessment area, to become contaminated. According to the 2003 SWAP report for Burlington¹⁷, due to land uses and activities within its recharge area, the relative susceptibility rating for Burlington's drinking water wells was high.

Acquiring and managing open space, particularly in Vine Brook watershed areas, has the potential to reduce the threat of oil and hazardous material releases to Burlington's water supply system. Wetlands located around drinking water sources would be especially valuable. An educational program about the hazards associated with underground storage tanks may also be useful.

4.7.2 CHRONIC FLOODING

Drainage in Burlington is complex as the town is at the top of three watersheds. Vine Brook in western Burlington is in the Shawsheen River Basin, as are Longmeadow Brook and Sandy Brook. The Ipswich River and Sawmill Brook in northeastern Burlington are in the Ipswich River Basin; and Little Brook in southeastern Burlington is in the Mystic River Basin (see Map 6). Flooding is a persistent problem, as 7.5% of the Town is in 100-year flood zones. Despite their floodplain locales, development was not deterred along streams in these areas, and many nearby residences' cellars and lawns periodically flood during heavy rain events or exceptionally wet seasons, causing concern and frustration. The Town works to lessen flooding by removing obstructions and debris buildup each summer as part of the Stream Cleaning program. To further address this issue, the Town hopes to acquire stream-abutting land and wetlands whenever possible to add to their open space network.

4.7.3 OVER-DEVELOPMENT

Burlington is a town nearly at build-out, and the ramifications from such development must be taken into consideration. It is especially important to consider the type of development when speaking to over-development issues. Beyond residential areas, the Town contains many commercial/institutional

¹⁷ <http://www.mass.gov/dep/water/drinking/3048000.pdf>

properties: a large mall, hospital, various strip malls, and many retail stores, corporations, and restaurants. These uses bring with them environmental concerns such as trash and litter, noise and light pollution, stormwater run-off, and congestion and air quality issues related to high traffic volumes.

However, the over-development issue central to this report is the diminishing open space available in Burlington. This presents quality of life issues for the residents, as well as the local wildlife. Native wildlife is being forced from their natural habitats because of direct habitat loss and habitat fragmentation. Further, local biodiversity is threatened as many species cannot adapt to developed environments. One animal that can adapt to a developed environment is the coyote. A shy animal that typically avoids contact with people, the coyote is being forced into residential neighborhoods due to development. As a generalist species capable of adapting to suburban environments, the coyotes' presence has greatly risen over the past decade. These animals are highly adaptable, and can find the food, water, and shelter needed for survival in suburban environments. Thus their populations are seen to thrive while many others become extinct.¹⁸ To offset such effects, the few remaining opportunities to protect natural areas in Burlington must be seized.

4.7.4 NONPOINT SOURCE POLLUTION

Nonpoint source pollution, such as runoff contaminated by pesticide use, construction, or auto maintenance, is difficult to trace or control and is therefore becoming an increasingly large problem. An inventory done by the Massachusetts Division of Water Pollution Control found that approximately 70% of rivers and coastal waters and 100% of lakes were affected by nonpoint source pollution. Since Burlington's streams enter rivers that provide drinking water to other towns, pollution from nonpoint sources could have an especially serious impact.

Nonpoint source pollution is controlled by methods called "Best Management Practices" (BMPs). Examples would be installing detention/infiltration basins, reducing applications of pesticides and herbicides, and properly disposing of used motor oil and other household chemicals. Because these methods are often applied on a small-scale basis, they are difficult to enforce and are only effective upon large-scale adoption by the public. BMPs have been required for new developments in town over the past several years including the installation of stormwater filtration and treatment systems and installation of stormwater detention basins to allow fine particulate materials to settle out of stormwater and prevent the deposition of silt in water bodies in town.

In the winter of 2009-2010, the Burlington Recreation Department commissioners and staff made a commitment to use only organic materials and fertilizers to maintain all town-owned fields. This process has begun, and enhancements will continue in order to develop the best possible parks and playing fields, both for the athletes and the water supply.

Wetlands and floodplain areas are essential to the mitigation of nonpoint source pollution. Therefore, wetlands and associated uplands would be especially useful acquisitions in the mitigation of nonpoint source pollution for the Town and neighboring communities.

¹⁸ Massachusetts Society for the Prevention of Cruelty to Animals (MSPCA), (2001), Living with Wildlife: About Human Wildlife Conflict, website accessed at <http://www.livingwithwildlife.org/aboutus/conflicts.html> on February 10, 2004.

4.7.5 EROSION & SEDIMENTATION

Erosion and sedimentation poses significant problems in Burlington, including impairing water quality and flow in lakes, ponds, streams, rivers, wetlands, and groundwater; contaminating drinking water supplies; altering or destroying aquatic and wildlife habitats; increasing flooding; and overloading municipal catch basins and storm drainage systems.

Burlington's Erosion & Sedimentation Control Bylaw (Article XIV, Section 6), administered by the Conservation Commission and the Planning Board, requires that any land disturbance greater than 10,000 square feet have an Erosion & Sedimentation Control permit. This permitting process requires significant planning with regards to controlling and preventing erosion and sedimentation associated with land disturbance. Permit applications must include a Stormwater Management Plan, an Erosion and Sedimentation Control Plan, and an Operation and Maintenance Plan for each project site. While this permitting process works well to lessen erosion and sedimentation during construction activities, the effect on long-term maintenance is limited.

Road sand, used heavily during the winter months, is a primary source of sedimentation. The Stream Cleaning Program run by the Engineering Department, which permits limited use of a Vactor truck, offers some relief from the accumulation of road sand within Burlington's streams and rivers, though a more effective solution would be to prevent sedimentation from occurring. A more rigorous maintenance plan and improved stormwater management systems would greatly reduce sedimentation in town. Retrofitting stormwater conveyances with "best management practices" wherever possible, will certainly help to lessen the degradation of our streams and rivers.

4.7.6 FORESTRY ISSUES

There are no forestry operations for timber harvest in the Town of Burlington. Forest management, therefore, consists of monitoring ecological health within Conservation Areas, which Conservation Department staff does as part of their regular land management activities. According to the Eastern Forest Threat Assessment Center, there are 190 identified threats to Massachusetts forests falling into the broad categories of invasive species, insects, diseases, climate, loss of open space, unmanaged recreation, pollution, and wildland fires.

The most often reported and observed threat to Burlington's forests is unmanaged recreation, specifically the use of off-road vehicles (ORVs) on Town Conservation land. The Town of Burlington does not permit the use of off-road vehicles on Town Conservation Areas, though enforcement proves to be difficult for numerous reasons. The intentional removal of vegetation, increased erosion and sedimentation, and compaction of soil related to this unauthorized activity continues to be the most serious land management issue in Town.

Another significant threat to Burlington's forests is the threat of invasive species. Invasive plant species are currently unmanaged in Burlington, though Conservation Staff are looking to implement an early detection management plan for Town Conservation Areas. Although no complete survey has been conducted, the most often encountered invasive plant species in Burlington's Conservation Areas are: Oriental Bittersweet (*Celastrus orbiculatus*), Autumn olive (*Eleagnus umbellata*), Multiflora rose (*Rosa multiflora*), Norway Maple (*Acer platanoides*), Garlic mustard (*Alliaria petiolata*), and Glossy buckthorn (*Frangula alnus*). The Tree of Heaven (*Ailanthus altissima*) has also been noted in Town. Conservation

staff also monitors for damaging insects such as the (observed) Hemlock wooly adelgid (*Adelges tsugae*), (observed) Browntail moth (*Euproctis chrysorrhoea*), and (not present) Asian Longhorn Beetle (*Anoplophora glabripennis*).

4.7.7 ENVIRONMENTAL EQUITY

Equal distribution of Town services is vital to the success and health of a Town's community. Ensuring equal access for all Town residents includes not only access to schools, health facilities, and safety services but also access to public lands and natural areas. Proximity to preserved natural spaces has been shown to increase physiological, psychological, and sociological well-being and these are benefits that all Burlington residents should enjoy. Further, it is important that the Town ensures that no part of the population is disproportionately exposed to an unhealthy environment, such as would cause health hazards or concerns. This issue of environmental equity informs Burlington's decisions with regards to open space planning as is evidenced by the well-distributed protected open space in Town.

Particular attention is paid to neighborhoods throughout the Commonwealth identified as Environmental Justice (EJ) communities, which often suffer environmental inequality. Environmental justice is based on the principle that all people have a right to be protected from environmental pollution, and to live in and enjoy a clean and healthful environment. Environmental justice is the equal protection and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies and the equitable distribution of environmental benefits.

There are two locations of EJ populations in Burlington with one neighborhood in the eastern central part of Town and the other in the western central part of town (See Section 3.TBD and Map 2). These neighborhoods are in close proximity to many of the Town's open spaces, as shown in the tables below.

Burlington can play an important role in advancing environmental justice through land use planning that encourages public participation and through regulatory powers to obtain development results that balance the benefits and burdens of growth. Health risks for Burlington residents can be minimized through targeted environmental enforcement and environmental quality can be improved through initiatives that include reduction of pollutants and emissions, remediation and redevelopment of contaminated land, and investment in parks and open spaces.

Western EJ Community

Conservation Area	Distance from EJ Boundary
Vine Brook CA & Well Fields	Bordering
Marion Road CA	Bordering
Chadwick CA	< ½ Mile
Sandy Brook CA	< ½ Mile
Raymond Road CA	< ½ Mile
Longmeadow Brook CA	< 1 Mile
Forest Field CA	< 1 Mile

Recreation Area	Distance from EJ Boundary
Wildwood Park	Bordering
Town Common	< ½ Mile
Simonds Park	< ½ Mile
TRW Park	< 1 Mile
Regan Park	< 1 Mile

Other Protected Open Space	Distance from EJ Boundary
The Landlocked Forest / Parcel	< ½ Mile

Eastern EJ Community

Conservation Area	Distance from EJ Boundary
Lt. Litchfield CA	Within
Rock Pond Brook CA	Partly within
Mill Pond CA	Partly within
Forest Field CA	< ½ Mile
Sawmill Brook CA	< 1 Mile
Erin Lane CA	< 1 Mile
Raymond Road CA	< 1 Mile
Little Brook CA	< ½ Mile
Recreation Area	Distance from EJ Boundary
Town Common	< ½ Mile
Overlook Park	< ½ Mile
Wildmere Park	< ½ Mile
Rahanis Park	< 1 Mile
Simonds Park	< 1 Mile

Broadly defined, open space is public and privately owned undeveloped lands which are important resources for a variety of reasons including conservation, recreation, agriculture, or simply because of their scenic qualities and their contribution to the overall character of the town. Such space may provide opportunities for active or passive recreation and may contain forests, farmland, old fields, floodplains, wetlands, scenic vistas, or historical sites. These areas are invaluable and irreplaceable resources which bring environmental, social, and economic benefits to the community. As such, it is critical to protect and sustainably manage what open space remains for current and future generations.

There are varying levels of protection, from permanent to temporary, for open space. Property is considered legally protected open space when it falls under Article 97 of the Articles of Amendment of the Massachusetts State Constitution. In Burlington, lands protected by Article 97 are typically those owned by the Town and under the control of the Conservation Commission, Recreation Commission, Water Department. Land may also be article 97 land owned by non-profit organizations or state and federal conservation agencies, though there are no such lands in Burlington. More specifically, Article 97 lands are those that have been designated for natural resource purposes, including conservation, forest, water, and agriculture. As the highest level of open space protection available, the State has made it difficult to convert Article 97 land for other uses; to do so involves multiple time-consuming actions, including the requirement that the matter pass the Massachusetts legislature by a 2/3 vote.

Private lands can also be permanently protected if there is a deed restriction by a Conservation Restriction, Agricultural Preservation Restriction, Historic Restriction, or Wetlands Restriction. Lands purchased for general municipal purposes, and in many cases school grounds, are not protected by Article 97.

Detailed below is information regarding private parcels of recreation or conservation interest and public and non-profit parcels such as public recreation resources, public school areas, and public conservation resources. Several of these areas are already protected open space, while others are being considered for future acquisition or other protection measures.¹⁹

5.1 PRIVATE PARCELS

5.1.1 RECREATIONAL INTEREST

The Burlington Swim and Tennis Club

Located on Center Street a short distance from the Human Services Center, the Burlington Swim and Tennis Club is a non-profit corporation that operates a swimming pool, three tennis courts, and a function building. The Town may wish to consider the possibility of purchasing or leasing this facility if the opportunity arises.

¹⁹ Executive Office of Environmental Affairs, Division of Conservation Services (2001) Open Space Planner's Workbook, website accessed in November 2004 at <http://www.mass.gov/envir/dcs/pdf/OpenSpacePlanners.pdf>

The Mitre Corporation Fields

Located at the intersection of Middlesex Turnpike and Bedford Street, Mitre owns two softball fields, which are used by the Town for Recreation Department softball programs, Little League baseball games, and corporate softball leagues. The Corporation's agreement with the Town stipulates that the field be maintained by the Recreation Department. Because of the great demand for athletic fields in Burlington, the Mitre fields provide the Town an opportunity to serve groups that could not otherwise be accommodated. These fields, however, are currently not in use due to the construction of the Mitre Link, a road construction project.

5.1.2 CONSERVATION INTEREST

Sawmill Road Parcels

There are six (6) privately owned parcels adjacent to Sawmill Road that are of conservation interest in terms of their relation to the Sawmill Conservation area. The largest is 2.1 acres, and their combined area is 9.475 acres.

Muller Road Parcels

In 2010, ten (10) contiguous parcels on Muller Road totaling fifteen acres, owned by the estate of Thorstensen & Parker, were proposed to be re-zoned as a PDD and developed as multi-family housing. The vote on the re-zoning was postponed three times, but as of this OSRP update, it is still under agreement to be developed. While much of the property is degraded from former sand and gravel removal activities and subsequent industrial uses, its location adjacent to Mary Cummings Park / The City of Boston Property makes it intriguing to some as a potential open-space acquisition.

Parcels adjacent to Conservation Lands

Any undeveloped lands that become available adjacent to Conservation areas should be considered for acquisition.

5.1.3 FORESTRY, AGRICULTURE, AND HORTICULTURE INTEREST

Although Burlington was once a primarily agricultural town, only one chapter 61 parcel remains: a 7-acre family farm located on Lexington Street. There is no other forestry, agriculture, or horticultural operations in town. If the one agricultural parcel were to become available in the future, the town should consider acquisition to fulfill demand for municipally owned and managed working lands, which is likely to increase with the expansion of multifamily residential units. Small-scale organic farming is an area of expressed interest and could provide hands-on educational opportunities for area residents.

5.2 PUBLIC AND NONPROFIT PARCELS

There are no open space parcels in Burlington owned and managed by state or federal government or by non-profit organizations. All parcels included below are owned and managed by the Town of Burlington with the exception of those parcels protected by Conservation Restriction with ownership as indicated.

5.2.1 PUBLIC RECREATION RESOURCES

The lands designated as recreation lands in the accompanying chart are owned or managed by the Town of Burlington and maintained by the Recreation Commission (also see Appendix 6 and Map 5). Each of the sites listed below offers active recreation facilities.

Name & Location	Acres	Facilities	Current Use	Description
Simonds Park (Bedford Street)	22	1 lighted softball field, 2 lighted basketball courts, 1 wading pool, 1 program building, playground equipment, picnic area, accessible restrooms, refreshment stand, skate park, street hockey court	Little League baseball, Babe Ruth baseball, girls softball, tennis lessons, basketball leagues, day camps, family outings, picnicking, skateboarding, street hockey	A highly developed park in the center of Burlington, Simonds Park is the Town's largest and most-used recreation facility. It is used by people of all ages for a wide variety of structured and informal recreation activities.
Overlook Park (Edgemere Avenue)	20	Playground equipment, park playhouse, maintenance garage, 1 basketball court, picnic area	Pick-up basketball, family outings, picnicking, adult community theater, children's theater programs, neighborhood program	This former U.S. Army Nike missile site is now used by the Town as a public park, headquarters for the Recreation Department's maintenance division, and as the home of the Burlington Players, a non-profit community theater organization.
Rahanis Park (Mill Street and Patriot Road)	15	8 tennis courts, 2 softball fields, 1 basketball court, 2 multi-purpose fields, playground equipment, 1 sand volleyball court, picnic area with tables, handicapped accessible bathroom facility	Softball, youth soccer, tennis lessons, high school tennis, family outings, picnicking, summer playground program, pick-up basketball	Rahanis Park is an excellent facility which draws Town-wide use for a great number of programs and activities. The development of this park has helped to take some of the pressure off of Simonds Park, Burlington's only other park that attracts people from throughout the community.

Human Services Center Fields (Center Street)	10	1 major baseball field, 1 softball field, 1 multi-purpose field	High school baseball, soccer, and lacrosse; youth soccer, Babe Ruth baseball, youth softball	These fields are located on Center Street behind the Human Services Center. Burlington High School uses the facilities for freshman baseball; the Burlington Baseball & Softball Association uses them frequently in the spring and summer; and lacrosse and girls field hockey are also played here.
TRW Park (Mall Road and Stony Brook Road)	7	2 baseball fields, playground equipment, 1 multipurpose field, picnic area with tables	Little League baseball, adult softball, youth soccer, family outings, picnicking	Located on Mall Road, this park is used primarily for Little League baseball, youth soccer, and as a neighborhood playground
Town Common (Cambridge Street and Center Street)	7	Band stand, picnic tables, water fountain and landscaped brick sitting area donated by Rotary	Summer movie series, large Town events including Truck Day, Celebrate Burlington Day, and Dare Day	The Town common is centrally located on Cambridge Street, and is surrounded by historic buildings and municipal facilities including the Town Hall, Fire Department, Police Department, and Post Office. Primary uses include Town events, and a picnic and relaxation area in nice weather.
Regan Park (County Road to Sumpter Avenue)	6	1 Little League field, 1 basketball court, playground equipment, activity shelter, picnic area with tables	Little League baseball, pick-up basketball, family outings, picnicking, summer playground programs	This is primarily a neighborhood park, which attracts Town-wide use only for Little League baseball games
Veterans Parks (Wilmington Road)	5.5	1 softball field, ½ basketball court, activity shelter, playground equipment, picnic area with tables	Baseball, softball, pick-up basketball, family outings, picnicking	This is primarily a neighborhood park.
Mitre Corporation Fields (Bedford Street and Middlesex Turnpike)	5	2 softball fields	Corporate softball, Recreation Department softball, Little League baseball	These softball fields are owned by the MITRE Corporation and, by agreement, managed by the Town. The two fields are extremely valuable in serving the needs of Recreation Department softball leagues, corporate softball groups, and Little League baseball. However, due to construction of the Mitre Link, these fields are not currently used and only two fields will remain post-construction.

Marvin Field (South Bedford Street)	4.5	Lighted softball field	Adult softball leagues, high school softball, corporate softball	This is Burlington's premier softball field, used for Burlington High School varsity softball and the Recreation Department's adult softball leagues
Wildmere Playground (Wildmere Avenue)	3	Basketball court, playground equipment, picnic area with tables	Pick-up basketball, family outings, picnicking, play activities for young children, summer playground program	Located in the Winnmere section of Burlington, Wildmere playground is a neighborhood play facility used almost exclusively by children in the immediate area.
Rotary Fields (South Bedford Street)	1.7	Lighted softball field	Adult softball leagues, high school softball, corporate softball	Purchased from the Federal Government and developed with the help of the Burlington Rotary Club, this field is used for high school softball, Recreation Department softball leagues, and corporate softball.
Pathwood Tot Lot (Pathwood Avenue)	.5	Playground equipment, ½ basketball court, picnic area with tables	Pick-up basketball, play activities for young children, picnicking	This is Burlington's smallest recreation facility, and is primarily used by young neighborhood children.

5.2.2 PUBLIC AND PRIVATE CONSERVATION RESOURCES

Conservation Areas are owned by the Town of Burlington and managed by the Conservation Department. All Conservation Areas are open to the public, although some do not have access points to date. Properties with Conservation Restrictions are not necessarily accessible to the public, though some have allowed for public access and trail easements.

Name	Acres	Description
Mill Pond Conservation Area	140	Mill Pond Conservation area consists of land surrounding the town reservoir and forms the largest conservation area in Burlington. Numerous marked and unmarked trails run throughout, which are used by joggers, walkers, and mountain bikers. This land was originally acquired to protect the reservoir watershed, which remains its primary purpose. However, because of its size and the fact that it surrounds the only large open body of water in Burlington, it is the most well-known and used conservation area in town. It also has potential for wheelchair accessibility as the trail along the north side of the reservoir is fairly flat and wide.
Little Brook Conservation Area	36	With 36 acres, this is the second largest conservation area in Burlington. Much of this area is steep with low-lying wetlands in its western portion. There is also beautiful upland area in the central and eastern section of the site. Many trails are open to the public here, but because it is less well known than the Mill Pond area, this site receives less use.
Sawmill Brook Conservation Area	27	Sawmill Brook Conservation Area is the third largest in Burlington and features woodlands, wetlands, and meadows. This property features Sawmill Brook, which forms the southern border for most of the parcel, and attracts birds and other wildlife. There are also several trails through the property making this Conservation Area easily accessible and classes from the adjacent Fox Hill Elementary School frequently utilize this land for educational purposes. Also, the historic Clapp's Mill Site has 4 acres directly adjacent to this Area that contains the remnants of an historic mill and dam. A Tennessee Gas pipeline easement runs through this property, and is clearly visible as a mowed area about 60-feet wide.
Vine Brook Conservation Area	22	The Vine Brook well field near the confluence of Vine Brook and Sandy Brook contains some of the most beautiful natural areas in Burlington. Because of abuse that occurred here in the past, this property was closed to the public. However, in mid-1990 the town needed to gain access to a well (well #10) located in this wetland area. In 1997, after consultation with the Burlington Conservation Commission, an environmentally friendly wooden trestle bridge was constructed to provide Town entry. Although the area is still not open to the general public because it is a water supply, some groups who obtain special permission, such as educational groups, can use the bridge to view and enjoy the land.

Marion Road Conservation Area	15	The Marion Road Conservation has several acres of uplands and an extensive wetland system that provides significant flood storage and water quality enhancement. There is excellent diversity of native vegetation throughout the parcel (including a dozen large shagbark hickory trees – a rare species in Burlington) that provide valuable wildlife habitat. Hawks, owls, pheasants, foxes, woodchucks, and deer have all been spotted here. It also contains a well-used trail.
Pine Glen Conservation Area	6	A small parcel of land traversed by several brooks, the Pine Glen Conservation Area serves mainly to provide wildlife habitat and protect water quality. The Conservation Commission recently blazed a loop trail with stream crossings. This project was sponsored by the Department of Environmental Management Greenways Grant Program and allows for the adjacent Pine Glen School to use the land for educational purposes.
Sandy Brook Conservation Area	5	This conservation area is primarily wooded swamp along Sandy Brook. Because of the thick underbrush and wet ground, the property is not easily used for recreation. Its main functions are to protect water quality and provide flood storage.
Chadwick Conservation Area	3.78	This parcel contains a brook, wetlands and woodlands. Currently there are no marked trails in the Chadwick Conservation area.
Ipswich Conservation Area	3	Consisting primarily of boggy wooded swamp, this parcel also includes a rock peak. The site gets its name from the small stream that is the head of the Ipswich River that passes through a corner of the site. A large conservation area in Wilmington abuts the property.
Muller Road Conservation Area	3	This area is comprised of dry land donated to the town for conservation purposes. This parcel is primarily used by urban wildlife as it is under high-tension lines and in close proximity to the Middlesex Mall.
Rock Pond Brook Conservation Area	3	Most of this parcel consists of steep uplands, although a brook traverses the back portion of it. Current access to this site is through an unmarked right of way which is difficult to spot and very steep in places. Since this property is located near Marshall Simonds Middle School, a goal is to explore creating easier access and encouraging use of the land by school classes.
Longmeadow Brook Conservation Area	2	The primary purpose of this land is flood control and water quality protection. It includes a variety of vegetation growing along the steep valley around the brook. An abutting parcel of land, owned by the Town, could potentially provide better access to this site than the easement that is the current access point.
Fairfax Conservation Area	>1/8	Although the Fairfax Conservation Area is small, the contribution it makes as a protected habitat corridor for wildlife is immeasurable. This area allows organisms to travel safely between habitats and reduces the number of roadkill events.
Forest Field Conservation Area	10.7	This parcel of mixed uplands and wetlands is located along the Boston Edison power lines between Mill and Locust Streets. The combination of field, forest, and wetlands makes this a good area to find a diversity of flora and fauna. While there are few paths in the area, the power line makes for easy walking; however, there is no legal access to this site. Obtaining an access point is the first priority for this conservation area.

Lubber Brook Conservation Area	5.4	In addition to Lubber Brook, a number of small brooks and wetlands are present in this area. Although this makes walking difficult, such environment provides important wildlife habitat, flood storage, and water quality protection.
Litchfield Way Conservation Area	3.2	The benefits of this land include habitat for wildlife and flood storage protection.
Glen Cove Park Conservation Area	1.5	The parcels that make up the Glen Cove Park Conservation Area are located just upstream from the Sawmill Brook Conservation Area. These lands serve as wildlife habitat and provide drainage and flood control in the Sawmill Brook watershed.
Raymond Road Conservation Area	9	The largest parcel in this conservation area was acquired by the town in 2003 in lieu of foreclosure and subsequently transferred to the Conservation Commission in 2005. Two additional contiguous parcels were transferred to Conservation in 2006. Although there are some informal trails, much of this area forms the headwaters of Sandy Brook and there are extensive wetlands and several small streams that feed into and form Sandy Brook.
20 Michael Drive CR	0.42	This Conservation Restriction was established in 2004 along with two other CRs on Michael Drive when this road was developed.
22 Michael Drive CR	0.48	This Conservation Restriction was established in 2004 along with two other CRs on Michael Drive when this road was developed.
24 Michael Drive CR	1.13	This Conservation Restriction was established in 2004 along with two other CRs on Michael Drive when this road was developed.
Stone Brook Farms CR	~1	This small Conservation Restriction, established in 1993, is for the southwest corner of the Stone Brook Farms property in the center of Burlington.
101 Cambridge Street CR	0.46	Comprised primarily of wetlands, this Conservation Restriction abuts 3.7 acres of currently undeveloped land along Cambridge Street and was established in 1993.
95 Lexington Road CR	0.46	Established in 1993, this Conservation Restriction, which applies to a single-family house lot, is entirely within Zone A FEMA floodplain for Vine Brook.
99A Wilmington Road CR	1.92	This Conservation Restriction applies to 1.92 acres of a single-family house lot in northern Burlington. Established in 1990, this property protects extensive wetlands as well as Zone II wellhead protection area.
Seven Springs CR	15.1	Along with the Arborpoint Conservation Restriction, this protects approximately 30 acres of open and vegetated wetlands around the multi-family housing complex in the southern part of Burlington developed in 2005.
Arborpoint CR	15.6	Along with the Seven Springs Conservation Restriction, this protects approximately 30 acres of open and vegetated wetlands around the multi-family housing complex in the southern part of Burlington developed in 2005.
5 Wall Street CR	0.07	This Conservation Restriction is a narrow strip of land that surrounds the end of pavement on Mountain Road and the last house lot on the north side of Mountain Road.
Longmeadow Place CR	3.04	As part of the development of a senior housing complex on Burlington Mall Road, this Conservation Restriction was established in 1997. This parcel is primarily wetlands and floodplain storage associated with Longmeadow Brook.
4 Wilmington Road CR	~1.3	This conservation restriction was established in 1991 and encompasses a deciduous wetland at the corner of Wilmington Road and Cambridge Street.

Camp Cummings CR - Wilmington	7.96	This conservation restriction applies to a parcel of land in the neighboring town of Wilmington. It is included here as the Town of Burlington was the purchaser of the restriction. The property upon which this conservation restriction has been placed is a former Boy Scouts camp and is referred to as Camp Cummings.
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5.2.3 PUBLIC SCHOOL PARCELS

The Town of Burlington owns and operates six public schools that provide a variety of outdoor athletic facilities for school sports programs, informal play, and Town recreation activities. All public school grounds and outdoor athletic facilities are maintained by the Recreation Department. The following list indicates the outdoor facilities available at each school.

Burlington High School

- Lighted artificial turf football stadium
- Two multi-purpose practice fields
- Lighted running track
- Softball field

Marshall Simonds Middle School

- Three Multi-purpose athletic fields
- Three basketball hoops (for informal play)

Fox Hill Elementary School

- Basketball court
- Playground equipment
- Softball field

Francis Wyman School

- Major baseball field
- Multi-purpose athletic field
- Playground equipment

Pine Glen Elementary School

- Multi-purpose field
- Little League baseball field
- Playground equipment

Memorial Elementary School

- currently under construction, no fields available

5.2.4 OTHER PUBLIC LANDS

There are two other large parcels of land within the Town's borders that have the potential to benefit the community's conservation and recreation efforts.

Mary Cummings Park / The City of Boston Property, the 12th largest public open space inside of Route 128, consists of 166.5 acres of land in Burlington and 46.5 acres of land in Woburn. The land was left in trust to the City of Boston by Mary Cummings upon her death in 1927, whose will stipulated that the land be forever used as a "public pleasure ground." Some in Burlington remain concerned that some Boston officials seek to break the terms of the will in order to gain a more direct benefit for the City. Most local officials and the Massachusetts Attorney General's Office believe, however, that the provisions of Article 97 of the Massachusetts Constitution would apply to any attempt to develop the property²⁰.

The Friends of Mary Cummings Park was founded in 2007 as a non-profit corporation with the mission to help keep Mary Cummings Park forever open as a public park and playground, to promote recreation consistent with the historic uses of the park, to promote the protection of wildlife habitat and watershed, and to seek and hold land or easements in its environs for this purpose. At the end of 2010, membership was at 662 members. Additionally, the trust for Mary Cummings Park called for the land to be kept "forever open as a public pleasure ground" and the Friends of Mary Cummings Park has been working to ensure the City of Boston continues to manage it as such.

20 Personal communication between the Friends of Mary Cummings Park legal representation and the MA Attorney General's office dated November 20, 2008.

One of the group's recent notable accomplishments is successfully advocating for the sale of Whispering Hill Woods, a 75 acre piece of land that bisects Mary Cummings Park, to the City of Woburn. The woodland, which was owned by Northeastern University, was threatened by development. Through the work of the Friends of Mary Cummings Park and the support of Northeastern University students (Husky Environmental Action Team, HEAT), Northeastern University agreed to sell the land to the City of Woburn for conservation and watershed protection. The Friends of Mary Cummings Park are currently working to protect 17 acres which the Friends of Mary Cummings Park call Muller Glen.

The Friends of Mary Cummings Park promote the park through appearances at regional events, such as the annual Woburn Lions Club Halloween Parade and the Boston GreenFest, and through their own annual photo contest. They have paid for and erected kiosks, built by students in regional technical schools, at park entrances on Blanchard Road in Burlington, Sylvanus Wood Lane in Woburn, and Rotary and Marvin Fields in Burlington. They have negotiated access and signage through the Quail Run Conservation Area to the south of the park, helped certify vernal pools, cleaned and maintained trails, and facilitated activities at the park with the Burlington High School and Cub Scouts, as well as other regional schools and groups. They won New England Grass Roots Environmental Fund grants for 2009 and 2010, and have helped support other groups in forming successful campaigns for the conservation of open space.

The Landlocked Forest / Parcel was taken by eminent domain in 1985 for water supply protection and conservation purposes. Because the purpose of the taking was for water supply protection and conservation purposes, the property is subject to the provisions of Article 97 of the Massachusetts Constitution. The property is between 250 and 270 acres of land on the west side of Route 3, bounded by Bedford, Lexington, and Route 128. The land is zoned General Industrial, and partly in the Aquifer and Water Resource Districts. The Aquifer and Water Resource District delineations were amended in 1996, reducing the land area of The Landlocked Forest / Parcel protected by these overlay districts.

The Town explored possibly developing a municipal golf course and recreation facilities on the land in the 1990's, but Town Meeting voted not to pursue this concept. A more recent inquiry was for the development of an office/research park and a continuing care retirement facility. Most recently, a Town Meeting committee – the Land Use Subcommittee - evaluated Town assets and initially proposed using portions of The Landlocked Forest / Parcel to offset losses of open space elsewhere in Burlington. Since the land is interpreted to be open space, those recommendations regarding The Landlocked Forest / Parcel have been reconsidered.

As part of the settlement of litigation related to the taking, the court awarded a 20-year right of first refusal to the original owners if the Town pursued using the land for some other purpose. That right of first refusal was acquired by Patriot Partners, who subsequently approached the Town about joint development of the property. The proposed use of the property for an office/research park and continuing care retirement facility while maintaining some portions as permanent open space was met with mixed reaction, but the Board of Selectmen opted not to pursue any agreements at that time. The process also yielded the formation of the "Friends of the Landlocked Forest," who have undertaken initiatives to promote access and use of the property for open space and recreation purposes.

The Friends of the Burlington Landlocked Forest was formed in the summer of 2008 to help protect and preserve this land and to increase public interest in and appreciation of the land. There are currently several hundred Burlington residents in their database of interested supporters, as well as a number of

residents from Wilmington, Woburn, Billerica, Bedford, and Lexington. Initially the group worked to educate the citizens of Burlington on the taking of the land under Article 97 of the state constitution for the protection of the town water supply and for passive recreation. A website was created in August, 2008, www.landlockedforest.com, to provide information on how to access the land and also included information on the history of the parcel and the kinds of wildlife found there. In the fall of 2008, the Friends of the Burlington Landlocked Forest organized a petition and gathered over 500 signatures from Burlington residents who wanted to reject the bid for the sale and development of this land. The group began leading walks in the forest, Boy and Girl Scouts began using the forest for activities, and accurate trail maps were developed showing the trail system created in 2009. Public use of the land continued to increase and in the spring of 2010, a kiosk was built on Turning Mill Road in Lexington to mark the parking lot and entrance to the Forest. In the fall of 2010, the Friends received permission and began raising the funds to build environmentally sensitive boardwalks where the trail crosses the wetlands, further enhancing the accessibility of this parcel. The Friends of the Burlington Landlocked Forest are actively seeking to establish additional protection for this land and have considered such tactics as advocating for the care and management of the land be transferred to Conservation Commission or for the establishment of a conservation restriction.

6.1 DESCRIPTION OF PROCESS

In the spring of 2010, Conservation Commissioner Gretchen Carey volunteered to spearhead the update of the Open Space & Recreation Plan, and a few months later she was joined in her efforts by Jodie Wennemer, the newly appointed Conservation Assistant.

The two worked together to solicit the community's opinions with regards to open space in Town. An Open Space & Recreation Plan Public Opinion Meeting was held in June of 2010, where residents could share their thoughts about the various topics related to open space in Burlington. Aware of the likelihood of a small turnout and common interests of meeting attendees, it was decided that a town wide survey would help to capture a cross section of the interested parties. Additionally, drafts of the 2011 Open Space & Recreation Plan were made available for public comment through the Town website.

Throughout the process of updating the Open Space & Recreation Plan, cooperation and consultation was sought with multiple Town departments including the Department of Public Works, Planning Department, Recreation Department, Health Department, Conservation Department, ADA Coordinator, Water Department, the Town Clerk's Office, and the Town Administrator's Office.

6.2 STATEMENT OF OPEN SPACE AND RECREATION GOALS

The overall open space vision for Burlington is to improve the Town's current open space offerings to enhance quality of life for all residents and to expand opportunities for active and passive recreation throughout Town. Achieving this goal includes:

- Increasing the quantity and improving the quality of athletic fields and other recreation facilities
- Protecting and utilizing the remaining large tracts of land in Town that are currently unprotected (i.e. the Boston Property and The Landlocked Forest / Parcel)
- Continuing to acquire and/or protect land for conservation, flood storage, and water supply protection
- Improving the transparency and communication between departments and to the community on open space and recreation issues

Ideally, Burlington will progress sustainably, meeting the habitability needs of the community, providing a safe, healthy environment and high-quality recreation programs and facilities. This should be realized while simultaneously encouraging smart growth planning for future residential and commercial development.

7.1 RESOURCE PROTECTION NEEDS

Burlington is a densely developed community nearing both residential and commercial build-out. Much of the development in Town occurred before regulations limiting natural resource impacts were in place so there is great need to improve existing conditions. Open space acquisition should remain a priority as well, as evidenced by the deficiency in Town-owned, permanently protected open space in comparison to neighboring communities.

7.1.1 CONNECTING GREEN SPACE

While the Conservation Commission is eager to acquire more land for the purpose of creating new conservation areas, the reality is there are very few large areas of undeveloped land in Town. The two remaining areas are the aforementioned Landlocked Forest / Parcel and Mary Cummings Park / The City of Boston Property. While these areas would be welcome additions to the Town's Conservation Areas, both are already permanently protected as open space under the provisions of Article 97. However, due to their size and the fact that both parcels are under development pressure, these areas are still at the forefront of discussions regarding open space needs. As previously mentioned, two local resident's groups have been created with the goal of ensuring the permanent protection of these areas as open space.

The Friends of the Land Locked Forest and the Friends of Mary Cummings Park have brought these two natural areas into the public eye with the intent of protecting them in their natural state. Additionally, neighboring towns have taken action to connect to and enhance these areas. The Town of Lexington is currently working on the West Lexington Greenway, intended to connect green space from the edge of The Landlocked Forest / Parcel through the western part of Lexington via an extensive trail network. The City of Woburn has recently purchased the Whispering Hill site, a large green space adjacent to Mary Cummings Park / The City of Boston Property.

As there are limited possibilities for the establishment of new Conservation Areas in Burlington, the focus of resource protection efforts has been and should continue to be to acquire parcels of land to expand existing Conservation Areas and adjacent to or encompassing wetlands and waterways. Conservation Restrictions should also be pursued for parcels adjacent to existing protected open space and/or along waterways where outright acquisition isn't feasible. The acquisition and protection of land adjacent to existing protected natural areas, enhancing and enlarging core wildlife areas, is essential to our native wildlife. The acquisition of land along our waterways and wetlands will not only aid in wildlife movement, but will also aid in watershed protection.

7.1.2 PROTECTING WATERSHEDS

In addition to the expansion of existing conservation areas, land acquisition efforts focus on protecting our watersheds and wetlands, though opportunities are infrequent. While there is not much land left to buy in Burlington for conservation, there are a few remaining undeveloped parcels of land, the protection of which would certainly help to protect our watersheds. Town residents also recognize the need to preserve open space and natural areas in Burlington, with 200 of 208 survey respondents reporting as such (Appendix 2, question 8).

A potentially more effective and more critical focus for watershed protection is the utilization of environmentally responsible management decisions throughout Town, such as the commitment of the Recreation Department to use only organic materials and fertilizers for the maintenance of all town-owned fields. Burlington is a high-traffic area and much of the industry and infrastructure was built adjacent to the water supply before regulations limited such actions. The Town should implement pollution abatement measures to preserve the biodiversity and natural features of the land and to ensure the health of our waters.

Low impact development (LID) techniques should be utilized and encouraged throughout Town. The Zoning Bylaws and the Sediment and Erosion Control Bylaws should be revisited and revised, wherever possible, to promote and strongly encourage the use of LID techniques.

7.2 COMMUNITY NEEDS

Burlington's needs regarding open space are typical in that active and passive recreation, cemetery expansion, and improvements to and development of municipal facilities are in continuous competition for land. In an effort to aid the analysis and prioritization of these needs, we held a public opinion meeting, conducted a public opinion survey, and consulted regional planning resources.

MetroFuture, the regional master plan prepared by the Metropolitan Area Planning Council, outlines 65 goals to help guide growth in the region. Goals specific to Open Space and Recreation Planning include the following:

9. The region's landscape will retain its distinctive green spaces and working farms
22. Urban and minority residents will not be disproportionately exposed to pollutants and poor air quality
23. All neighborhoods will have access to safe and well-maintained parks, community gardens, and appropriate play spaces for children and youth.
25. Most residents will build regular physical activity into their daily lives.
62. The region's rivers, streams, lakes, and ponds will have sufficient clean water to support healthy aquatic life and recreational uses.
63. The ecological condition of wetlands will improve, and fewer wetlands will be lost to development.
64. The region will retain its biodiversity, and will have healthy populations of native plants and animals, and fewer invasive species.
65. A robust network of protected open spaces, farms, parks, and greenways will provide wildlife habitat, ecological benefits, recreational opportunities, and scenic beauty.

There are 13 specific Implementation Strategies cited in Metrofuture to achieve the 65 goals referenced above. Elements of Strategy 7, “Protect Natural Landscapes” and Strategy 13, “Conserve Natural Resources” are undertaken in Burlington toward these goals, both individually and in cooperation with abutting communities:

- Plan for land preservation on a state and regional basis;
- Increase funding for priority land acquisition;
- Support private sector conservation initiatives;
- Adopt sustainable land use controls in less-developed areas;
- Increase the use and impact of Open Space Residential Design;
- Plan for sustainability;
- Conserve energy;
- Promote the use of renewable resources;
- Implement water/wastewater/stormwater utility “best practices” across the region;
- Promote local treatment and recharge of stormwater and wastewater;
- Protect the quality of water supplies through source controls and land use planning;
- Increase waste reduction and recycling.

7.2.1 ACTIVE RECREATION NEEDS

There is an increased demand for active recreation facilities as playing fields at the Mitre campus and at the Memorial School are currently unavailable due to construction projects. The newly created Wildwood Park and the project planned for Mary Cummings Park / The City of Boston Property will help to alleviate some of the need, though demand, by nature, continues to grow. The conversion of the football field at the high school to an artificial turf will allow for heavier use of the field and the Town is exploring the possibility of artificial turf at additional sites. The installation of lighting at several fields allows for game play to occur later into the evening, which helps to spread the demand of field time. There is an expressed need for fields available for multicultural sports, such as cricket, that has not yet been addressed.

Hiking, golfing, and playground activities are popular activities in the Northeast region (SCORP, 2006). According to our survey results, active recreation facilities and public parks are the most frequently visited open spaces in Burlington (Appendix 2, question 9). Most of our survey respondents (66%) are satisfied with the facilities available for child and youth recreation. However, only 43 % were satisfied with the adult recreation areas in town. Local neighborhood parks, swimming facilities, and family picnic areas were also reported to be lacking as reported through our survey (Appendix 2, question 11).

7.2.2 PASSIVE RECREATION NEEDS

Those in town who favor open space protection for passive recreation needs were well represented at the public opinion meeting held in June of 2010. Overwhelmingly, attendees reported the need to preserve the open spaces and natural areas of Burlington. Many reported being alarmed at the rate of build out and are seeking ways to preserve what little green space there is left. Survey results also show that many feel it important to protect land in its natural state, particularly if it is over or near a water resource. This includes The Landlocked Forest / Parcel, and Mary Cummings Park / The City of Boston Property.

Burlington residents report the greatest unmet needs are for preserved natural spaces, bike trails, and hiking and cross-country skiing trails (Appendix 2, question 11). Additionally, residents have been clear about the need for clean water and conservation lands in town, indicative of support for natural resource protection (Appendix 2, question 10). Wilderness activities, according to SCORP, were the least reported and suggest a deficiency of trail and wilderness resources in the region (SCORP, 2006).

7.2.3 ACCESSIBILITY NEEDS

There is a notable deficiency in the accessibility of preserved natural areas in Town for all residents, including those with mobility restrictions. Conservation Areas, acquired and maintained to preserve natural conditions, are by nature difficult terrain for residents with mobility restrictions. These areas are also of limited accessibility to all residents simply due to the lack of parking and discontinuous sidewalks between residential areas and these lands. While hiking trails within Conservation Areas are well established, a town-wide trail network is unlikely due to the dense development in Town. Addressing access issues should be a priority to ensure the Burlington community enjoys the full extent of benefits associated with permanently protected open space. Increasing accessibility to Conservation Areas should be a priority and improvements made where feasible. Recreational facilities, when possible, are being constructed or altered to provide ADA accessibility.

7.2.4 ADDITIONAL NEEDS

Another critical need is to connect the Burlington community to existing open space through better public education and outreach. Burlington residents have indicated that a significant obstacle to their use and enjoyment of park and conservation areas is that many do not know where these facilities are located (Appendix 2, question 12). In response, the Conservation pages on the Town website have been redesigned to include a clear map depicting Conservation Area locations, trail maps for the more heavily used lands, and descriptions of these areas, though more outreach is needed. Burlington Conservation has also hosted a series of outings designed to increase use and enjoyment of the Town's Conservation Areas.

According to the 2006 Statewide Comprehensive Outdoor Recreation Plan, the Northeast has a dissatisfaction level for bikeways that is the highest in the state. There have been efforts to connect a Burlington bike path to the existing Minuteman Bike Path in Lexington, but progress toward this goal has been slow and varied. Bike trails and hiking and cross-country skiing trails were second and third most often reported deficiency in facilities (Appendix 2, question 11). Additionally, many residents have reported the need for a dog park, though several other facilities were more frequently reported as being deficient.

7.3 MANAGEMENT NEEDS

Unfortunately, while federal, state, and private non-profit presence in the Northeastern SCORP region is significant, no open space lands within Burlington are owned and managed by these groups (SCORP, 2006). Therefore, municipal management of public open space is even more critical. As stated throughout this plan, there is very little undeveloped, unprotected open space left in Town. Recognizing this, the proper management and maintenance of existing open space is imperative to ensure the community is afforded the most benefit from these spaces.

There is a need to expand the Recreation Department's maintenance capabilities by improving its maintenance management and increasing manpower. The Recreation Department currently maintains all of the Town's parks, playgrounds, athletic fields, school grounds, tennis courts, basketball courts, and all other outdoor recreation facilities. There are not sufficient resources to maintain all of these facilities adequately. Invariably, it is the school grounds that suffer most from lack of maintenance, but athletic fields and other recreation facilities are often impacted.

There is a need to expand the Conservation Department's management capabilities by increasing staffing levels. The Conservation Assistant position, cut to half-time in 2010, is largely responsible for public education and outreach, an area previously identified as in need of increased attention. There are also several aspects in the management of Conservation Areas that would benefit from additional staffing. Burlington does not currently have baseline documentation for its Conservation Areas beyond simple vegetation and wildlife surveys. Baseline documentation for natural resources is a necessary first step in the creation of land management plans – documents that provide specific direction to the care and maintenance of Conservation Areas. Marked boundaries, detailed baseline documentation, regularly updated land management plans, and regular monitoring are essential for the continued care and protection of these natural areas. Establishing these necessary management tools will require a significant time commitment beyond current staffing levels.

Through a series of guided conservation outings, the Conservation Department has formed the Burlington Conservation Stewards, a dedicated group of residents who can help to respond to the needs of the Conservation Areas. These volunteers are critical to the management of our open spaces and assist in education, trail maintenance, GPS surveys, and new land acquisition. Currently, the Burlington Science Center and the Burlington Cub Scout and Boy Scout troops are an integral part of this project.

The Conservation Department would like to establish a funding source for land acquisition to allow for the purchase of undeveloped land when it becomes available. Some Town residents have expressed interest in adopting the Community Preservation Act in Town, which would help the Town preserve open space and historic sites and to create affordable housing and recreational facilities.

8.1 GOAL A: BEAUTIFY BURLINGTON'S PUBLIC OUTDOOR RECREATION FACILITIES AND SCHOOL GROUNDS*Objectives:*

- A-1 Develop a beautification plan for the Town's outdoor recreation facilities and school grounds.
- A-2 Beautify all athletic fields.
- A-3 Beautify all public school grounds.
- A-4 Improve signage at all public recreation facilities.
- A-5 Beautify all parks and playgrounds.

8.2 GOAL B: BEAUTIFY BURLINGTON'S TOWN COMMON*Objectives:*

- B-1 Improve handicapped accessibility.
- B-2 Upgrade bandstand and surroundings.
- B-3 Upgrade the sidewalks.

8.3 GOAL C: PROVIDE ADDITIONAL ATHLETIC FIELDS FOR HIGH SCHOOL SPORTS, YOUTH SPORTS, AND ADULT ATHLETIC PROGRAMS*Objectives:*

- C-1 Provide additional youth baseball/softball fields.
- C-2 Provide additional multi-purpose fields.
- C-3 Develop at least one multi-field youth baseball complex.
- C-4 Develop a new major baseball field.

8.4 GOAL D: REDUCE WEAR AND TEAR ON THE TOWN'S ATHLETIC FIELDS*Objectives:*

- D-1 Maximize the use of the town's new artificial turf field at the high school.
- D-2 Apply field-use standards to all high impact athletic fields.

8.5 GOAL E: IMPROVE THE MAINTENANCE OF ALL TOWN OUTDOOR RECREATION FACILITIES*Objectives:*

- E-1 Improve maintenance of athletic fields.
- E-2 Use technology to assist with facility maintenance.
- E-3 Improve street hockey rink, skateboard park, and tennis courts.
- E-4 Improve driveways, walkways, and parking lots at the Town's parks and playgrounds.
- E-5 Rehabilitate existing facilities.
- E-6 Improve drainage at existing parks.

8.6 GOAL F: UTILIZE THE CITY OF BOSTON PROPERTY FOR A VARIETY OF ACTIVE AND PASSIVE RECREATIONAL ACTIVITIES*Objectives:*

- F-1 Gain permission to use the City of Boston Property for recreational purposes (discussions and negotiations are currently ongoing)
- F-2 Develop an athletic field at the site.
- F-3 Provide playground facilities.
- F-4 Provide parking facilities.

- F-5 Provide trails.
- F-6 Provide other recreational facilities.

8.7 GOAL G: DEVELOP NEW OUTDOOR RECREATION FACILITIES AT EXISTING PARKS

Objectives

- G-1 Improve lighting at facilities.
- G-2 Provide picnic shelters/restrooms/out buildings at parks.
- G-3 Provide water spray facilities.
- G-4 Provide new hockey and skate parks.
- G-5 Provide new playgrounds.
- G-6 Consider providing a public swimming facility.

8.8 GOAL H: IMPROVE ACCESS TO CONSERVATION AREAS AND RECREATION FACILITIES

Objectives

- H-1 Explore funding potential and devise further options to link Burlington's open space via paths, corridors, and sidewalks.
- H-2 Increase the number of sidewalks, bike paths, and walking paths, especially in areas between two parcels of open space which cannot be connected through protected land.

8.9 GOAL I: INVOLVE THE PRIVATE SECTOR IN PROTECTING OPEN SPACE AND PROVIDING RECREATION OPPORTUNITIES

Objectives

- I-1 Encourage owners of existing business properties to construct facilities for employees.
- I-2 Promote public-private partnerships to acquire and/or develop land for recreation use by residents and employees of Burlington businesses.

8.10 GOAL J: PROTECT BURLINGTON'S WATER RESOURCES

Objectives

- J-1 Develop strategies for protecting and preserving Burlington's water resources through public education, land acquisition, and regulation.
- J-2 To prevent sediment build-up in streams, work with the DPW on improving stormwater management techniques.
- J-3 Certify more vernal pools in Burlington.

8.11 GOAL K: ACTIVELY MANAGE, MAINTAIN, AND EXPAND CONSERVATION AREAS

Objectives

- K-1 Continue to enhance the Burlington Conservation Steward program
- K-2 Continue to improve and maintain trails in conservation areas.
- K-3 Establish and maintain funding source for land acquisition
- K-4 Work to minimize and eliminate invasive species in the Conservation areas.
- K-5 Encourage donation of land and creation of conservation restrictions in town.
- K-6 Work to eliminate negative human impacts to conservation areas
- K-7 Consider the Community Preservation Act.

8.12 GOAL L: INCREASE PUBLIC AWARENESS AND USE OF OPEN SPACE

Objectives

- L-1 Increase and improve general public outreach efforts through events and communications

- L-2 Increase and improve school-aged residents environmental education and participation
- L-3 Promote year-round use of open space
- L-4 Improve disabled access open space
- L-5 Improve general access to open space

Goal A: Beautify Burlington's public outdoor recreation facilities and public school grounds

Objective	Action	Year	Responsible Party
A-1	Work with community groups and school groups to develop a beautification plan for the Town's outdoor recreation facilities and school grounds Priority: high Funding: town	2011	Recreation
A-2	Work with youth sports organizations, school teams, and adult sports leagues to clean up and beautify athletic fields Priority: high Funding: town	2011	Recreation
A-3	Work with PTO's, school officials, and other school groups to schedule beautification days at all public schools Priority: high Funding: town	2011	Recreation
A-4	Install new entrance signs at all parks and playgrounds Priority: moderate Funding: town	2011	Recreation
A-4	Install new regulation signs at all outdoor recreation facilities Priority: moderate Funding: town	2011	Recreation
A-5	Work with neighborhood groups and local businesses to clean up and beautify the Town's parks and playgrounds Priority: high Funding: town	2011	Recreation
A-5	Continue developing the Adopt-a-Park program Priority: high Funding: town	2011	Recreation

Goal B: Beautify Burlington's Town Common

Objective	Action	Year	Responsible Party
B-1	Establish Handicapped Parking Priority: high Funding: town	2011	Recreation

B-1	Work with Disability Access Commission Priority: high Funding: town	2012	Recreation
B-1	Seek grants for funding Priority: high Funding: town	2012	Recreation
B-1	Upgrade sidewalks Priority: moderate Funding: town and grant	2012	Recreation
B-1	Build ramp from Center street to bandstand Priority: moderate Funding: town and grant	2012	Recreation
B-2	Upgrade electrical and lighting of bandstand Priority: moderate Funding: town and grant	2011	Recreation
B-2	Upgrade landscaping Priority: moderate Funding: town and grant	2011	Recreation
B-2	Install irrigation Priority: moderate Funding: town and grant	2013	Recreation
B-2	Renovate gazebo Priority: low Funding: town and grant	2013	Recreation

Goal C: Provide additional athletic fields for high school sports, youth sports, and adult athletic programs

Objective	Action	Year	Responsible Party
C-1	Construct a new youth soccer field on the Boston Property Priority: high Funding: town	2011	Recreation
C-2	Develop a multi-purpose artificial turf athletic field at the Marshall Simonds middle School Priority: moderate Funding: town and grant	2014	Recreation
C-3	Construct a two-field youth baseball complex at the Mitre Corporation	2012	Recreation

	athletic fields Priority: low Funding: town and grant		
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Goal D: Reduce wear and tear on the Town's athletic fields

Objective	Action	Year	Responsible Party
D-1	Schedule multiple uses of the Burlington High School artificial turf field Priority: high Funding: town	2011	Recreation
D-2	Work with the public schools, youth sports organizations, and adult leagues to increase the number of practices and games scheduled at the new Burlington High School artificial turf field Priority: high Funding: town	2011	Recreation
D-2	Set limits on the use of high impact athletic fields and work with user groups to keep field use within established limits Priority: high Funding: town	2011	Recreation

Goal E: Improve the maintenance of all Town outdoor recreation facilities

Objective	Action	Year	Responsible Party
E-1	Create schedule for using organic standards to maintain all athletic fields Priority: high Funding: town	2011	Recreation
E-1	Request funding for one additional recreation maintenance employee Priority: high Funding: town	2013	Recreation
E-2	Purchase software to assist with the computerization of field maintenance scheduling Priority: moderate Funding: town	2012	Recreation
E-2	Use software to improve the organization of equipment upkeep and personnel scheduling Priority: moderate Funding: town	2012	Recreation

E-3	Resurface existing street hockey and skate board park Priority: high Funding: town and grant	2012	Recreation
E-3	Construct tennis backboard at Rahanis Park Priority: high Funding: town	2012	Recreation
E-4	Repair and expand parking lot at Marvin Field Priority: moderate Funding: town and grant	2016	Recreation
E-4	Repave walking path at TRW Priority: moderate Funding: town and grant	2014	Recreation
E-4	Repair and expand parking lot at Rotary Field Priority: low Funding: town and grant	2016	Recreation
E-4	Reconstruct parking lot at TRW Priority: low Funding: town and grant	2017	Recreation
E-4	Repave the back parking lot at Rahanis Park Priority: low Funding: town and grant	2014	Recreation
E-4	Repave the walkways and parking lot at Simonds Park Priority: low Funding: town and grant	2017	Recreation
E-4	Repave the driveway at Overlook Park Priority: low Funding: town and grant	2014	Recreation
E-4	Seek funding for repaving and improvement projects Priority: low Funding: town	2015	Recreation
E-5	Replace playground equipment at Regan Park Priority: high Funding: town and grant	2014	Recreation
E-5	Repave basketball court at Regan Park Priority: moderate Funding: town and grant	2014	Recreation

E-5	Reconstruct and expand backstop at Rotary Field Priority: high Funding: town	2012	Recreation
E-6	Address drainage issues at TRW Priority: moderate Funding: town and grant	2016	Recreation
E-6	Address drainage issues at Regan Park Priority: high Funding: town and grant	2014	Recreation

Goal F: Utilize the City of Boston property for a variety of active and passive recreational activities

Objective	Action	Year	Responsible Party
F-1	Negotiate an agreement with the City of Boston to use the Boston Property for recreational purposes Priority: high Funding: town	2011	Town Selectmen
F-2	Construct a youth soccer field at the Boston Property Priority: high Funding: town	2011	Recreation
F-3	Construct a playground at the Boston Property Priority: moderate Funding: town	2011	Recreation
F-4	Construct a parking lot at the Boston Property Priority: moderate Funding: town	2011	Recreation
F-5	Develop a walking trail at the Boston Property Priority: moderate Funding: town	2011	Recreation
F-6	Consider Frisbee, exercise stations, disc golf, other activities Priority: low Funding: town	2011	Recreation

Goal G: Develop new outdoor recreation facilities at existing parks

Objective	Action	Year	Responsible Party
G-1	Improve lighting at Marshall Simonds field complex Priority: high Funding: town and grant	2013	Recreation
G-2	Install a picnic shelter at Simonds Park and Rahanis Park Priority: high Funding: town and grant	2014	Recreation
G-2	Construct restroom at Marvin Field Priority: moderate Funding: town and grant	2015	Recreation
G-2	Construct restroom at Rotary Field Priority: moderate Funding: town and grant	2015	Recreation
G-2	Construct new garage at Rahanis Park Priority: moderate Funding: town	2013	Recreation
G-3	Construct a water spray playground at Rahanis Park Priority: low Funding: town and grant	2016	Recreation
G-4	Install new playground equipment at the Human Services Center or where needed Priority: low Funding: town and grant	2013	Recreation
G-5	Conduct a feasibility study regarding developing a public swimming facility in Burlington Priority: low Funding: town and grant	2014	Recreation

Goal H: improve access to Conservation Areas and Recreation Facilities

Objective	Action	Year	Responsible Party
H-1	Research grants, and consult with the Department of Public Works (DPW) to utilize Chapter 90 money Priority: high Funding: town	Ongoing	Recreation

H-1	Work with Planning Board to encourage the construction of sidewalks when applicable as part of new commercial developments Priority: high Funding: town	2012	Recreation
H-2	Research bike trail and walking path organizations for strategy ideas (ex. Bay Circuit Trail Organization). Continue Conservation Commissions input on Bike Path Committees three-phase plan Priority: moderate Funding: town	2014	Recreation
H-2	Take inventory of access between existing open spaces Priority: moderate Funding: town	2014	Recreation
H-2	Solicit the Burlington DPW to be involved in providing input on new sidewalk locations Priority: low Funding: town	2015	Recreation
H-2	Explore creating a regional network of open space, i.e. creating corridors in Burlington to connect similar features in neighboring towns. Monitor land use changes and agendas in neighboring towns Priority: low Funding: town and grant	2014	Recreation

Goal I: Involve the private sector in protecting open space and providing recreation opportunities

Objective	Action	Year	Responsible Party
I-1	Continue to encourage corporations to invest in on-site employee recreation facilities. Post information on Town website Priority: high Funding: town	Ongoing	Recreation
I-2	Create Gifts Catalog to encourage corporations to be involved in the development and improvement of outdoor recreation facilities Priority: high Funding: town	2013	Recreation
I-2	Establish a systematic program and policy for accepting donations of land from the private sector Priority: high Funding: no additional funds needed	2012	Conservation

I-2	Post information on Town website encouraging the donation of conservation restrictions Priority: high Funding: no additional funds needed	2013	Conservation
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Goal J: – Protect Burlington’s water resources

Objective	Action	Year	Responsible Party
J-1	Acquire land surrounding Town water resources when it becomes available Priority: high Funding: grants, Town Meeting funding	Ongoing	Conservation
J-1	Enforce and improve runoff control provisions, including continued development of the Storm Water Runoff Bylaw already underway Priority: high Funding: 2011 warrant article (\$125,000)	2011	Conservation
J-1	Draft Regulations for the Burlington Wetland by-laws Priority: moderate Funding: no additional funds needed	2012	Conservation
J-1	Disseminate information on the impacts of dumping in wetlands, waterways and catch basins Priority: moderate Funding: 2011 warrant article (\$125,000)	Ongoing	Conservation
J-1	Stencil dumping warnings on storm drains (ex – “don’t dump, drains to Ipswich River”) Priority: moderate Funding: no additional funds needed	Semi-annually	Conservation
J-2	Continue to use the vector for sediment removal in streams, rather than dredging Priority: moderate Funding: DPW annual warrant articles	Ongoing	Conservation
J-2	Review areas where sand is washing into streams, and consult with DPW regarding techniques to minimize problem Priority: high Funding: 2011 warrant article (\$125,000), increase to Conservation Dept. staffing budget	2013	Conservation
J-2	Run vernal pool certification workshops through the Burlington Conservation Department in collaboration with the BHS students for	2016	Conservation

	Environmental Action Priority: moderate Funding: no additional funds needed		
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Goal K: Actively manage, maintain, and strive to expand conservation areas

Objective	Action	Year	Responsible Party
K-1	Recruit volunteers for the Burlington Conservation Steward program Priority: high Funding: increase to Conservation Dept. staffing budget	Ongoing	Conservation
K-1	Hold frequent events at the Conservation areas Priority: high Funding: no additional funds needed	Ongoing	Conservation
K-1	Enable communication among the Burlington Conservation Stewards Priority: moderate Funding: no additional funds needed	2012	Conservation
K-2	Work with the Burlington Conservation Stewards on marking and maintaining trails Priority: moderate Funding: Increase land management budget	Ongoing	Conservation
K-2	Maintain regular communication with frequent users of Conservation areas Priority: high Funding: no additional funds needed	Ongoing	Conservation
K-3	Apply for grants as they become available Priority: high Funding: n/a	Ongoing	Conservation
K-3	Continue to propose that Burlington Town Government fund a dedicated Land Acquisition account Priority: high	Ongoing	Conservation
K-4	Increase public awareness of invasive species through education campaign Priority: low Funding: no additional funds needed	2017	Conservation
K-4	Train and use volunteers for invasive species management on Conservation areas Priority: Low Funding: no additional funds needed	2018	Conservation

K-5	Include information on department website on donation of land and Conservation restrictions Priority: moderate Funding: no additional funds needed	2012	Conservation
K-6	Seek the Burlington Police Department's help in increasing enforcement Priority: very high Funding: no additional funds needed	2011	Conservation
K-6	Publicize dumping incidents and their impacts on the environment and encourage neighborhood involvement Priority: moderate Funding: no additional funds needed	Ongoing	Conservation
K-6	Install equipment to deter ATV use, such as signs indicating fines for violation, gates, concrete posts at trail heads etc Priority: moderate Funding: warrant article	Ongoing	Conservation
K-6	Communicate to general public the proper use of Conservation areas Priority: high Funding: no additional funds needed	Ongoing	Conservation
K-6	Seek funding for pet waste stations at Mill Pond Conservation area Priority: low Funding: grant	2017	Conservation
K-7	Increase public awareness of the Community Preservation Act by including information on the Town website Priority: high Funding: no additional funds needed	2011	Conservation

Goal L: Increase public awareness and use of open space

Objective	Action	Year	Responsible Party
L-1	Sponsor frequent outings at Burlington conservation areas Priority: high Funding: no additional funds needed	Ongoing	Conservation
L-1	Redesign, update and launch department website Priority: high Funding: no additional funds needed	2011	Conservation
L-1	Create an annual town-wide environmental activity, possibly in conjunction with Earth Day Priority: moderate	2012	Conservation

	Funding: no additional funds needed		
L-1	Submit occasional articles and press releases regarding activities and information Priority: high Funding: no additional funds needed	Ongoing	Conservation
L-1	In the summer Recreation Brochure, when space is available, present conservation area descriptions, map and information Priority: moderate Funding: no additional funds needed	Annually	Conservation
L-2	Meet with the Burlington Science Center and teachers to offer support and encourage education on environmental topics Priority: moderate Funding: no additional funds needed	Ongoing	Conservation
L-2	Encourage use of conservation areas, particularly those adjacent to schools, for curriculum related student visits Priority: high Funding: no additional funds needed	Ongoing	Conservation
L-3	Promote conservation areas as a year-round resource (i.e. snow shoeing and cross country skiing) in conjunction with education/outreach activities Priority: high Funding: no additional funds needed	Ongoing	Conservation
L-4	Research alternative surfaces and potential location (environmental impact, safety and usability) for handicapped accessible conservation area trail Priority: moderate Funding: grant	2012	Conservation
L-4	Establish handicapped accessible trail at designated conservation area Priority: moderate Funding: grant	2013	Conservation
L-5	Install benches at scenic sites within conservation areas Priority: moderate Funding: grant (or Eagle Scout project)	2017	Conservation
L-5	Install bike racks and increase marked parking areas Priority: moderate Funding: grant	2016	Conservation
L-5	Install signage to improve visibility of trail heads Priority: moderate Funding: grant (or Eagle Scout project)	2013	Conservation

Letters included:

Robert Mercier
Burlington Planning Board
Metropolitan Area Planning Council



TOWN OF BURLINGTON

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Town Administrator's Office

Robert A. Mercier, Town Administrator (781) 270-1635

Thomas F. Hickey, Assistant Town Administrator (781) 270-1634

October 26, 2011



Executive Office of Environmental Affairs
Division of Conservation Services
100 Cambridge Street, Suite 900
Boston, MA 02114

To Whom It May Concern:

I would like extend my strong recommendation and support for Burlington's 2011 Open Space and Recreation Plan update.

The Plan is detailed and comprehensive in scope, and its goals provide an excellent blueprint for Burlington's continued progress in the areas of conservation and recreation. We are hoping this document will provide effective lead in planning for open space and recreation projects and acquisitions over the next five years, as well as improve our standing for state reimbursement programs.

I would also like to acknowledge the outstanding effort involved in the Plan's completion, including the input of residents, local boards, municipal departments, and state agencies. Such collaboration aids in improving the quality of life in Burlington for current and future generations, and helps set the stage for future development to occur in a sustainable manner.

Sincerely,

Robert A. Mercier
Town Administrator

RAM/pg

cc: Conservation Department

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TOWN OF BURLINGTON

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Celia Riechel
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

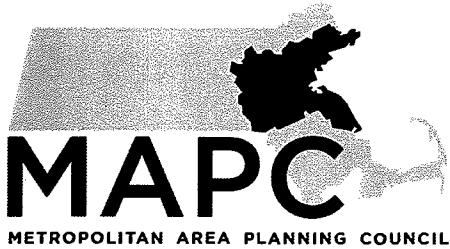
Dear Ms. Riechel:

On behalf of the Town of Burlington Planning Board we are writing to express our wholehearted support for the 2011 Burlington Open Space and Recreation Plan.

The Plan highlights Burlington's greatest recreational and conservation assets. By addressing the long-term preservation and use of these places, the Open Space and Recreation Plan underscores their sustained importance within Burlington.

Best Regards:


Paul F. Roth, Chairman
On Behalf of the entire Planning Board:
Joseph A. Impemba, Vice Chairman
Paul R. Raymond, Member Clerk
John A. DeFrancesco
Ernest E. Covino JI.
Jayne L. Hyde
Ann M. Cummings



June 1, 2011

Ms. Jodie Wennemer, Conservation Assistant
Town of Burlington
25 Center Street
Burlington, MA 01803

Dear Ms. Wennemer:

Thank you for submitting the Town of Burlington 2011 Open Space and Recreation Plan to the Metropolitan Area Planning Council (MAPC) for review.

The Division of Conservation Services (DCS) requires that all open space plans must be submitted to the regional planning agency for review. This review is advisory and only DCS has the power to approve a municipal open space plan. While DCS reviews open space plans for compliance with their guidelines, MAPC reviews these plans primarily for their attention to regional issues generally and more specifically for consistency with *MetroFuture*, the regional policy plan for the Boston metropolitan area.

The following are MAPC's recommendations for amendments to the Burlington Open Space and Recreation Plan:

Environmental Justice (EJ) – We note that the plan does not thoroughly address the issue of environmental justice as required by the 2008 guidelines for preparing an open space plan. The environmental justice guidelines are spelled out in more detail in the 2008 Open Space and Recreation Planners Workbook. The plan includes a map of environmental justice populations but there are only two references in the text of the plan regarding the demand for cricket and lacrosse due to a growing diversification of the population. There is no demographic data on race and ethnicity that describes EJ populations.

In brief, the guidelines indicate two levels for addressing EJ issues. If a municipality includes EJ populations as defined by the state (for more information, please see the list of communities at <http://www.mass.gov/mgis/ej/htm>), you must include the data/information specified in Section 2 (Introduction), Section 3 (Community Setting), and Section 5 (Inventory of Lands of Conservation and Recreation Interest). Burlington does include EJ populations. You should consult the workbook for more details on these requirements and/or discuss these requirements with the staff at the Division of Conservation Services. The workbook is on-line at http://www.mass.gov/envir/dcs/pdf/osrp_workbook.pdf.

Consistency with *MetroFuture*

MetroFuture is the official regional plan for Greater Boston, adopted consistently with the requirements of Massachusetts General Law. The plan includes goals and objectives as well as 13

detailed implementation strategies for accomplishing these goals. We encourage all communities to become familiar with the plan by visiting the web site at <http://www.metrofuture.org>.

The Burlington Open Space and Recreation Plan does not specifically mention *MetroFuture*. We encourage communities to include a brief paragraph about *MetroFuture* in Chapter III under Regional Context. Ideally this paragraph should explain ways in which Burlington's Open Space and Recreation Plan will help to advance some of the goals and implementation strategies that relate specifically to open space, recreation, and the environment generally.

In the case of Burlington's plan, this shouldn't be too hard to do since we see many positive connections between your plan and *MetroFuture*, particularly in regard to Strategy 7A: *Bring Strategic and Regional Perspectives to Local Open Space Planning*. The Burlington plan includes a discussion of regional resources including potential bikeway linkages to surrounding communities and the issues related to Mary Cummings Park which lies within Burlington and Woburn. Burlington has also adopted several smart growth by-laws including an Open Space Residential Development by-law and a Planned Development District bylaw. These are consistent with *MetroFuture*.

Adoption of the Community Preservation Act (CPA) is a key strategy recommended by *MetroFuture*. Although Burlington has not adopted the CPA it is mentioned as a possible funding source in the open space and recreation plan. We encourage Burlington to pursue adoption of the CPA and we would be glad to work with the town to discuss how CPA can help you to achieve your goals, and how you might build support for the program. Unfortunately, we must also like to alert the town to the fact that state matching funds for CPA communities have declined precipitously in recent years. MAPC has been actively engaged in efforts to address this decline through legislation. We encourage you to support *An Act to Sustain Community Preservation (HB765/SB 1841)*, the CPA reform bill that has been filed in the Legislature by Senator Cynthia Creem (D-Newton) and Representative Stephen Kulik (D-Worthington). This legislation would slightly broaden the eligible uses of CPA funds (at local discretion), and ensure that matching funds will not fall below 75% of locally-raised revenues. Please contact your state legislators to let them know of Burlington's support for this critical legislation.

Burlington's Open Space and Recreation Plan is very thorough and carefully considers the regional context for open space planning. It should serve the town well as it continues its efforts to preserve open space and provide for the recreational needs of its residents.

Thank you for the opportunity to review this plan.

Sincerely,



Marc D. Draisene
Executive Director

Cc: Melissa Cryan, Division of Conservation Services
 Anthony Fields, MAPC Representative, Town of Burlington

American Rivers (2003) America's Most Endangered Rivers of 2003, website accessed at http://pa.lwv.org/wren/library_PDF/MostEndangeredRivers2003.pdf in November 2004.

Castle, Dixon, Grew, Griscom, and Zietz, (1976) Structural Dislocations in Eastern Massachusetts, Geological Survey Bulletin 1410, United States Government Printing Office: Washington.

Department of Housing and Community Development (DNCD) (2004) Burlington, website accessed at www.mass.gov/dhcd/iprofile/048.pdf in December 2004.

Eastern Forest Environmental Threat Assessment Center

Environmental Surveys and Assessments (1990), An Inventory of Wetlands and Waterbodies in Burlington, Massachusetts.

Executive Office of Environmental Affairs, Division of Conservation Services (2000) Massachusetts Outdoors 2000! Statewide Comprehensive Outdoor Recreation Plan, website accessed at http://www.mass.gov/envir/dcs/pdf/SCORP_Chapter1.pdf in January 2005.

Executive Office of Environmental Affairs, Division of Conservation Services (2001) Open Space Planner's Workbook, website accessed at <http://www.mass.gov/envir/dcs/pdf/OpenSpacePlanners.pdf> in November 2004.

Fogelberg, J. (1976) A History of Burlington, Burlington Historical Commission.

Haines, A. and Vining, T.F., (1998), Flora of Maine, V.F. Thomas Co. P.O. Box 281, Bar Harbor Maine.

Hatch, Norman (ed.) (1991), The Bedrock Geology of Massachusetts, USGS Professional Paper 1366-E-J, Washington: US Government Printing Office.

Interdisciplinary Environmental Planning. (1977). *Task B - Land Use and Land Capability Study of the Conservation and Recreation Plan, Conservation Commission, Town of Burlington.*

Interdisciplinary Environmental Planning. (1977). *Task C -Management of Wildlife Resources of the Conservation and Recreation Plan, Conservation Commission, Town of Burlington.*

Ipswich River Watershed Association, (2004) website accessed at <http://www.ipswichriver.org/river.html> in January 2005.

Lancaster, R., (1990) Recreation, Park and Open Space Standards and Guidelines, published by the National Recreation and Parks Association.

Massachusetts Department of Environmental Protection (2003) Source Water Assessment and Protection (SWAP) Report for Burlington Water and Sewer Division, released 6/30/03, accessed at www.mass.gov/dep/ on 11/23/04.

Massachusetts Division of Fisheries and Wildlife (2002) Official State Rare Species List, Natural Heritage and Endangered Species Program, website accessed at www.mass.gov/dfwele/dfm/nhesp/nhrarelinjks.htm accessed May 2010.

Massachusetts Emergency Management Agency, Earthquakes in New England.

Massachusetts Institute of Social & Economic Research (MISER), online database accessed at www.umass.edu/miser in November 2004.

Massachusetts Society for the Prevention of Cruelty to Animals (2001), Living with Wildlife: About Human Wildlife Conflict, website accessed at www.livingwithwildlife.org/aboutus/conflicts.html on February 10, 2005.

Metropolitan Area Planning Council (MAPC) (2004) Comprehensive Economic Development Strategy, submitted to the Economic Development Administration.

Metropolitan Area Planning Council (MAPC), (2004) Burlington Community Development Plan, prepared for the Burlington Planning Board.

National Recreation and Parks Association (NRPA) (1996) Parks, Recreation, Open Space and Greenway Guidelines.

Skehan, J. (2001), Roadside Geology of Massachusetts. Mountain Press Publishing Company, Missoula, Montana.

Sorrie, B.A. and Somers, P., (1999) The Vascular Plants of Massachusetts: A County Checklist, Massachusetts Division of Fisheries and Wildlife, Natural Heritage & Endangered Species Program.

Town of Burlington (2004) Annual Water Quality Report: Water Testing Performed in 2003.

United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) (1995) Middlesex County Massachusetts Interim Soil Survey Report, published by the Middlesex Conservation District, Fourth Edition.

Vanasse Hangen Brustlin, Inc. (2003) Burlington Bikeway Transportation Enhancement Application, submitted to the Metropolitan Area Planning Council by the Town of Burlington, Massachusetts.

<http://www.burlington.org/clerk/archives/pubs/histcomm/survey/survey.htm>

Lancaster, R., (1990) Recreation, Park and Open Space Standards and Guidelines, published by the National Recreation and Park Association