SECTION 1: Plan Summary

The Open Space and Recreation working group was formed in spring 2004 with the assigned task of revising the Open Space & Recreation Plan. Members of the committee represent: the Board of Selectman, the Planning Board, the Department of Public Works, the Board of Park Commissioners and the Conservation Commission. Most of this work would focus on establishing new and revising previously expressed goals and objectives.

The primary impetus for this came from the Parks Department, the primary caretaker of Milton's open space. Department of Conservation Services (DCS) approved plans are an eligibility requirement for participation in many open space grant programs.

Efforts by the Town to formulate and establish an Open Space and Recreation Plan have occurred intermittently over the last thirty years. The Town authored plans in 1994, 1989 and 1979. In each case, plans were improved with aggressive recommendations to protect and conserve the history of the town, as growth and development required careful attention for unintended consequences.

This plan provides direction for the various Boards and Committees to consider in their official capacity as decision-makers. Reliance on the plan's recommendations will ensure a consistent open space policy regardless of political venue. The final document is intended to balance future growth and development with the preservation of Milton's significant open space and natural resources.

The goals, objectives and recommendations of the plan were shaped by the following broad principles:

- Protect Milton's open spaces, including ponds, river fronts, streams and brooks, and woodlands, in a natural state that can be enjoyed by future generations;
- Ensure that playing fields and other recreational facilities support the needs of the population;
- Continue to make residents aware of Milton's open space, waterfront, trails, natural resources and recreational opportunities;
- Maintain and develop safe walking and bicycling routes to decrease vehicle congestion and promote good health; and
- Pursue projects to improve the water quality of local water bodies

SECTION 2: Introduction

2A. Statement of Purpose

In March 2004 the Town Planner created a working group to update Milton's Open Space and Recreation Plan by the incorporation of updated information and current planning objectives. The final document is intended to guide growth and development so as to preserve significant historical attributes, open space and natural resources.

"Open space" is defined as undeveloped land assets, whether in public or private hands, that have natural resources, conservation value, preservation interest or recreational potential. While preservation of existing assets is our primary goal, this plan also identifies parcels that could become available in the future. Consideration will be given to approaches including zoning and taxation that could be employed by the Town to plan for the best possible use of such property should it become available.

2B. Planning Process/ public Participation

Past Planning Efforts

Efforts by the Town of Milton (the town, or Milton) to formulate and establish an Open Space and Natural Resources Management Plan were first recorded previous to 1989. Since then, revisions and updates reflecting evolution of public sentiment and current inventory of open space and natural resources have been documented in 1989 and 1994. In each case, plans included aggressive recommendations to protect and conserve the history of the town, as growth and development required careful attention for unintended consequences. These plans were authored by Milton's Engineering Department, with the input of pertinent Boards and Commissions.

Evolution of Planning Efforts and Sponsoring Resources

In 2001 and 2002, through the impetus of then-Governor Cellucci's Executive Order 418 (EO 418), funded by the Executive Office of Environmental Affairs, the Department of Housing and Community Development, the Department of Economic Development and the Executive Office of Transportation and Construction, Milton received \$30,000 to develop a Community Development Plan (CDP). Addressing Open Space and Natural Resources was one of four major components that Milton was required to consider in the plan. By spring 2003, the town had set out to renew its Open Space & Recreation Plan utilizing the EO 418 process and it's CDP as starting points.

In the mid 1970's Milton economized its personnel by reducing the Town Planner position to half-time and combining it with the Town Engineer's position. With the retirement last year of the Town Engineer, and other personnel changes in the Department of Public works, restoration of a full-time planner position became possible without any net increase in costs to the Town. This change was enthusiastically supported by the Planning Board, the Board of Selectmen and other Town boards and committees including the Warrant Committee as well as Town Meeting. Volunteer committees such as the Milton Village, Central Avenue Business District Revitalization Committee especially welcomed this change as it allowed them to focus on their revitalization recommendations and relieved them of their burdensome planning coordination function.

The Town Planner has taken the lead in preparing this open space plan as well as coordinating the effort with other planning initiatives and will follow through on recommendations to ensure that this document does not simply sit on a shelf after completion.

Recent & On-going Planning Activity, Data & Assembling of Facts & Public Sentiment

In response to public demand, and reaction by the Planning Board to increased development activity and development prospects in the Town, officials created the Milton Village-Central Avenue Revitalization Committee, a group of appointed citizens reporting to the Board of Selectman, designated with the role of researching planning solutions for the revitalization of Milton's commercial districts in the Lower Mills area of Town. In addition, the Planning Board contracted MAPC for some specific zoning initiatives and to provide direction and assistance in the development of the EO 418 Community Development Plan. These resources, although charged with specific planning objectives, have complemented the Open Space and Recreation Plan.

As identified by the EO 418 process the Planning Board and MAPC held public forums to discuss four significant areas of planning need: 1) Open Space and Natural Resources, 2) Transportation, 3) Housing, and 4) Economic Development. At these forums there was been much discussion of what to do with existing resources. The Town used this information in the creation of its Community Development Plan.

From the discussion of open space and natural resources at the forum the following broad areas of interest were identified: various planning considerations, history, public preferences, clarification of assets and resources, zoning remedies and general information not previously recorded.

To take advantage of this information, the town created the Open Space and Recreation working group with the assigned task of revising the Open Space & Recreation Plan. Members of the committee represent:

- Board of Selectman
- Milton Planning Board
- Department of Public Works
- Board of Park Commissioners
- Conservation Commission

The group also assembled a survey which helped inform the working group as we prepared the update. All of the results, along with the public comments on the plan, can be found in Section 10 of this report.

The Future

With the Town's acceptance of the EO 418 Community Development Plan, complemented by this comprehensive update of the Open Space and Recreation Plan, Milton can begin to implement the recommendations in this plan.

New zoning requirements for large estates, private undeveloped lands and even residentially and commercially developed properties can be drafted and submitted for adoption proactively to support the plan. Such zoning requirements should be crafted in a

manner to encourage and allow development while encouraging preservation in other areas.

This plan also will provide direction for the various Boards and Committees to consider in their deliberations. If decision-makers rely on the plan's recommendations, our residents will have increased confidence that their interests have influence and will be encouraged to become more involved in the improvement of the Town.

With a plan in place, Milton can better represent the town's needs to the 101 cities that are part of MAPC, allowing for better defense of our concerns and objectives, and/ or better consideration and possible integration of our goals and objectives.

In the end, we have created a tool for better planning that will result in a friendlier town for growth and preservation, as the pattern for Milton's development will have been clearly outlined and made available to anyone interested in Milton.

Section 3: Community Setting

Regional Context

Milton is situated in the Greater Boston Area, which has excellent rail, air, and highway facilities. State Route 128 and Interstate Route 495 divide the region into inner and outer zones, which are connected by numerous "spokes" providing direct access to the airport, port, and intermodal facilities of Boston. While the Town of Milton abuts two major cities, the town itself is decidedly suburban in character. To the north is Boston while to the east lies Quincy. Because of the unique nature of the Town, Milton falls within two subregions of the regional planning agency, the Metropolitan Area Planning Council (MAPC). Because of its geographic proximity to Boston (and Quincy), Milton is a member of the Inner Core Committee (ICC), but because of the distinct character difference it is also a member of the Three Rivers Interlocal Council (TRIC). To the south, Milton borders the Towns of Canton and Randolph. **Please see Map 1b: Growth and Development Patterns.**

This dichotomy, close proximity to but distinct character from Boston has been the defining element in the development of the town for over a century. The town first took advantage of its zoning powers in 1922, zoning the vast majority of the town single-family residential, in three districts of varying minimum lot sizes. Two extremely small commercial areas, vestiges of Milton's industrial past were preserved at that time, representing less than 3% of the town's land mass. In recent years the Town has begun revitalization initiatives and other economic development strategies to reduce to the extent possible the residential property tax burden.

Within the corporate limits of the Town there are significant natural resources benefiting not only the Town but the region. The Department of Conservation and Recreation (DCR, formerly the Metropolitan District Council) controls over 2,000 acres (approximately 25% of the town) through its ownership of the Neponset River and Blue Hills Reservations. These Reservations provides valuable wildlife habitat to a number of rare wildlife species sites. Houghton's Pond, located in the Blue Hills Reservation, is an important source of freshwater swimming for the greater Boston area. The Blue Hills Reservation is also an attraction for hikers, mountain bikers, horse riders and even cross country and downhill skiers. Many individuals come to use the canoe portal near Paul's Bridge located in the Neponset River Reservation.

Milton is an upper-income bedroom community with many significant natural and historic sites. A build-out analysis conducted in 2000 under the auspices of Executive Order 418 placed the town beyond the 90 percent mark; however, its desirable location assures continued pressure on remaining land.

History

Milton was settled in 1640 and incorporated in 1662; of course Native American settlements existed here long before that time. Milton grew from an industrialized center along the Neponset River to an upscale residential suburb of Boston. The Town has an old New England quality that is derived from its early settlement and its desire to preserve its history. Milton's history is tangible because historical structures and landmarks are visible and easily accessible. The preservation of this history is essential to support the New England character of the Town.

Milton's first settlers were farmers looking to be self-sufficient on their own land. In 1636, Kitchmaken, Chief of the local Native American tribe, deeded to Richard Collicut for "twenty fathoms of wampum" (A History of Milton; Edward Pierce Hamilton; 1957; pp. 12) all of what is now Milton. The land was acquired to serve as a plantation for Dorchester. Local Native Americans provided for labor on the farms and later in the mills along the Neponset River.

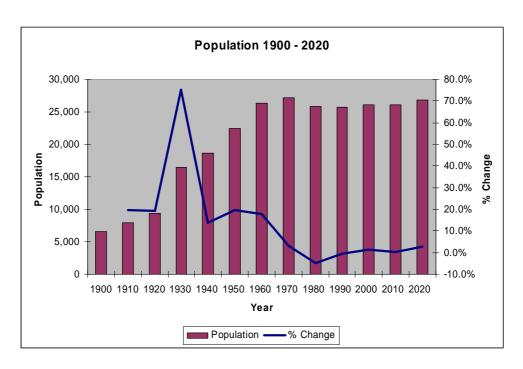
Throughout the 1700's Milton had considerable growth directly related to the mills along the Neponset River at the head of tidal water. A grist mill was constructed by Israel Stoughton in 1634 along with the first bridge to cross the Neponset River. This bridge opened the south up to settlers and was incorporated in the Bay Path from Boston to Plymouth. Later a powder mill and a fulling mill were constructed along the Neponset.

During the 1800's Milton's upland farms and woods attracted wealthy Bostonians seeking summer homes, which in the course of years became winter homes as well. A huge investment in open space was made by the Commonwealth of Massachusetts when it purchased most of the land now encompassing the Blue Hills Reservation from private landowners in the 1890's. The majority of this land consisted of rolling hills, which was accessible to Boston-area residents by streetcar and was frequently used for horseback riding, swimming, hiking and picnicking.

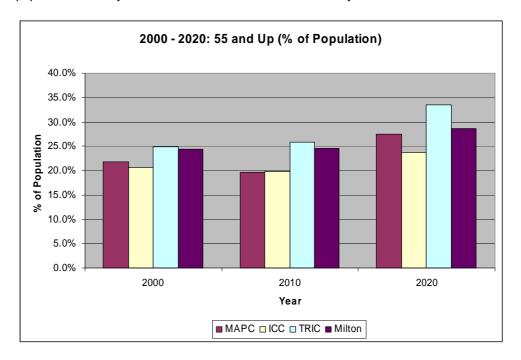
The establishment of streetcar lines fueled a rapid expansion of residential development between 1870 and 1915. Milton grew into essentially the community it is now, a wealthy streetcar suburb retaining a good many 19th century country houses, estates, and early 19th century workers' housing. "By the 1900's Milton was a fully developed suburban town of greater than average wealth" (Ibid, 57). Industry diminished. The population continued to expand and the demand for homes increased.

Population Characteristics

As the chart below demonstrates Milton's population has remained relatively stable since the 1960's. MAPC Population Forecasts were used to predict population for the years 2010 and 2020. This forecast incorporates data from the build out analysis conducted under EO 418 which predicted about 800 remaining lots. Given the current pace of development (about 20 new units a year) it would appear that the overall population of the community will remain relatively stable.



Perhaps one of the most important factors that has and will continue to shape Milton is that of an aging population. The chart below depicts how Milton already has an over 55 population of nearly 25% which will increase to almost 30% by 2020.



Like many towns with aging populations, Milton will have to ensure that there are affordable housing to accommodate the unique needs of senior citizens. Census 2000 data demonstrates that seniors comprise approximately 36% of all renters, yet represent over half of renters who pay over what is considered affordable (greater than 30% of income). (MAPC, 2004)

Growth and Development Patterns

1. Patterns & Trends

The Town of Milton's transformation from a pre-industrial rural farming community into a suburban bedroom community began in the late 19th century and continued throughout the 20th. Since the advent of zoning in 1922, with few exceptions, all development has been single-family detached homes. A trend that began in the latter stages of the 20th century saw the Town create almost 1,000 multi-unit age-restricted senior-housing units. In 2001, Milton adopted a Planned Unit Development bylaw to allow for mixed use developments in the Milton Village Business District.

According to the latest Build-Out Analysis conducted by MAPC in 2000, the Town has developable land sufficient to support about 800 homes. Under current zoning, this leaves the Town over 90% "built-out." Since the year 2000 approximately 36 buildable lots have been created, over 30 of them using the Approval Not Required subdivision process, also known as ANRs. While this trend will continue, the build-out analysis concluded that there are a number of large parcels between 10 and 20 acres that may be subdivided.

Although some see the large amount of State-owned parkland (approximately 25% of the Town's land area) as a mixed blessing, it provides Milton residents with convenient access to open space and recreation facilities. The challenge is to assure residents that the quality (and quantity to a lesser extent) of Town-owned open space remains at an appropriate level. Of particular importance will be facilities that meet the needs required by active recreation, like youth sports fields, tot-lots and pocket parks.

Given the level of build out and the resultant expected stability of future development, the Town of Milton is well situated to exceed the expectation of its residents.

2. Infrastructure

a) Transportation

Milton's transportation system relies mainly on the road network and as such is overwhelmingly auto-oriented. Public transportation is provided at the periphery of town, through the MBTA's Ashmont and Braintree lines, and the train service from Hyde Park and Readville, but this service must for most residents it must be accessed by automobile. One MBTA bus line does run hourly service from Mattapan station to Quincy Center station, through the center of Milton along Brook Road, Pleasant Street and East Milton Square.

Milton can handle its transportation requirements over the next several years with a minimum of impact to its existing system. The northern part of Town has a highly developed road system with a number of streets four lanes wide. Furthermore, the Town's collector streets, such as Canton Avenue, Brook Road, Central Avenue and Randolph Avenue are able to augment the roads with higher capacity to further handle the Town's traffic volumes.

Two major expressways, Routes 24 and 95 converge on Milton to the south, while to the east, Route 3 continues north from Route 128 cutting through East Milton Square. Route 24 terminates at 128 and there are no plans to continue the roadway through Milton. It does, however, contribute a large amount of traffic to Routes 28 and 138. These arterial highways pass through Milton and cause residents significant headaches during morning

and afternoon commuter hours. Route 95 also contributes to commuter traffic to these highways. The Southeast Expressway (Route 3) contributes flow to East Milton Square since it is the major route for South Shore residents to commute to Boston.

Recent planning efforts have been directed towards enhancing the pedestrian and bicycle amenities throughout the town. Existing pathways next to Pine Tree Brook have received increased maintenance and were recently enhanced by the construction of a wooden bridge at Popes Pond by Northeastern University engineering students as part of a volunteer service project, allowing pedestrians and bicyclists a scenic route around the pond as well as providing a quicker route to school for students and from one neighborhood to another. The idea of being able to walk or ride safely from any point in town to any other has also led to the Town to pursue funding for a dedicated bike path along Central Avenue which would connect with the existing Department of Conservation and Recreation bike path in Milton and Dorchester. Approved under the pilot Footprint Roads Program, the Central Avenue project still needs the blessing of MassHighway before it can be funded. The Town hopes to continue to take advantage of older streets with excessive right of way widths, like Central Avenue, Brook Road, Blue Hill Avenue and the Blue Hills Parkway, to allow cyclists and pedestrians safer access.

b) Public Water System

The Milton water system consists of a network of distribution mains supplied through three connections to the MWRA water system. The Town System comprises of two separate networks: a low service system and a high service system. The low service system supplies the northerly section of Milton, while the high service system supplies the southerly section.

Water is supplied to the Milton low service system through two connections from the MWRA high service system. There is an additional MWRA connection and a connection to the Quincy water system both of which are normally closed and utilized only during emergencies.

Water is supplied to the Milton high service system from the MWRA extra high service system. There is an additional connection from the Boston Water system for emergency use only. The Town's high service system includes two reservoirs, which provide reserve storage for maximum water use and fire fighting demands.

The Town of Milton's municipal water system consists of approximately 126 miles of water mains, 57% of which are cement lined. Over 99% of all homes in Milton are connected to the municipal water system. The Town continues to eliminate the lead water service connections in the Town, and the 113 remaining are scheduled to be completely replaced by 2005. The Department of Public Works also continues to update the municipal water system and mains throughout the Town. Three major water projects were completed in the summer of 2004, including the replacement of 2500 feet of a 12" water main beneath Eliot Street, from Central Avenue to Valley Road.

c) Public Sewer System

There are currently over 7800 local sewer connections in the Town of Milton, and over 93% of residents are connected to sewer. The MWRA services the community with just over seven miles of trunk lines, while the Town contains approximately 82 miles of service mains. The Town also operates seven lift stations with varying flows.

The Town is of Milton is currently in Year 2 of its ten-year sewer rehabilitation plan. The plan involves the relining and sealing of sewer mains throughout the Town to reduce infiltration of groundwater into sewers, as well as exfiltration of sewage. Over ten years, the Town is scheduled to rehab nearly all of its sewer mains throughout Town.

d) Public Drainage System

The Town of Milton's drainage system consists of approximately 77 miles of drain pipe throughout the Town. The majority of stormwater collected in Milton discharges into Pine Tree Brook or Unquity Brook, eventually making its way into the Neponset River. The Town currently takes many steps to improve drainage throughout Town. Catch basins are cleaned of sediment and debris on a three year cycle and also on an as-needed basis. The Town is also preparing to start its ten-year stormwater master plan, which aims to clean sediment out of drainage trunk lines, as well as replace damaged or grossly undersized drain pipes. Over ten years, the Town hopes to hit all of the major flood prone areas throughout Town, and rehabilitate nearly 50% of the drain pipes in Milton.

Section 4: Environmental Inventory & Analysis

A. Geology, Soils and Topography

Milton enjoys diverse geological features that include the Blue Hill Range as well as the Neponset River and its tidal marshes to the north. Significant geological attributes of these features were protected for future generations at the end of the 19th century, when the Commonwealth acquired private land for the Blue Hills Reservation and Neponset River Reservation and during the 20th century as the MDC (now the DCR) added additional land in Milton to its reservations. Milton and its topographic features are mapped on USGS quadrangles Boston South and Blue Hills.

The topography of Milton is dominated by the Blue Hills range. The Blue Hills rise in the southwest and slope west into the Neponset River and north towards the ocean. Milton climbs from sea level along the coast to a high of 640 msl (mean sea level) feet on top of Great Blue Hill (Boston Base).

The dominant soil series in Milton are Hollis, Paxton and Woodbridge as established by the Soil Conservation Service. The soils are considered a fine, sandy loam with a varying degree of stoniness. The soils, because of their texture and permeability, are subject to minor erosion and sediment problems. Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. Bedrock is at or near the surface at locations throughout town, contributing to relatively high rates of runoff.

B. Landscape Character

As an urban community with substantial protected open space, Milton is unique in the Commonwealth of Massachusetts. Not only does the town have the most privately and publicly conserved land within twenty miles of the City of Boston, but it also benefits from many scenic points of interest tied to its history. The Blue Hills Reservation, the Neponset River Reservation, Hutchinson Field and Forbes Woods enjoy the Commonwealth's protection, and provide quite varied habitats.

In addition to the Reservations described above the Town were tributaries, ponds, wetlands, parks, public and private conservation lands, and undeveloped street corners. In the Blue Hills section of Milton, many additional acres have been privately conserved, including an 80 acre parcel within Camp Sayre, owned the Boy Scouts of America. Adjacent to this camp, the Town of Milton owns 34 acres of forest and wetlands, housing a portion of Pine Tree Brook and a dam created as part of a flood control project. The surrounding residential community particularly along the Canton line helps preserves the countrified feeling of the Blue Hills Reservation with large, mostly wooded lots, many set well off the road and bordered by stone walls dating back to our colonial forebears. Well-preserved farm houses and antique homes, such as the Suffolk's Resolves House and the Eustis Estate add historic appeal.

Milton's old New England ambience is especially evident in its town hall district, despite the decidedly 1970's architecture of the Town Hall itself. The municipal offices are flanked by the original First Parish in Milton and the First Congregational churches. A small green and spacious gazebo help tie this scene together, and provide a segue to the nearby Milton Public Library, built in 1904; the spectacular Milton Academy campus; and the tranquil landscaped grounds of the Milton Cemetery. Throughout the town of Milton, street

corners and monuments have been preserved to maintain the town's charming historical character.

Milton Hill is a glacial drumlin 140 feet high that carries the old Bay Path, today's Adams Street, over the northeast edge of town from Boston to Quincy. The Hill's north side, distinguished by spacious antique homes, overlooks the Neponset as it plunges into tidewater past the Baker Dam, the Baker Chocolate Factory, Milton Landing and the antique red brick former Milton Police Station now housing the Milton Yacht Club and boatyard. The Residences at Milton Landing, a newly built residential and retail development sits on the former Hood warehouse site at Milton Landing. Landscaping associated with the development features welcoming paths and native plants designed to enhance the Wharf's relationship to the river, the adjacent town-owned park and historic structure housing the Milton Yacht Club. Here the Neponset leaves its narrow, wooded corridor and broadens into the marshes of the estuary. Canoeists and boaters are often seen on this stretch of the river, although travel upstream past the Baker Dam requires a portage through the densely-developed mill district between the dam and the MBTA Bridge.

Downstream from the landing the Neponset is bordered by three large conservation properties along its curve under the north slope of Milton Hill. The 15-acre Hutchinson's Field, which once belonged to the commonwealth's last royal governor, is a mowed meadow in its upper portion along Adams Street, and has extensive views of the five-milelong estuary and Boston Harbor. It has been owned and managed by the Trustees of Reservations since the 1890's. A bit further downstream, just beyond the river's turn to the north, is the 25-acre Forbes Woods, a mostly forested parcel acquired by the state for open space in 2002, and featuring historic gardens and a magnificent stand of native beeches. It is bordered on the east by the protected 8-acre Heath parcel, also wooded, where Massachusetts' largest black oak was recently documented. Much of Milton's small amount of commercial land is situated just southeast of Milton Hill, leaving the remaining eastern and southern portions of the town to fairly dense residential development. This area is punctuated by Cunningham Park and the soon to be refurbished Collicot and Cunningham Schools. Cunningham Park, managed by a private trust, enhances the surrounding residences with several acres of hemlock dotted paths, ball fields, a public pool, a meeting center, tennis courts and playgrounds. Indeed, Milton is blessed to have this privately funded sanctuary.

Circling to the southeastern portion of Milton, the Quarry Hills area and its adjacent wetlands form a distinctive barrier to development along Route 28, as well as a relief from the row of neighborhoods lining the highway. Once the town's landfill, this land has since been capped and developed as one third of the Granite Links Golf Club.

Milton's primary asset, its beautiful, protected open space, is also its primary financial burden. Only a tiny fraction of the Town is commercially zoned. With a commercial tax base of less than 5 percent, there are insufficient revenues to support land protection for environmental or open space purposes except in cases where law, public funds or large private donations intervene. Careful planning, creative thinking and private as well as public support is required to assure that the long term interests of the Town are protected from an environmental and open space standpoint as well as an economic one, given these circumstances.

During a public forum held November 13, 2003, Milton citizens protested the further loss of large estates and their associated woodlands, wetlands and gardens. Participants regretted that areas noted for their historic architecture and landscapes have been developed with new homes sporting styles and scale of architecture out of character with the Town's New England ambience. Suggestions were made that several areas in Milton

be designated as local historical districts, and therefore be subject to some sort of minimal architectural standard.

Currently the Town has a type of historical district that has no enforcement component to it. The Historic Commission is investigating the creation of a Demolition Delay Bylaw to protect historic structures from being torn down without public review.

Indeed, the citizen-lead efforts to protect Hutchinson Field, Forbes Woods and other natural areas speak to many people's desire to protect the character and beauty of Milton's natural heritage.

C. Water Resources

C1. Boston Harbor Watershed and Neponset River Watershed

The Boston Harbor Watershed surrounds Boston Harbor and encompasses the Mystic River Watershed to the North and the Neponset, Fore, Back, and Weir River Watersheds to the south as well as the Harbor coastline and all the Harbor Islands. Within a concentrated 293 square miles of land area, the watershed sustains over one-sixth of the commonwealth's population, more than any other watershed in Massachusetts. According to the Executive Office of Environmental Affairs, the Watershed is approximately 34% urban, 27% forested and 3% wetland (including salt marsh habitat). ⁱ

Although we recognize the critical relationship of all the watersheds, this plan focuses primarily on Milton's relationship with the Neponset River Watershed. The Boston Harbor Watershed is 293 square miles, and Milton's influence upon it resides primarily in the town's care and efforts on behalf of the Neponset River and its environs.

C2.0 Surface Water

C2.1 Neponset River

Twenty thousand years ago glaciers retreated at the end of the last Ice Age, leaving behind a landscape of rich habitats along the Neponset River's shores. As far back as ten thousand years ago, this wealth of plant, animal and aquatic life attracted early Native Americans to the river's shores, who lived off the fruits of the forest in autumn and winter, and the bounty of herring, shad and smelt that teemed in the Neponset Estuary each spring on their way upstream to spawn.ⁱⁱ

The Neponset River, which originates about twelve miles southwest of Milton in Foxborough, enters town at the Dedham border near the lower end of the 8,000 acre Fowl Meadow and Ponkapoag Bog Area of Critical Environmental Concern (ACEC). This large basin, dominated by freshwater wetlands, floodplains, aquifers, archaeological sites and recreational amenities, includes over 2,300 acres of publicly owned open space. The river quickens as it exits the basin, and for most of the next six miles occupies a narrow, wooded channel forming the boundary between Milton and Boston's southern limits, including Readville, Hyde Park, Mattapan and Dorchester. Here the banks are crowded by fencing and dense development and the river itself is channelized and fragmented by the two historic dams, the Tileston and Hollingsworth Dam in Hyde Park and the Walter Baker Dam in Lower Mills. Below the Baker Dam the river expands again into the Neponset River Estuary ACEC, which encompasses 1,260 acres of salt marsh, floodplain, creeks, open water and clam flats. It is home to one of the commonwealth's strongest

rainbow smelt runs, some of Boston's largest intact salt marshes, and boasts the Neponset River Greenway multi-use trail.

With construction of the second of these dams in 1634, the Neponset River served as an important source of water power for the fledgling manufacturing center that established itself in the Lower Mills area. However, two of New England's most productive shad and herring runs were disrupted by the dams.ⁱⁱⁱ

The Neponset River Watershed Association (NepRWA), a private non-profit advocacy group, works with government, business and private interests to improve the quality of water for drinking, recreation, industrial needs, fisheries and wildlife habitat. NepRWA coordinates volunteer water monitoring efforts along the waterways in Milton and produces regular reports on water quality which are used by the Town. According to NepRWA, water quality along the Neponset has improved dramatically. The river and its tributaries are at their cleanest in over 100 years. Nevertheless, the Office of Environmental Affairs listed tested segments of the river as non-support for fish consumption, primary and secondary contact and aesthetics in the Boston Harbor Watershed 1999 Water Quality Assessment Report. Trash, debris, leaking sewers and stormwater runoff continue to plague the Neponset and its tributaries, while Polychlorinated Biphenyl (PCB) laden sediment remains in the silt behind the two dams. NepRWA supports complete or partial dam removal to permit the river to return to its original course and promote fishing.

Channelization work undertaken subsequent to Hurricane Diane 42 years ago has contributed to the degradation of water quality as well. Dozens of storm drains now discharge directly into the river. The current view, reflected in the Massachusetts River Protection Act, is that it is best to drain runoff through naturally vegetated riverbanks which can block the movements of pollutants. Milton has joined with NepRWA in a pilot project to re-vegetate strategic tributary banks with plants that will provide protection from pollution in run-off. Work on this is currently underway.

Milton is working on additional improvements as part of its MS4 (Municipal Separate Storm sewer System) Phase II NPDES storm water general permit process for municipal drainage systems. As of March 2004 the Town had engaged Camp, Dresser & McKee to assist with the permit application and provide a preliminary study of its storm water drainage system, prepared a technical memoranda that will be the basis for the storm water management plan, created a digital version of the Town's drainage map and filed a notice of intent with DEP. Viii The Milton DPW has since produced a draft Stormwater Management Bylaw for the 2005 Annual Town Meeting.

While no wastewater discharges directly into Boston Harbor, the problems of polluted runoff and sewer overflows remain and all communities within the Boston Harbor Watershed, excluding Boston, are required to obtain a Phase II storm water general permit for regulated small municipal separate storm sewer systems.

C2.2 Neponset River Estuary:

Traditionally, estuaries have been much used, but underappreciated, as free sewers for coastal cities. The Neponset River Estuary is no stranger to this phenomenon. In addition to its obvious wildlife and aesthetic values, the estuary is an efficient nutrient trap that is partly physical (differences in salinity retard vertical but not horizontal mixing of water masses) and partly biological. This trait enhances the estuary's capacity to absorb nutrients in wastes, provided organic matter has been reduced by secondary treatment.

The estuary was created about 15,000 years ago, when sea levels began to rise as the last Ice Age glaciers retreated. Valley flooding created a zone of quiet water where sands and silt transported downriver began to settle out and salt-tolerant grasses, mostly Spartina, grew well on shoaled sediments. As sea levels continued to rise, the grasses built up platforms composed primarily of their own peat, and restricted the entering tides to a winding, mud-bottomed channel considerably narrower than the original valley. This unique environment is suitable for only a few plants that have adapted to the harsh conditions presented by this salty peat substrate. Viii

Despite its incorporation into the MDC's Neponset River Reservation in 1899, the estuary continued to be disturbed by dumped dredge soil, the construction of traversing water mains, storm drains and culverts, and an eight-lane expressway. Such ecological disruptions have resulted in nonsupport ratings for shellfishing, fishing and primary and secondary contact as well. However, the Estuary is now designated an Area of Critical Environmental Concern (ACEC) by the Executive Office of Environmental Affairs, receiving a greater level of protection under the Commonwealth's Wetlands Protection Act.

Milton recognizes the importance of protecting the estuary's nutrient absorption qualities, its natural beauty and its unique plant and animal habitat. Construction of the Commonwealth's Neponset River Bike Trail, which runs along the salt marsh, now affords everyone the opportunity to experience this area.

C2.3 Gulliver's Creek:

Gulliver's Creek, a local tributary of the Neponset River, is the estuarine outlet of Unquity Brook. The creek is about ten feet wide where it emerges from the culverts on the downstream side of East Squantum Street. It flows over sand and cobbles between waisthigh shaded banks for about fifty yards until the banks drop gently, becoming broad and marshy.

Gulliver's Creek no longer supports anadromous rainbow smelt spawning. Non-support has been traced to excessive algal growth on substrates, most probably due to nutrient loading in the Neponset River, storm water and non-point source discharges leading to sedimentation, and reduced water flow due to withdrawals.

The Department of Marine Fisheries Shellfish Status Report of October 2000 indicates that Gulliver's Creek also does not support shellfishing, primarily due to high levels of fecal coliform contamination from Unquity Brook. Continued monitoring will help to determine whether ongoing sewer and septic system repair projects in the Milton Academy area are effective in reducing bacterial levels.

C2.4 Pine Tree Brook:

Pine Tree Brook's water quality problems are typical of Milton's waterways. The Brook extends from Hillside Pond and the Blue Hills Reservoir on the north slope of the Blue Hills across town to its confluence with the Neponset River in Milton Village. The brook has two dams, one at the intersection of Harland Street and Unquity Road (the Harland Street Detention Project) and one at the end of Popes Pond (the Pine Tree Brook Reservoir Dam).

The Harland Street Detention Project was constructed subsequent to the town's acquisition of a red maple swamp (the "Town Forest") at the intersection of Harland Street and Unquity Road in the 1960's. This dam controls flood waters within a 280 acre

conservation and flood control easement. The flood control project located sewer overflows and storm water discharges along the brook's banks.

Today Pine Tree Brook's channelized lower reaches suffer from organic impairment, low dissolved oxygen levels, and pathogen contamination and other habitat alterations. Fecal coliform bacteria levels are elevated, rendering the Brook unsuitable at times for both primary and secondary contact. While the brook was not assessed for Aquatic Life Use, it has been placed on alert status due to the possible negative impacts of elevated nutrient concentrations caused by fertilization of adjacent residential properties. It is hoped that the natural vegetation pollution control project undertaken by the Town and NepRWA along Pine Tree Brook will address some of these problems.

The project will construct strategically located stormwater treatment structures to treat runoff from neighboring streets and residences along the (new) Milton High School segment of the brook. These in-ground troughs known as bioretention basins, vegetated with native species, will slow runoff and sift out sediment and accompanying contaminants, thereby improving water quality in an attractive and environmentally friendly manner. Other project improvements designed to curb pollution of the brook include antipollution catch basin stenciling, installation of interpretive signage, garbage cans and mutt mitt stations.

A dramatic illustration of the interdependence of all Milton's smaller waterways and their surroundings was provided in 2002 when clay from capping the Milton landfill for the Granite Links golf course project ran off during very heavy rainfall and could be seen for some days afterwards in Pine Tree Brook, downstream from Popes Pond. Although the clay appears to have dissipated and aquatic life shows no disturbance, and the site's slopes have since been stabilized, the evidence of matter carried downstream clearly demonstrated the importance of protecting slopes around the watershed.xi There are no regulated water withdrawals or wastewater discharges in this segment.

C2.5 Unquity Brook:

Milton's most severe water quality issues relate to Unquity Brook. XII The brook commences at the Milton Police Station at the intersection of Canton Avenue and Highland Street. It then flows behind Milton Academy along Centre Street. Upon reaching Milton Cemetery, the stream is dewatered, subsequently culverted, and then resurfaces near Brook Road. Here stream flow is restricted to a three-foot stone and concrete channel devoid of a riparian buffer zone. A final culvert carries Unquity Brook to the downstream side of East Squantum Street. Portions of this urban interrupted stream drain to the Neponset River Estuary ACEC.

The Milton Academy section of the Unquity Brook has high fecal coliform levels, most likely due to faulty septic systems and sanitary sewers. One source of contamination, since repaired, was traced to a sewer line, which was directly connected to a storm drain emptying into Unquity Brook from Libby Road. Increased nutrient levels result from overfertilization of lawns and runoff experienced during watering and storm events. However, true levels and sources are difficult to evaluate, as high levels of pathogens mask levels of nutrient overloading from other sources.

Excessive mowing at the cemetery ponds also contributes large doses of fecal matter to the brook, primarily from Canada Geese and other waterfowl. This situation can be remedied easily by allowing a vegetated buffer to grow around the pond's perimeter. This buffer would effectively bar feces from washing into the ponds during watering and rain events. The most seriously and visibly contaminated area of Unquity Brook lies within the

culverted section located at the junction of East Squantum and Adams Streets. Members of both the Neponset River Watershed Association and Milton's Department of Public Works have seen both toilet paper and feces floating downstream in this section. Large quantities of trash and debris and sedimentation have been identified throughout the brook, curtailing its use as an aesthetic resource. The illicit connection believed to be responsible for the discharges was identified and repaired during the summer of 2004.

In a somewhat different vein, there seems to be no explanation for the lack of flow between Milton Cemetery and Brook Road. According to the Neponset River Watershed Association, this section often runs dry despite flows both upstream and downstream. The town will need to investigate this area for faulty sewer lines and unrecorded culverts in order to protect the future health of the brook.

C2.6 Hemenway Pond:

Hemenway Pond is small pond situated in a 12.7 acre park located off Blue Hill Avenue (Route 138) between Dollar Lane and Hemlock Drive. The pond is spring fed and empties into Kennedy Brook, located along the Neponset Valley Parkway. Fishing and ice skating are allowed. DCR owns the park and it is managed by the town.

C.2.7 Turner's Pond:

Turner's Pond is a 25.7 acre flood management and conservation area. It is situated between Central Avenue and Brook Road, adjacent to Glover Elementary School in a heavily developed residential area. Pine Tree Brook enters the pond on its south side, and utilizes its flood storage before continuing on its journey to the Neponset River.

A gravel parking area situated along a circular drive and accented by attractive signage and plantings affords easy access to the pond. While swimming is prohibited, area residents enjoy walking paths around the pond, although these are not handicapped accessible. The town is investigating several options for handicapped access, including a multipurpose paved pathway.

The Boston Harbor Watershed 1999 Water Quality Assessment Report notes that Turner's Pond is eutrophic. The pond's location in a heavily populated residential area has lead to nutrient loading from lawn fertilization, resulting also in a seasonal deficiency in dissolved oxygen. Therefore, the pond was rated non-supportive for aquatic life and partially supportive of primary contact. While its vegetated perimeter probably lowers the phosphate and other contaminant levels flowing out of the pond towards the Neponset, the pond may still receive considerable amounts of pollution from Pine Tree Brook.

C2.8 Pope's Pond:

Pope's Pond is part of a 48 acre conservation area located at the intersection of Canton Avenue and Blue Hills Parkway. The elongated five-acre pond, which was created in the 19th century to manufacture ice, begins downstream of the confluence of Pine Tree Brook and Trout Brook. Much of Trout Brook was rerouted to Balster Brook before the 1970's therefore flow from Trout Brook to Pope's Pond is less than historic levels. For the last fifty years, the land surrounding the pond has been managed as parkland. Maintenance of paths and grass-cutting is performed by the Department of Public Works. The land is subject to infestation by several exotic invasive plant species. In 2004, Northeastern University engineering students designed, built and installed a new bridge in order to restore access across the banks of Pine Tree Brook. No water quality data was available for this water body.

C2.9 Houghton's Pond:

Originally called Hoosicwhisick Pond, Houghton's Pond is a major swimming and fishing area. It is located at the intersection of Hillside Street and Blue Hill River Road within DCR's Blue Hills Reservation. The pond, located at the foot of the Blue Hills, is a major attraction for residents from Milton, Canton, Stoughton, Randolph, Boston and other towns. Houghton's Pond functions as an anchor for a well organized system of hiking trails, the Blue Hill Weather Observatory, playgrounds, athletic fields and picnic areas. This combination of amenities within driving distance of so many urban communities brings together a special diversity of cultures and interests, making Houghton's Pond and its environs a particular gem in Milton's crown. At this time we have found no water quality data available for Houghton's Pond.

C2.10 Cemetery Ponds:

The upper cemetery pond is maintained by cemetery groundskeepers and is a source of fecal coliform bacteria in Unquity Brook due to excessive mowing. Many Milton residents exacerbate the situation by feeding ducks and geese that graze along the pond's unbuffered edge.

The lower cemetery pond, Paradise Pond, is more appropriately managed, as it receives less mowing. This pond is a haven for an array of wildlife, and attracts resident naturalists and birdwatchers.

C3.0 Aquifer and Recharge Areas:

While recharge is important for wetland health in Milton, it is not an everyday issue for residents, as Milton obtains all of its water from the Massachusetts Water Resources Authority (the MWRA). Nor does Milton intend to supply its own water in the future. According to the September 27, 1995 map of Milton water resources produced by Applied Geographics, Inc. and the Massachusetts Bays Program, no medium or high-yield aquifers are present within Milton. However, extensive medium-yield aquifers and a smaller high-yield aquifer lie just outside Milton's western border in the Fowl Meadow in Dedham and Canton. In addition, a small DEP-Approved Zone II Wellhead Protection Area surrounds a private spring near the Quincy border. **Please see Map 4: Water Resources.**

C4.0 Flood Hazard Areas:

The Flood Emergency Management Agency (FEMA) issued a Flood Insurance Rate Map (FIRM) for the Town of Milton on April 3, 1978 as Community Panel No. 250245-0001-B. The map contains a thorough delineation of the 100-year flood for the Neponset River and Pine Tree Brook, but only delineates the flood zone for Unquity Brook up to Paradise Pond, the lower pond in Milton Cemetery. A 100-year flood affects all areas abutting this stream. Milton strictly enforces the zoning bylaw which prohibits filling within flood zones.

C5.0 Wetlands:

In addition to the briny marsh and bordering vegetated wetlands of the Neponset Estuary, Milton is dotted with many wetlands of various types. As in all developed areas, many other wetlands were filled prior to their regulation.

While most of the Fowl Meadow and Ponkapoag Bog ACEC is in the adjacent town of Canton, a portion lies within Milton. The Town needs to monitor the impact of any actions taken in this area.

As Thomas Palmer documents in *The Neponset's Urban Forest: A Survey*, the 1960s channelization of the Neponset River eliminated nearly all the wetlands along the river. XIII It is possible that species abundant upstream in Fowl Meadow and similar habitats could be restored along the Neponset if pools of various depths were excavated in the fill platforms along the river. Such restoration of habitat would increase geographic distribution, as well as genetic diversity.

D. Vegetation

Recognition that New England is a cultural landscape shaped in most details by its history of intensive human activity is an essential background for understanding modern ecological processes. Interpretation of the details of this history at geographical and temporal scales relevant to specific concerns can afford tremendous insights into land management and conservation policy."

Linking the Deep and Recent Past to the Modern New England Landscape, David R. Foster, 2000

Milton is the embodiment of the New England cultural landscape. Its lands had been managed by human beings long before European settlers. However, the management methods of native peoples supported diverse biological forms, in stark contrast to the effects of more modern management, including fire suppression, importation of non-native species, intensive agriculture and ultimately, urbanization which have led to homogenization of the region's vegetation. Even in areas allowed to return to a "natural state," current species do not reflect original plant communities.

It is generally recognized that global warming, nutrient and chemical inputs, physical alteration of wetlands and water bodies and other factors also have altered vegetative communities, sometimes stressing component species or enhancing the growth of particular species and inhibiting the ability of particular plants to re-colonize when a site became unavailable.

In general, as a result of all these factors, species diversity has been lost. Still, Milton has some interesting characteristics worthy of preservation. Like most of Massachusetts, Milton lies in a transition zone between coniferous northern New England and the deciduous woodlands of the Mid-Atlantic States, and is home to species of both areas. While Milton is primarily a community of forest edge and its natural landscape is quite fragmented, it has a small variety of larger unbroken habitats and several smaller strategically located natural areas that may allow Milton to contribute to the three levels of biodiversity: genetic diversity, spatial and temporal species diversity, and ecosystem diversity.

Through proper management of corridors, wetlands, and woodlands, as well as sensitive development and redevelopment, the town may still function as a source for species recolonization and migration. Such management is essential to the preservation of Milton's significant scenic and cultural identity and value for its residents, the Boston metropolitan area and indeed, the Commonwealth.

D1.0 General Inventory:

Thanks to differences in elevation and proximity to both fresh and salt water sources, Milton is home to a surprising array of plant communities. Between the hilltop communities of the Blue Hills Reservation and the Neponset Estuary lie fields, meadows, Oak-Hickory woodlands, much post-agricultural forest, Red Maple Swamps, Shrub Wetlands, Riverside Communities, and Floodplain Forests. Interspersed with much of this abundance are residential landscapes featuring lawns, ballfields and golf courses, which provide lower diversity and habitat value.

In addition to the Fowl Meadow/Ponkapoag and the Neponset Estuary ACECs the wooded areas of the Blue Hills and the banks of the Neponset River probably contain most of the important plant communities in the town. In several instances, these areas even hold small pockets of undisturbed vegetative communities, as their topographies are not receptive to cultivation. In other cases, such as that of the oak remnants along the Neponset River, luck may have played a role in their relatively undisturbed survival.

It is important to note that there no comprehensive inventory of Milton's flora has been prepared since that compiled by Judge Joseph R. Churchill and included in Teele's 1888 *History of Milton.* A floral inventory, complete with overlay of intrusions, such as roadways and crossings, would be an ideal tool in the management of natural spaces in Milton. Many different volunteer organizations could be tapped for such work: Milton High School Community Service Program and academic programs, New England Wild Flower Society Plant Conservation Volunteers, and certificate students from local botany and conservation programs, such as the New England Wild Flower Society and the Arnold Arboretum. The Executive Office of Environmental Affairs conducts Biodiversity Days in the Blue Hills. Its *Biodiversity Handbook* would be a useful tool upon which to base such an ongoing inventory and monitoring program.

D2.0 Forested Land:

Most of Milton's woodlands occur on fields and pastures which were abandoned after the arrival of industrialization along the Neponset River. Old growth forest is rare, although some may be found in the recently protected "Forbes Woods" area overlooking the Neponset River. The majority of Milton's woodlands are forest corridors separating residential lots of two acres or more, including several large privately owned properties. Like much of eastern Massachusetts, Milton's substrate is primarily acidic. Acidic conditions usually support oak or pine forest, the mix of species depending on the degree of dryness and disturbance history.

Old pasture sites commonly contain a larger proportion of white pine, as this species is not shade-tolerant. Hayfields, or meadows, most often sprout first into shrub lands and deciduous trees as these species sprout well after being cut.xiv

While *Pinus strobus* (Eastern White Pine) is still featured prominently in the town's less intensively developed areas, continued residential development is quickly removing the largest post-agricultural specimens from the landscape. However, the tree remains frequent on woods edges, where sunlight and space are readily available. Another native

conifer, *Juniperus virginiana* (Red Cedar) is becoming scarcer as its old field habitat gives way to woods, though it persists on sunny ledges in the Blue Hills. The ubiquitous *Acer rubrum* (red maple) is frequent in upland understories and usually dominates forested wetlands, where soft soils make it susceptible to blowdowns. Drier uplands support a mix of red, black and chestnut oaks, often varied with beech and pignut hickory. On moist northern slopes the oaks are joined by sweet birch, white oak, shagbark hickory and hemlock, with an occasional paper birch, white ash or sugar maple.

Although large swathes of Milton's forest appear intact, most are fragmented by driveways, roads, houses, and sewer and power easements and no maintain many native species of wildlife that need larger ranges of unbroken woods. Such species require forest interiors of 250 acres or more. Consequently, Milton is largely a community of edges with little temporal variation among forests and no large stands of old growth forest.

Due to repeated disturbance, many areas feature bushy thickets of greenbrier, fox grape, multiflora rose, oriental bittersweet and Japanese knotweed. All but greenbrier are exotic invasives. Native shrubs such as arrowwood, maple-leaved viburnum, witch hazel, highbush blueberry and silky dogwood are frequent in intact woodland soils. Many of the herbaceous plants are perennial: canada mayflower, wintergreen, pink ladyslipper, wild geranium, poison ivy, starflower, whorled loosestrife and wood anemone. Bracken fern, hayscented fern, New York fern and lady fern are quite common. Mayflower is an abundant common ground cover, as are clubmosses.

As a largely built-out community, Milton has to plan for the best management practices for the trees and shrubs in its existing second-growth forest lands. Along with the Commonwealth, which controls much of the forested land within our perimeters, the Trust for Public Land and private landowners we must review all the management options. These include restoration, ensuring species diversity, providing for age variation, preserving critical habitat features and protecting intact pre-colonial remnants. With further discussion and study, we should determine our priorities and adopt a management plan for the Town, in cooperation with the other entities controlling our forest land.

D3.0 Agricultural Land:

Milton contains very little agricultural land; approximately 13 acres are enrolled in the State's Chapter 61A program. All of this land functions as nurseries. These nurseries reside within an approximately three mile area near Chickataubut Hill in the Blue Hill Reservation. In addition, both of Milton's golf courses are in the same area. Wollaston Golf course is private, and therefore benefits only its members. However, the club manages exotic invasive plant species, and maintains vegetated buffers around its ponds, both of which contribute to the public good. Granite Links Golf Club is semi-private, but is expected to designate public walking paths, thereby opening its elevated vistas to most able bodied residents.

D4.0 Wetland Vegetation:

Wetlands support a high diversity of plants far in excess of what would be predicted when considering the relative land area they occupy. Although wetlands comprise five percent of the land area of the continental United States, over 30 percent of the nation's vascular flora occurs in wetlands.* Milton's wetland vegetation sites cover a broad range: red maple swamp, shrub swamp, classic cattail and graminoid associations, vernal pools, and of course, marshes. Wetlands in Milton range from isolated pockets to larger interconnected systems formed in low-lying areas, and even perched wetlands.

D4.1 Maple Swamp:

While red maple swamps are the primary wetland type in Milton, community structure and vegetative composition vary, as in most natural environments. It's common, for instance, to find maple swamps and shrub swamps integrating. Both typically feature a pit-and-hummock microtopography, created as growth becomes concentrated on tussocks and root mounds.

In mature red maple swamps (i.e. those at least 40-50 years of age), the tree canopy typically forms a layer about 8 to 15 meters (26.25 to 49.21 feet) above the forest floor and may include a variety of deciduous trees.^{xvi}

In less mature swamps the shrub layer is denser and contains primarily *Salix spp*. (willows), *Cornus amomum* (silky dogwood), *Viburnum recognitum* (arrowwood) and *Smilax rotundifolia* (greenbrier), and to a lesser extent *Cephalanthus occidentalis* (buttonbush), *Vaccinium corymbosum* (highbush blueberry), *Luecothoe racemosa* (swamp sweetbells) and *Hamamelis virginiana* (witch hazel).

In many of Milton's red maple swamps, the herbaceous and ground cover layers are dense and robust, particularly in spring before leaf-out. Common herbs include cinnamon, sensitive and interrupted ferns, *Symplocarpus foetidus* (skunk cabbage) and *Arisaema spp.* (jack-in-the-pulpit). Sunny breaks support graminoids such as *Carex stricta* (tussock sedge) and *Calamagrostis canadensis* (bluejoint), while darker areas are thinly covered by mosses and liverworts.

In Milton, as succession continues, red maple growth in swamps should give way to more shade tolerant species. As some of the likely successors, such as hemlock and ash, have recently suffered to woolly adelgid and ash blight, it is hard to know which species will succeed. While the ready availability of water can help slow the morbidity caused by these parasites, hemlock and ash may well fade from the New England landscape like their predecessor the American elm. Hopefully, exotic invasive species, such as *Lythrum salicaria* (purple loosestrife), buckthorn, oriental bittersweet and *Phragmites communis*, already present in and around many red maple swamps may be the beneficiaries of such succession.

In order to prevent the spread of invasive, non-native species, the Town should consider whether to restore Town-owned land. Milton's Town Forest on Harland Street is infested with both *Lythrum* and *Phragmites*. However, these plants are concentrated in the dam area and have only recently begun to move up the banks of Pine Tree Brook, so the area may well be salvaged. Other species, such as *Cephelanthalus occidentalis* (buttonbush), *Alnus* (alder) and *Lindera* benzoin (spicebush) found more commonly in shrub swamps are also present on the site, possibly making them available if space affords them an opportunity. Management of this growth is more significant because a water source, Pine Tree Brook, which flows through this area, could be overcome by the invasives.

D5.0 Rare, Threatened and Endangered Vascular Plant Species of Milton

The Natural Heritage and Endangered Species Program has documented 13 observations of state listed species within Milton. Currently, through the New England Wild Flower Society's (NEWFS) New England Plant Conservation Program (NEPCop), trained volunteers monitor rare plant populations within Milton for Massachusetts' Natural Heritage Program. To protect the existing plants the published lists of observed species do not necessarily reflect current observations and only NHESP knows which species

have been monitored, if at all.xvii Plant species also migrate as site conditions change and access or transportation to new sites becomes available.

Milton has a type of habitat ranked high for endangered species habitat, the brackish tidal marsh.xviii

D6.0 Unique Natural Resources:

While some of the plant communities listed below are actually quite typical of southeastern Massachusetts, their presence within an urban landscape and within six miles of downtown Boston renders them unique.

D6.1 Blue Hills Reservation:

The Blue Hills were so named by early European explorers who, while sailing along the coastline, noticed the bluish hue on the slopes when viewed from a distance. More than ten thousand years before those Europeans arrived, Native Americans made their home in the hills. The Natives referred to themselves as Massachusett, or "people of the great hills."

Located only minutes from downtown Boston, the Division of Conservation and Recreation Blue Hills Reservation stretches over 7,000 acres from Quincy to Dedham, Milton to Randolph, providing a green oasis in an urban environment. From the 635 foot summit of Great Blue Hill in Milton, visitors can see over the entire metropolitan area. Blue Hills Reservation's scenic views, 125 miles of trails over varied terrain, water features, playgrounds, playing fields, ski slope and the Trailside Museum offer an assortment of outdoor activities for all tastes.

D6.1a Blue Hills Vegetation:

No specific inventory has been compiled for this plan. Resources at DCR should be tapped for any botanical inventories prepared at Trailside Museum or the Chickatawbut Education Center. Given the number of endangered species associated with the Blue Hills, mapping and inventories would be helpful in determining the relative importance of the Blue Hills sites with regard to these species.

Botanical community types have been developed by Natural Heritage and Endangered Species Program in its 2001 draft Classification of the Natural Communities of Massachusetts and have been documented as occurring within the reservation in Milton.xix

D6.2 Neponset River Reservation:

The Neponset River Reservation is a valuable social and ecological resource, not only to the residents of Milton, but also to the residents of Boston and Quincy, and the region as a whole. Over the last decade, the Neponset River Estuary portion of the reservation has undergone a recreational renaissance, with the creation of the state's Neponset Greenway Trail, the renovation of the Pope John Paul II Park, and now the groundbreaking for the "Neponset II" Park at Granite Avenue. The trail system and its parks are designed to offer bike paths, walking trails, picnic shelters, lookouts, tot lots, athletic fields, bird watching, wildlife discovery, botanizing, and public education. The Neponset in Milton and Quincy is a "fascinating jumble of active and dilapidated commercial sites intertwined with a delightful but seldom seen collection of salt marshes, forest trails, fishing spots, coastal thickets, beaches and breathtaking vistas." NepRWA and the Friends of the Estuary are

completing a multi-use trail to open up the shore in Milton and Quincy and tie together the wonderful parks on both sides of the River. The proposed route begins at the state's Squantum Point Park, reaches the State Street South Complex (visible from Hutchinson Field), where it leaps over Sagamore Creek to reach the estuary's salt marsh in Milton, and finally links with Granite Avenue to join the existing Neponset Greenway.

D6.3 The Estuary Marsh:

The Milton side of the marsh is located between the old Forbes Wharf near Hutchinson field and Gulliver's Creek, and backs up to Forbes Woods on its northeast corner. The mingling of fresh and salt waters through tidal influences renders the marsh a unique local habitat and landscape. The 21 taxa documented by Palmer^{xxi} illustrate the severe conditions present, as they occur almost exclusively in salt marsh habitats. However, due to the mixture of river and salt waters common to estuarine habitats, the estuary marsh supports a slightly wider range of species than do salt marshes of comparable size. Like most salt marshes, the estuary marsh in comprised of three vertical zones relative to the extent of intertidal flooding.^{xxii}

As Palmer notes, this eastern portion of the estuary marsh in Milton "remains the best place to observe what the Neponset Estuary high marsh looked like a century ago, when phragmites was absent from the locale."

D6.4 Forbes Woods:

Forbes Woods, 24 acres of exceptional forestland, meadow and historic garden on the shores of the Neponset estuary, is a new addition to the Neponset River Reservation in Milton. In the summer of 2002 the land was acquired by the Commonwealth, to be managed by the Department of Conservation and Recreation. The recently completed management plan for this site calls for passive recreation and preservation and study of the environmental and historical resources at the site.

Forbes Woods represents the largest continuous upland habitat of any kind in the lower Neponset; 95% of its 24 acres remains wooded today. Seen from the marsh, the trees form an unbroken front rising smoothly to the crest of the hill. The forest is remarkable primarily because of the historical context which it brings to this Milton landscape. One can read between the lines of younger indigenous volunteer species, and see the bones of the once-spectacular 19th century parkland, pasture and forest that existed above the estuary marsh. The original estate forest contains specimens of great size and diversity, including mature beech, black oak, white oak, elm, sugar maple, ash, shagbark hickory, tulip poplar, black walnut and other species uncommon in woodland settings in eastern Massachusetts.

The site's sheltered slopes and moist soils have encouraged the growth of a forest that contains 51 species of tree of various ages, by far the richest in Milton, both biologically and temporally. Many are giants, and although trees of this size are not uncommon in parks, roadsides and lawns south of Boston, it is rare to find them all together in a seminatural setting. Few other DCR parcels feature a comparable stand.^{xxiii}

D6.5 Neponset River Oak Forest Remnants:

Most of the narrow parkland corridor along the Neponset between the Fowl Meadow and the estuary was filled and graded fifty years ago for flood-control purposes. The river was dredged and channelized, and the spoil was deposited on the adjacent banks. The

resulting fill-platforms have since been occupied by dense woods dominated by nonnative species such as black locust, Norway maple and multiflora rose.

In a few areas, however, particularly where ledges of Roxbury puddingstone break out between the Blue Hill Avenue bridge and Baker Dam, a more natural vegetation survives. Although oaks predominate, locally uncommon trees such as shagbark hickory, white pine, tupelo, sassafras, beech, witch hazel, hackberry, dogwood and pin cherry also persist. Similarly, shadbush, maple-leaved viburnum, highbush blueberry, hillside blueberry, lowbush blueberry, Canada mayflower, Pennsylvania sedge and sweet pepperbush can be found throughout the shrub layer.

According to Palmer's Urban Forest Survey.

Given the highly-developed nature of the river's surroundings, the suite of species associated with the oak remnants is something of a surprise, botanically speaking, and permits one to imagine what the forest here might have looked like centuries ago. Insofar as the parklands along the river are intended to preserve natural scenery, the oak remnants have a special value, despite their modest extent.24

D6.6 Vernal Pools:

According to the Natural Heritage and Endangered Species Program, Milton has nine certified vernal pools. Most of these, however, are in private hands and reside in residential developments. Therefore, they are not open to the public. Milton's vernal pools are located in wooded areas, most often in red maple swamps. While animal species, not plant species, are considered in the identification of vernal pools, vegetation is nevertheless a key component of the nutrient cycle here. The short period of intensive growth cycles the nutrients and energy of fallen leaves on the pool bottom into frogs and salamanders of the adjacent woodlands. As Kenney and Burne write for the Massachusetts NHESP, "a pool represents the cumulative evolution of a number of species adapted to and exploiting a productive, although temporary, habitat." xxiv However, the longevity of trees and other vegetation is a key component of vernal pool habitats.

D7.0 Exotic Invasive Species:

For thousands of years humans have been transporting both flora and fauna across their natural boundaries in order to enrich a particular place, or simply by accident. Whatever the method, exotic invasive species have arrived in Milton and will probably continue to do so for the foreseeable future. The following is a list of the worst offenders.

Scientific Name	Common Name	Control
Acer platanoides	Norway Maple	Difficult
Akebia quinata	Chocolate Vine	Difficult
Alliaria petiolata	Garlic Mustard	Simple
Anthriscus sylvestris	Wild Chervil	Simple
Berberis thunbergii	Japanese Barberry	Mid-range
Celastrus orbiculatus	Oriental Bittersweet	Extremely Difficult
Euonymus alatus	Winged Euonymus	Mid-range
Lythrum salicaria	Purple Loosestrife	Extremely Difficult
Phragmites australis	Common Reed	Difficult
Polygonum cuspidatum	Japanese Knotweed	Difficult
Rosa multiflora	Multiflora Rose	Mid-range

In addition to the danger these plant species pose to our native flora, several exotic invertebrate species also pose a threat. In particular, the hemlock woolly adelgid (*Adelges tsugae*), an Asian aphid, has arrived in Milton, killing trees throughout natural and cultivated landscapes alike. This infestation is so serious because the hemlock (*Tsuga canadensis*) is a key component of Massachusetts forests, second only to the red maple in abundance and providing food and shelter to many species of mammals and birds. Several Milton landscapes of note, such as Forbes Woods, could be irrevocably altered. However, Pam Thomas of the New England Wild Flower Society explains that hemlock faced a similar predation about 5,000 years ago, before recovering about 3,000 years ago. **XY*Such an event suggests that such outbreaks of selective insect herbivores have only a temporary effect, albeit one that is measured in millennia rather than decades or centuries.

The regional decline of white ash (*Fraxinus americanus*) is also affecting Milton's natural and ornamental landscapes. Decline of white ash, however, is a result of many factors, primarily environmental stress.

A relatively recent arrival in the Milton landscape, *Operophtera brumata* or winter moth, was introduced into North America from Europe^{xxvi}Larvae hatch in the spring and initially feed by mining developing buds. This results in holes in the leaves, which become conspicuous as the leaves expand. Later, they feed either openly, or within rolled or webbed leaves. During severe outbreaks, trees and understory vegetation can become covered with webbing. Because feeding is completed early in the growing season, infested trees will produce new leaves if adequate water is available. So while trees do not die, they're growth and defenses can become greatly impaired.

While Milton lacks the funds for a large-scale eradication program in order to combat all the exotic invasive species within its borders, the town may be able to educate citizens about exotic invasives and the importance of making their personal landscapes more ecologically sound in general. In addition, the town could rank parcels on their level of infestation, relative importance within Milton's mosaic of natural communities, and prospects for successful treatment. Such an evaluation would help the town prepare applications for grant money, as well as proposals for volunteer organizations such as the New England Wild Flower Society (NEWFS). NEWFS Plant Conservation Volunteers routinely conduct eradication and maintenance programs. Thoughtful planning for future development can aide in the defense against invasives, as native species of a community interact and form a functional unit that resists disturbance and cycles nutrients more effectively, the longer the species evolve together.

E. Fish and Wildlife

E1. Inventory

The bird, mammal, reptile, amphibian and fish life in Milton is typical for the northeast region of the United States, although there are also uncommon species with in the area, especially in the Blue Hills. Typically, the bird species in the area include the American robin, blue jay, northern cardinal, woodpeckers, blacked-cap chickadee, tufted titmouse, and assorted crows, finches and sparrows. The predominant wetland birds are the mallard duck, canada goose and the redwinged blackbird. Uncommon bird observations within the town include great blue heron, least bittern, ring-necked pheasant and turkey vulture.

Mammals commonly observed in the Town include squirrels, chipmunks, mice, rabbits, opossum, raccoons and skunks. Some uncommon mammals observed include deer, fox and coyotes.

The dominant reptiles-amphibians observed in the Town are the bullfrog, red-backed salamander and spring peeper. Probably the most significant wildlife species reported in the Town are the rattlesnake and the copperhead. They have been observed within the Blue Hills Reservation and despite the human traffic and the destruction of their habitat, have been able to survive in isolated areas. Also, the MNHP has listed Blanding's turtle as a threatened species and the spotted turtle a species of special concern. These two reptiles can be found in the Fowl Meadow area.

The Neponset River and its tributaries once supported a great diversity of fish, the most important being the shad and alewives that formerly ran upstream in great numbers in April and May, before dams blocked their passage. The Neponset Estuary is home to one of the commonwealth's strongest rainbow smelt runs and striped bass have been taken from Milton Landing in recent years. Large carp up to 18 inches long inhabit the ponded portions of the river above the dams, and can be seen shimmying alongside each other in shallows above the Central Avenue bridge in early summer. Electroshock fish sampling of Pine Tree Brook at School Street performed by the Massachusetts Department of Environmental Protection (MA DEP) in 1994 revealed robust populations of eels and white suckers, but also produced redfin pickerel, brown bullheads and a single brown trout that did not appear to be a hatchery fish.xxvii Native brook trout reportedly persist in reaches above the Harland Street Dam.

The Blue Hills Reservation, the Neponset River Reservation, Hutchinson Field, Forbes Woods and the Town Farm are all areas in Milton that provide protection for a variety of rare species habitats.

E1.a Vernal Pools

The vertebrate species which spawn in the nine identified vernal pools in Milton can only live in forested uplands immediately adjacent to these pools. In order to make the journey, these species require continuous cover and access points. Sustainable pools require a minimum vegetated buffer of 100 feet according to Massachusetts Association of Conservation Commissioners.

E1.b Corridors for Wildlife Migration

E1.b (1) Neponset River

Principal among disturbed wildlife corridors in Milton are the two dams on the Neponset River, which prevent productive shad and herring runs.

The quality of riparian habitat in the Neponset River corridor suffered greatly from channelization work undertaken following Hurricane Diane, about 42 years ago. Proposals to develop the corridor for parkland will afford the town an opportunity to address this issue by requiring that stormwater be re-routed through constructed wetlands and buffers or detention basis.

Species abundant upstream in the Fowl Meadow—green frogs, bullfrogs, American toads and water snakes—are rare or absent in the corridor, and may have been extirpated by

the channel work. These species could likely be restored to the area if pools of various depths were excavated in the fill-platforms, so that the former variety of habitats was approximated. Any proposal to redevelop the corridor for parkland should include provisions to re-route storm water to create conditions sustaining these species, as part of improved drainage systems. Although no state-listed rare plants apparently occur in the corridor, those associated with the unfilled banks and ledges—tupelo, flowering dogwood, sassafras, hillside blueberry, pepperbush, hackberry and so forth—are locally scarce, and should receive priority for preservation. The flora of the fill-platforms, in contrast, is dominated by weedy and invasive species unlikely to be eliminated even by determined efforts. Any areas dominated by, for instance, multiflora rose or Norway maple would be good candidates for either ornamental plantings (apple, shadbush, viburnums) or restoration with local species (oak, white pine, sycamore).

E1.b (2) Neponset River Estuary

The Neponset River Estuary begins at the Baker Dam in Lower Mills between Milton and Dorchester, just upstream of the Adams Street Bridge, where the dam's base is lapped by flat water during the year's highest tides. Three major groups of autotrophs may be found in the estuary and play varying roles in maintaining a high gross production rate: phytoplankton; benthic microflora (algae living in and on mud, sand, rocks and bodies or shells of animals); and macroflora (large attached plants, including seaweeds, submerged eelgrasses, and emergent marsh grasses).

Estuaries provide the nursery grounds for most coastal shellfish and fish that are found not only in the estuary, but also offshore. Organisms have evolved many adaptations to cope with tidal cycles, thereby enabling them to exploit the many ecological niches characteristic of an estuary. Some animals, such as fiddler crabs, have internal biological clocks that help to time their feeding activities to the most favorable part of the tidal cycle.

E2. Milton Rare and Endangered Species

Taxonomic Group	Scientific Name	Common Name	State Rank	Federal Rank	Most Recent Obs
Amphibian	Hemidactylium scutatum	Four-Toed Salamander	SC		1993
Reptile	Clemmys insculpta	Wood Turtle	SC		1987
Reptile	Terrapene carolina	Eastern Box Turtle	SC		1992
Bird	Ixobrychus exilis	Least Bittern	E		1990
Bird	Vermivora chrysoptera	Golden-Winged Warbler	E		1952
Mussel	Ligumia nasuta	Eastern Pond mussel	SC		1941
Crustacean	Crangonyx aberrans	Mystic Valley Amphipod	SC		1983
Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		1996
Dragonfly/Damselfly	Neurocordulia obsoleta	Umber Shadowdragon	SC		1917
Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1961
Beetle	Cicindela rufiventris hentzii	Hentz's Redbelly Tiger Beetle	Т		1991
Beetle	Desmocerus palliatus	Elderberry Long- Horned Beetle	sc		1991

Carex glaucodea Elymus villosus Eupatorium aromaticum Houstonia longifolia var longifolia	Glaucescent Sedge Hairy Wild Rye Lesser Snakeroot Long-Leaved Bluet	E	1901 1889 1895
Eupatorium aromaticum Houstonia longifolia var Iongifolia	Lesser Snakeroot	E	1895
Houstonia longifolia var longifolia			
longifolia	Long-Leaved Bluet	E	1910
			1.010
Ophioglossum pusillum	Adder's-Tongue Fern	Т	1887
Platanthera flava var herbiola	Pale Green Orchis	Т	1995
Prenanthes serpentaria	Lion's Foot	E	1853
Ranunculus micranthus	Tiny-Flowered Buttercup	Е	1901
Scirpus Iongii	Long's Bulrush	Т	1999
Senna hebecarpa	Wild Senna	E	1885
Sphenopholis nitida	Shining Wedgegrass	Т	1900
Viola brittoniana	Britton's Violet	Т	1990
	herbiola Prenanthes serpentaria Ranunculus micranthus Scirpus longii Senna hebecarpa Sphenopholis nitida Viola brittoniana	Pale Green Orchis Prenanthes serpentaria Prenanthes serpentaria Lion's Foot Tiny-Flowered Buttercup Scirpus longii Long's Bulrush Senna hebecarpa Wild Senna Sphenopholis nitida Wedgegrass Viola brittoniana Pale Green Orchis	Pale Green Orchis T Prenanthes serpentaria Lion's Foot E Ranunculus micranthus Tiny-Flowered Buttercup E Scirpus longii Long's Bulrush T Senna hebecarpa Wild Senna E Sphenopholis nitida Sensa T

F. Scenic Resources and Unique Environments

As an urban community in close proximity to a major metropolitan area, Milton is privileged to be home to such a wide range of habitats, a large percentage of which are protected by the Commonwealth. The Blue Hills, Neponset River Reservation, Neponset Estuary, Forbes Woods and Hutchinson Field are all prized for their viewsheds and historical, recreational and ecological values. Milton has many other valued resources, scenic and otherwise. Chief among these is Milton Landing. Recently, condominiums were constructed on the banks of the Neponset River on the site of the Hood frozen food warehouse. New walkways, benches and native plantings provide public access opportunities and views of the Neponset Estuary; while preserving the private Milton Yacht Club in the historic brick former Milton Police Station.

Milton Landing is downstream and close to Baker Dam. Protection and enhancement of the Neponset River for public use, including dam removal, was discussed at the November 13, 2003 Milton Natural Resources Forum. Some residents are concerned about how the river would look subsequent to dam removal. Others are interested in removing the dam to restore fish runs.

In addition, residents present at the Milton Natural Resources Forum called for the protection of remaining estates in Milton, as these resources are being converted into subdivisions and condominium developments. Large unbroken tracts containing gardens, meadows, parkland and forest are difficult to find in such close proximity to Boston, and are felt to be a particularly valuable part of Milton's history.

Since 1995, approximately 125 acres of wooded upland have been altered or lost to residential development, and approximately 50 acres of wetlands have been filled or polluted. This net loss has been offset by the protection of approximately 105 acres of woodlands and wetlands. DCR purchased the 24 acre Forbes Woods, an adjacent 8 acres has been placed under a permanent conservation restriction by the private owner, 25 acres on Hillside Street have been purchased for open space by the Copeland Family Foundation, additional acreage has been acquired adjacent to the Blue Hills by the DCR and approximately 80 acres was placed under a conservation restriction by the

Commonwealth at Camp Sayer. (A more complete documentation of properties, acreage, habitats and alterations is available in Section 5 of this report.)

Some open space such as Cunningham Park, is not permanently protected. Should the Cunningham Foundation face financial difficulties or trustees feel that an alternative use for the site is preferred; residents could lose the town's only community pool and tennis courts, a playground and parkland. Likewise, further reductions in the DCR's budget may affect the administration and management of state owned and run parks and museums. Indeed, Milton has already agreed to lease and manage athletic fields at Houghton's Pond.

As mentioned previously, Milton is graced with several significant viewsheds visible from residential roads throughout town. These viewsheds include historic landscapes, antique homes and naturally occurring environments such as the differing views of the Blue Hills (particularly along Blue Hill Avenue), the Neponset River and its tributaries, the marsh and Forbes Wharf. The Continued subdivision of land is perhaps the most serious threat to these resources, and planning should take into account their protection.

G. Environmental Challenges

Milton has its share of environmentally sensitive issues in Town. The Milton Landfill, closed in January of 1997 was one. Under a fifty year lease from the Town of Milton, Quarry Hills Associates has capped the landfill and developed it as one third (9 holes) of the Granite Links Golf Club.

Some of the additional environmental challenges for the Town of Milton are to protect public and private water supplies, design flood control measures, protect against storm water damage, prevent pollution and protect fisheries, shellfish and wildlife habitat.

In the future Milton will need to protect the Neponset River watershed, its wetlands and wildlife habitats as it plans for the eventual use of its few remaining undeveloped areas. While the Town has a very substantial proportion of its area devoted to open space and recreation, development of remaining acreage must be sensitive to these three areas of critical concern. As heavily built-out as Milton is, these resources cannot be replaced once they are lost.

Milton faces a particular financial challenge in supporting recreational needs and preserving open space, due to the town's small commercial tax base. Our small and concentrated business district contributes greatly to Milton's unique charm. Many residents are attracted by the lack of fast food restaurants and strip malls, and are largely committed to prohibiting such developments. Increasing business revenues will require not only creativity and dedication, but also, possibly zoning and bylaw changes. Furthermore, suitable commercial sites are scarce in Milton given both the location of conservation lands and Milton's proximity to other communities with established business districts. Therefore, alternative financial resources will likely continue to be required to meet the town's needs.

As more subdivisions and roads are built each year, it is important to monitor development to ensure that growth is channeled to appropriate locations and that critical open spaces are preserved.

i "EOEA Massachusetts Watershed Initiative 2000"

"NepRWA, "A Vision for a Restored Neponset River"

iii NepRWA Membership Pamphlet

iv NepRWA Membership Pamphlet

^v NepRWA "A Vision for a Restored Neponset"

vi http://www.mass.gov/dep/brp/stormwtr/stormfaq.htm

vii Milton's NPDES Phase II Small MS4 General Permit Annual Report, March 2004

viii Palmer, 1997

ix CHASE PAPER

*Boston Harbor Watershed 1999 Walter Quality Report

xi From 1997 to 2002, Central Artery Tunnel project soil was trucked to the former West Quincy landfills and Milton's 56-acre landfill. The solid waste was covered with 20 to 30 feet of historic fill, which was graded, shaped and then topped with an 18 inch Boston Blue Clay cap from Boston's Big Dig

xii In the Boston Harbor Watersheld1999 Water Quality Report (Published October 2002), the Commonwealth notes that "the Aquatic Life Use for Unquity Brook is assessed as partial support based on loss of habitat due to channelization, temperatures and pH measurement outside the Surface Water Quality Standards (SWQS) for a Class B water body, and elevated nutrient levels". Neither does the brook support Primary nor Secondary Contact Recreational uses (i.e. swimming and boating), due to elevated pathogen counts (fecal coliform bacteria) collected during dry weather conditions. Additionally, the same report notes that the Neponset River Watershed Association's water quality sampling (1998, 1999 and 2001) indicates in stream turbidity during wet weather conditions.

xiii Kevin Scofield, a Walpole resident who grew up in Mattapan, told [Palmer] that prior to the project a large stretch of forested pools and backwaters existed beside the river in the Ryan Playground area, and that it was full of aquatic life.", Thomas Palmer, A Survey of the Neponset's Urban Forest, 1998, p.21

xiv Jorgensen, A Sierra Club Naturalist's Guide for Southern New England, 1978, p. 214-219

xv National Wetlands Inventory http://wetlands.fws.gov/plants.htm

xvi Including, but are not limited to, Acer rubrum, Fraxinus Americana, Fraxinus pennsylvanica, Nyssa sylvatica (Tupelo), Betula alleghaniensis, Quercus bicolor (Swamp White Oak), and Ulmus Americana. Common needle-leaved trees include Pinus strobes, Thuja Occidentalis, Chamaecyparis thyoides, Larix laricina, Tsuga canadensis, Picea mariana and Picea rubens. The subcanopy, usually the least developed layer, fills in at 3 to 6 meters (9.84 to 19.69 feet).

xvii Please see the table below:

Scientific Name	Common Name	State	Last
		Rank	Observed
Asclepias purpurascens	Purple Milkweed	E	1921
Carex glaucodea	Glaucescent Sedge	E	1901
Elymus villosus	Hairy Wild Rye	E	1889
Eupatorium aromaticum	Snakeroot	E	1910
Houstonia longifolia var. longifolia	Long-Leaved Bluet		
Ophioglossum pusillum	Adder's Tongue Fern	T	1887
Platanthera flava var. herbiola	Pale Green Orchis	T	1995
Prenanthes serpentaria	Lion's Foot	E	1853
Ranunculus micranthus	Tiny-Flowered Buttercup	E	1901
Scirpus longii	Long's Bulrush	T	1999
Senna hebecarpa	Wild Senna	E	1885
Sphenopholis nitida	Shining Wedgegrass	Т	1900
Viola brittoniana	Britton's Violet	Т	1990
Source: Massachusetts Natural Heritage Program: Rare Species by Town;			

Source: Massachusetts Natural Heritage Program: Rare Species by Town; www.mass.gov/dfwele/dfw/nhesp/townm.htm

Acidic Rocky Summit/Rock Outcrop: Rock outcrops dot the summits of the Blue Hills. These open communities feature low shrubs, scattered grasses, mosses, lichens and occasional trees, found on rocky summits with exposed acidic bedrock or on rock outcrops where bedrock is acidic.

These areas are characteristically dry, with little or no soil and can often be found as open patches within the ridge-top pitch pine or dry, mixed oak communities. Vegetation is concentrated around the edges and is found in pockets of soil within the outcrop. While canopy cover is largely absent, trees found near the margin of the bedrock areas include pitch pine (Pinus rigida), white pine (Pinus strobus), and red oak (Quercus rubra). The dominant shrubs include scrub oak (Quercus ilicifolia), huckleberry (Gaylussacia baccata), early sweet blueberry (Vaccinium pallidum), low sweet blueberry (V. angustifolium), black chokecherry (Aronia melanocarpa), and dwarf serviceberry (Amelanchier stolonifera). Herbaceous species include little bluestem (Schizachyrium scoparium), poverty grass (Danthonia spicata), common hair grass (Deschampsia flexuosa), Pennsylvania sedge (Carex pensylvanica), pale corydalis (Corydalis sempervirens), and cow wheat (Melampyrum lineare).

The major threat to this habitat type is probably the use of the areas as viewpoints. This can destroy the vegetation by trampling. In the Blue Hills, trails have been built to avoid sensitive areas. Public education can help users protect fragile areas as well. While larger and steeper areas where the community occurs are probably stable and not likely to be overgrown by trees, smaller areas may be overgrown during succession. Controlled burns may be useful in keeping areas open. Keeping this habitat open should be considered a priority as it is host to state listed rare species Erora laeta, early hairstreak butterfly.

Ridgetop Pitch Pine/Scrub Oak: the Blue Hills is also home to Ridgetop Pitch Pine-Scrub Oak Woodland, occurring in a mosaic with the rock outcrop community noted above. This community, tolerant of extremely xeric growing conditions, is found on ridge tops and exposed outcrops of acidic bedrock, normally at elevations ranging from 255 to 792 meters. However, Great Blue Hill, the highest of the 22 hills in the range, stands at only 193.55 meters.

xviii As of 1994, brackish tidal marsh habitat has been ranked G3S1xviii under the Natural Heritage and Endangered Species Program's Priority Natural Community Types for Protection in Massachusetts.

xiv Blue Hills Vegetation: sources: Natural Heritage and Endangered Species Program, http://www.mass.gov/dfwele/dfw/nhesp/nhclass.htm; http://www.mass.gov/dfwele/dfw/nhesp/drterr.pdf, pages 5-6, 53-54, 80 and 85 and http://www.mass.gov/mdc/BLUE.HTM

Soil accumulation is slow and soil depths are generally shallow, often with considerable exposed bedrock. Generally, communities are fire dependent. Where fire has been infrequent, succession to white pine-oak forest is evident. The woodland canopy contains somewhat dwarfed pitch pines (Pinus rigida) (avg. 5 m tall), with scattered taller trees including red oak (Quercus rubra), and possibly black oak (Q. velutina), rock chestnut oak (Q. montana) and scarlet oak (Q. coccinea). Gray birch (Betula tremuloides), and hickories (Carya spp.) are occasionally present in the canopy or subcanopy. Rarely, one may find red pine (Pinus resinosa). White pine (Pinus strobus) may dominate the canopy in areas that have not experienced regular fire disturbance. The understory is patchy, and often interspersed with large areas of exposed bedrock. Shrubs include blueberry (Vaccinium angustifolium and/or V. pallidum), scrub oak (Quercus ilicifolia), and huckleberry (Gaylussacia baccata). Chinquapin oak (Quercus prinoides) is occasionally present. Herbs are sparse and may include Canada mayflower (Maianthemum canadense), bastard toad-flax (Comandra umbellata), cow wheat (Melampyrum lineare), tall corydalis (Corydalis sempervirens), black chokeberry (Aronia melanocarpa), goldenrod (Solidago spp.), and at higher elevations, mountain white potentilla (Potentilla tridentata), and bearberry, (Arctostaphylos uvaursi).

Threats to these communities include forest succession due to fire suppression, and trampling. Prescribed fires help keep fuel loads down, limit succession and allow regeneration of pitch pine and heaths where present. As open summits provide great views, strategically located trails and education are needed to minimize human impacts such as trampling and littering. Protection of these habitats is warranted, due to associations with rare species. Solidago glutinosa spp. Randii (Rand's Goldenrod) is endangered. Apharetra purpurea (Blueberry Sallow) is listed as state special concern, and Catocala herodias (Gerhard's Underwing Moth) is considered threatened in Massachusetts.

Ridgetop Chestnut Oak: Also located in the Blue Hills are ridgetop chestnut oak woodlands. These communities are characterized by open forests of dry ridgetops, dominated by chestnut oak with an often dense understory of scrub oak, heaths or mountain laurel. Although fairly distinctive because of the ridgetop position, this is part of a continuum of dry, acidic communities that contain a variety of tree oak and pine species. Again, these dry upland woodlands grow on thin soil laid over acidic bedrock on ridges and upper south or southwest facing slopes. There tends to be deep oak leaf litter with slow decomposition.

The canopy is dominated, often completely, by Quercus prinus (Chestnut Oak). Associates may include other oaks, such as, Q. velutina (Black Oak), Q. rubra (Red Oak), Q. coccinea (Scarlett Oak), and Q. alba (White Oak); hickories, such as, Carya ovata (Shagbark Hickory) and C. glabra (Pignut Hickory); as well as, Acer rubrum (Red Maple), Tsuga canadensis (Hemlock), Pinus strobus (White Pine), and P. rigida (Pitch Pine). Juniperus virginiana (Red Cedar), Quercus ilicifolia (Scrub Oak), Q. prinoides (Dwarf Chinquapin Oak), Vaccinium angustifolium, V. pallidum, Gaylussacia baccata (Huckleberry) and (Kalmia latifolia) mountain laurel often form dense thickets. The herbaceous layer is usually sparse, but includes false foxgloves Aureolaria flava, A. pedicularia, and A. virginica, sedges (particularly Carex pensylvanica), Pteridium aquilinum (Bracken Fern), and Gaultheria procumbens (Wintergreen).

Chestnut oak acorns are particularly sought after by wildlife and are important food for white-tailed deer (Odocoileus virginianus), black bear (Ursus americanus), grey squirrels (Sciurus carolinensis), other small rodents, and Wild Turkeys (Meleagris gallopavo) and other birds. The understory of blueberries and huckleberries is used by many of these same species in areas with sufficiently large forests to provide all the habitat needs. Passerine birds of oak forests include Redeyed Vireo (Vireo olivaceus), White-breasted Nuthatch (Sitta carolinensis), Ovenbird (Seiurus aurocapillus), Black-and-white Warbler (Mniotilta varia), Scarlet Tanager (Piranga olivacea), Great Crested Flycatcher (Miarchus crinitus), and Downy Woodpecker (Picoides pubescens). This habitat is also important to Elaphe obsoleta (Black Rattlesnake), which is endangered in Massachusetts.

Oak-Hickory Forest: This is hardwood forest dominated by a mixture of oaks with hickories mixed in at a lower density. Part of the continuum of dry acidic communites documented above, these well drained sites, support a more variable flora.

The canopy is dominated by one or several oaks (Quercus rubra, Q. alba, Q. coccinea and Q. velutina). Mixed in are lower densities of one or several hickories (Carya ovata, C. tomentosa, C. glabra and C. ovalis). Other trees include with ash (Fraxinus americana), black birch (Betula lenta), sassafras (Sassafras albidum), and red maple (Acer rubrum). A subcanopy commonly includes hop hornbeam (Ostrya americana), flowering dogwood (Cornus florida), shadbush (Amelanchier arborea), chestnut (Castanea dentata), and witch-hazel (Hamamelis virginiana). Low shrubs are common and often diverse: maple-leaved viburnum (Viburnum acerifolium), blueberries (Vaccinium angustifolium and V. pallidum), beaked and American hazelnut (Corylus cornuta and C. americana), New Jersey tea (Ceanothus americanus), and gray dogwood (Cornus racemosa) are characteristically present. The herbaceous layer is also richer than in many oak forests. Plants typical of the herbaceous layer include Hepatica (Hepatica nobilis), goldenrod (Solidago bicolor), tick-trefoil (Desmodium glutinosum and D. paniculatum), wild sarsaparilla (Aralia nudicaulis), rattlesnake weed (Hieracium venosum), and false Solomon's seal (Maianthemum racemosa), and Pennsylvania sedge (Carex pensylvanica).

Rare plants associated with this community type include Acer nigrum (Black Maple, special concern), Cerastium nutans (Nodding Chickweed, endangered), Isotria medeoloides (Small Whorled Pogonia, endangered), Lespedeza violacea (Violet Bush Clover, state watch list), Lygodium palmatum (Climbing Fern, special concern), Ranunculuc fascicularis (Early Buttercup, state watch list), and Sphenopholis nitida (Shining Wedgegrass, threatened).

xiii According to Palmer, January, 1997: "The lowest zone floods at every high tide, or 730 times a year. This is practically the sole venue of Spartina alternifolia (saltwater cordgrass), a tall course grass, which grows atop its own peat. The middle zone of grassy meadows appears immediately above the first zone, and floods several times per month during spring tides. These spring-flooding meadows are dominated by mixed patches of Spartina patens (saltmarsh cordgrass), Juncus gerardii (black grass), and Distichlis spicata (salt-grass). Also found are saltmarsh asters, silverweed, and halberd-leaved orache. Where tidewater collects in low spots, a stunted form of S. alternifolia spreads thinly across bare peat, and is often associated with Salicornia europaea (slender glasswort) and Suaeda americana (northeastern sea-blite). The highest zone, a fringe between the middle zone and the adjacent upland, floods irregularly at extremely high tides. Palmer notes an abundance of waist-high marsh elder (Iva frutescens), which gives this zone a "shrubby look." Additional species include seaside goldenrod, sea lavender, quackgrass, holy grass, seaside alkali-grass and spearscale.

The three intertidal zones are visible only along the eastern border of the marsh, along a line from the edge of Gulliver's Creek to the boundary with Forbes Woods. The rest of the marsh is infested with the six to ten foot stalks of Phragmites australis that have taken over much of the area in recent years. Wetter conditions caused by runoff of freshwater from the woods allow a half-acre area of Typha angustifolia (narrow-leaved cattail) to persist among the onslaught. Similarly, Palmer surmises that a natural spring may account for another stand of cattails surrounded by a large stand of Scirpus robustus (saltmarsh bulrush).

xiiii The list below ranks the biggest Forbes Woods individuals of eighteen taxa, their diameters calculated at chest height.

Common Name	Diameter	MA Record
Sugar Maple	4'5"	5'0"
Black Oak	4'4"	3'10"
Black Cherry	3'11"	3'10"
White Ash	3'10"	6'3"
White Oak	3'8"	6'9"
Northern Red Oak	3'5"	8'5"
White Pine	3'5"	5'6"
Norway Maple	3'3"	4'0"
Eastern Hemlock	3'2"	4'4"
American Elm	3'0"	6'4"
Beech	2'9"	3'1"
Basswood	2'9"	7'7"
Shagbark Hickory	2'4"	3'7"

xx NepRWA River Walk Proposal

xxi Thomas Palmer, Flora of the Neponset Estuary, January, 1997

Sweet Birch	2'1"	3'7"
Norway Spruce	2'0"	4'0"
European Larch	1'9"	2'4"
Black Locust	1'8"	5'3"
Swamp Tupelo	1'3"	2'5"

The west side woods feature a diverse understory that likely reflects introductions from years past, and includes flowering dogwood, guelder rose, privet, Hercules club, and American holly. Large beds of fern, varied with patches of partridgeberry, brighten the pine-needle duff under the conifers. However, the richness in tree species is not matched by a comparable diversity in native wildflowers and other herbaceous plants. Absent are orchids, club mosses, trillium, baneberry, violets, and cucumber-root. Some early-flowering woodland herbs do occur (wood anemone and starflower). Interestingly, however, the area seems more notable for certain non-natives rarely seen locally and doubtless introduced: standing bugle, giant Solomon's seal and white dead nettle.

xiv Kenney and Burnes, Massachusetts NHESP, p. 5

xxv Pam Thomas (New England wildflower Society), 2004, page 9

xxxii Adults may be found from late October to the end of January. Females lay their eggs in the fall in bark crevices, under lichen, or in moss on any part of the tree. The eggs are light green at first, later changing to bright orange.

xvvii Kennedy, Laurie E., et al., *The Neponset River Watershed 1994 Resource Assessment*, Office of Watershed Management, Massachusetts Department of Environmental Protection, North Grafton and Boston, 1994, p. 4-15.

Section 5: Open Space Inventory

Common	Address/Location	Ownership/	Size	Zone	Description/Notes		
Name	Assessor's Number	Management					
TOWN OF MIL	TOWN OF MILTON PARKS AND RECREATION						
Crane Field or Belcher Circle Park	Granite Place & Belcher Circle	Town of Milton Park Department	1.8 AC	С	Passive recreational, maintained green area		
Andrews Playground	Granite Place, Belcher Circle, Howe St., Franklin St., Alvin Ave. G-11-28 G-12-32	Town of Milton Park Department	12.1 AC	С	Active recreation area, a "playground." See MMP P.100. Note: area now has one baseball diamond and three softball diamonds. Also three tennis courts with a Town permit required for use. The facility is located on Milton-Quincy line with active Quincy population usage. Hilly area provides "sledding" in winter. All facilities used intensively. Playground is handicap accessible by paved pathway. Some equipment suitable for handicap children. Meets the new Accessibility Guidelines for Play Areas (ADAAG).		
Mary C. Lane Playground	Bordered by Churchill's Lane and Randolph Ave. F 24-4	Town of Milton Park Department	3.38 SF	В	Active playground especially for neighborhood use-see MMP P. 99. Playground is handicap accessible by paved pathway via Randolph Avenue entrance. Some equipment suitable for handicap children. Meets the new Accessibility Guidelines for Play Areas (ADAAG).		
Shields Playground	Located between Nos. 374-430 Eliot St. E-30-28 E-30-58	Town of Milton Park Department	4,791 AC 6,949 SF	СВ	Note: Both parcels originally under School Department and listed as such Assessors. See MMP P. 99. Receives intensive use for active and passive recreation. Some use by non-Milton residents. Playground is handicap accessible by pathway from parking lot. Some equipment suitable for handicap children. Meets the new Accessibility Guidelines for Play Areas (ADAAG).		
Ash Street Land	Three parcels of land off Lyman Rd and north of Ash Street and abutting the disposal area. See also Site Nos. A16 & A17. I 6-63, 64, 65.	Town of Milton Park Department	5.89 AC	С	Undeveloped land abutting disposal area. In 1964, the Town Meeting voted to transfer care, custody and control of these three town owned parcels to the Park Department for playground purposes.		
Captain's Landing	Abutting No. 144 Adams Street, to rear, Neponset River and parking lot owned by Wharf St. LLC F10-6	Town of Milton Park Department	16,700 SF	A	Small boat launch area accessed by Town's permanent easement over adjacent privately owned parking lot and boat storage area		
Town Landing	F-11-2 F-11-1	Town of Milton Park Department	2.51 AC 26,279 SF	Bus	Parcel F11-2 is a green space with benches and path. Parcel F11-1 contains an historical monument on green space, the former Milton Police Station, an historic building leased to the Milton Yacht Club, a boat launch leased to the Milton Yacht Club, and a recently created waterfront park with benches and walkways. The parking lot in this parcel is under the jurisdiction of the Board of Selectmen. The area is used for boating, fishing and passive recreation.		

Common Name	Address/Location Assessor's Number	Ownership/ Management	Size	Zone	Description/Notes
					Original deed reference is Suffolk Book 3, Folio 165, 1655. Owners were Roger Billing and John Gill. Gill's proposal to the 1658 Town Meeting that a public landing place be laid out on his land was accepted and Selectmen's records indicate that the bounds were laid out "by the mill next to the Neponset" on December 4, 1658.
					The first recorded plan is at Norfolk Plans, Book 109, Page 146 (1835). Title vested in Milton by legislative act in 1873. (Acts of 1873, Chapter 265). The landing was managed by a commission and then put under the management of the Park Department by Town Meeting vote in 1918.
John L. Kelly Field aka The Town Field and Brook Road Playground	Westerly side of Brook Rd. from Lincoln St. to opposite St. Mary's School D- 5-1	Town of Milton Park Department	10,627 SF	С	See MMP P. 96 (Note: track has been eliminated). Intensive active recreation area during open weather seasons. Baseball fields and tennis courts. Adjacent to Pierce Middle School and used for various school activities. Federal funds were used to make improvements. Playground is handicap accessible by paved pathway from St. Mary's Road. Some equipment suitable for handicap children. Meets the new Accessibility Guidelines for Play Areas (ADAAG).
Turner's Pond	Bordered by Central Ave., Brook Rd. & Canton Ave. E-18-30 E-18-29	Town of Milton Park Department	25.77 AC 5,500 SF	С	Obtained by Town in 1955 for Park or Playground purposes. See MMP P. 105 Note: Fishing is limited to Milton residents only and Town permit is required. Area receives much use for passive recreation and "rest area" for travelers such as service truck drivers, etc. Note: Lot E-18-29 containing 5,500 SF and Lot (lot-containing garage get reference). Located at Brook Rd. and Canton Ave. entrance to pond obtained by the Town subsequent to lot E-18-30. See also site no. K10 and K16. Pathway around the pond is accessible for walkers and joggers.
Poleski Park	Northerly Corner of Lincoln St. at Brook Rd., abutting Kelly Field. D34-17 & D34- 19	Town of Milton Park Department	17,263 SF 4,573 SF	С	Prominent landscaped green area used for passive recreation and containing veteran's memorial. Note: Title to adjacent lot, D34-18, may be clouded.
Lamb Field	One Gile Rd. behind High School D65-10	Town of Milton Park Department	14.81 AC	A	Adjacent to part of High School complex (see MMP P. 97 and site number B5) also adjacent to and part of Milton athletic area on west side of Gile Rd. (see site number A-33). Recreational facilities include softball/baseball fields, basketball courts and concession stand
Copeland Athletic Complex – Francis X. Brooks Football Field. Undesignated	Bordered by Gile Rd., Pine Tree Brook, Blue Hills Pkwy and "Pine Tree Brook Homes" complex. D-65-6A, 6B, 6C	Town of Milton Park Department, management of area not formal or final.	22.71 AC	A	Site is adjacent to and part of Lamb Field/High School complex (see site number A32 and B5). See HCC, item 38 and 43. 8.31 AC reserved for conservation, 14.4 AC for recreation; Lighted Football Field with artificial surface and track.
Pagoda Circle	Bordered by Pagoda St., Hudson St. and Savin St. C70	Town of Milton Park Department	1.52 AC	С	See MMP P. 102. Vegetated hillside and open space with small baseball diamond
Brush Hill Road Playground, Hollingsworth Shelter or Hollingsworth Field	Westerly side of Brush Hill Rd. abutting Neponset River near Boston boundary. C2	Town of Milton Park Department	5.85 AC See Assessors Files	С	See MMP P.99. Note: playground use has been discontinued and area is idle. Flood control easement line covers much of area.

Common Name	Address/Location Assessor's Number	Ownership/ Management	Size	Zone	Description/Notes
Algerine Corner	Corner of intersection of Pleasant St. and Centre St. I-40-10	Town of Milton Park Department	19,750 SF	В	Maintained green area with landscaping; passive recreation: See Teele's History of Milton for historical account.
TOWN OF MIL	TON CONSERVATION	ON, WATERSHED	PROTECTIO	N AND V	ARIOUS OPEN SPACE
Neponset River Salt Marsh	East of Granite Ave. bordered by Neponset River, City of Quincy and Norfolk County Recreational Facility G-56, 57 & 58	Town of Milton See HCC, Item No. 3, 11 & 12	33.41 AC	В	Area includes two abandoned rights of way (2.063 AC) upland (4.761 AC) and salt marsh (26.588 AC) acquired by the Town for "Natural Resources and Open Space." Area provides habitat for wide variety of migrating and indigenous birds: river population includes smelt, striped bass, blue fish, flounder, cod and an occasional harbor seal. NOTE: Marshlands subject to flooding during times of spring tide conditions and abutting residential areas have experienced flooding in extreme tidal surges, most recently in February 1978.
First American Railway Monument	Westerly side of Granite Ave. opposite Street intersection G-42	Town of Milton	~3,000 SF	С	Green area with stone monument and tablet citing First Railroad built in America in 1826.
No common name	Parcel adjacent to number 11 Lochland St. G-52-8	Town of Milton (tax taking)	1,950 SF	С	Small parcel apparently maintained by abutter.
No common name	Parcel across street from number 51 St. Agatha Rd. G-43-10 & 11	Town of Milton (tax taking)	2,876 SF	С	Small green area abutting S.E. Expressway
Sheldon Corner	On Adams Street adjacent to Sheldon Building G-43-14	Town of Milton DPW	2,706 SF	С	Small green area abutting Expressway "to be maintained in park like manner." Contains bench and shade tree and facilities for fluoridation metering station.
Ricci Land	Intersection of Brook Rd. and Centre St. adjacent to 954 Brook Rd. I-42-13 & 13A	Town of Milton See HHC, Item No. 25, 34 & 46	20,643 SF		Corner parcel maintained in natural condition.
No common name	N.W. Corner Brook Rd. and Centre St. Intersection None	Town of Milton DPW	~.5 AC		Part of street layout left in natural state; maintained for sightline clearance.
Milton Cemetery	Business address: 211 Centre St. All areas located in Section "I"	Town of Milton Cemetery Trustees	104.5 AC	Var.	See 1985 Cemetery Master Plan for land maps, future work and water bodies. See also MMP P. 68: AC provided by Milton Cemetery from 1985 Master Plan.
Dean Road Quarry (Filled) aka "Lindsey	Four landlocked parcels located behind numbers 9-37	Town of Milton Conservation Commission	34,668 SF	С	Filled quarry hole deeded to the Town Conservation Commission in 1972 for protection and development of natural resources, for watershed and recreational purposes; undeveloped natural site.

Common	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's	Management			
	Number	J			
Land"	Dean Rd. I-15-1, 2, 3B, 12	(Deed)			
No common name	Three parcels abutting Randolph Ave. and Town disposal area. See also site nos. A15 and A16	Town of Milton taking for conservation and municipal purposes	6.0, 18.2, & 29.7 AC	A	Parcels 10A and 10C reserved for conservation purposes (23.7 AC); Parcel 10B reserved for municipal purposes. Parcel 10A contains wetlands; Parcel 10C contains steep slopes and archeological sites; all areas remain in natural condition. See HCC item no. 51 and 1982 Town Meeting Article 35.
No common name	I-38D-10A, 10B, 10C. Adjacent to No. 122 Clapp St. D40-19	Town of Milton	38,273 SF	С	Lot obtained by tax taking and left in natural condition.
No common name. Former site of Vose School, part of Town Hall area	Bounded by Clapp St., Walnut St. and Engine Rd. Part of D52-4	Town of Milton	?	С	Adjacent to Town Center Complex; landscaped green area in park-like setting contains memorial stone; basketball court; memorial bench.
Unquity Brook	3 locations: 2 on Rowe St. and 1 on Waldeck Road H-26-16, 27-2, & 29-3	Town of Milton DPW	10,298 SF	С	Unquity Brook channel control.
Wendell Brook Conservation and Water Management Area	Southerly corner of Highland St. and Canton Ave. K2-1A	Town of Milton Conservation Commission funded and maintained by DPW	5.1 AC	A	Acquired for open space and natural resources under Title VII of U.S. Housing Act of 1961. See MMP P. 104. See HCC Item No. 27.
Wendell Park or Wendell Brook Greenway	Center strip of Wendell Park (Street Layout) D55, 56, 59	Town of Milton DPW		С	Wendell Brook runs down center of 100' wide green area - landscaping remains in natural condition bordering Wendell Brook and area grassed bordering roadways. See MMP 104.
Pine Tree Brook Greenway	Bordering Pine Tree Brook from Blue Hill Ave. to Thacher St. Section D	Town of Milton Conservation Commission, maintained by DPW		Var.	Variable width, variable condition greenway bordering Pine Tree Brook. Part of flood control projects. For history of flood control project, see HCC, 1964 and following years.
No common name	Northerly side of Elm St. at Pine Tree Brook D-59-29	Town of Milton	2,036 SF	С	Small-unimproved parcel adjacent to Pine Tree Brook greenway.
No common name	Adjacent to No. 693 Canton Ave. and High School Land	Town of Milton	964 SF	А	Parcel maintained in natural wooded condition.

Common Name	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's Number	Management			
	D-65-8				
Pope's Pond	Westerly side of Blue Hills Pkwy., Pope's Pond and surrounding areas. C34A-1, 2, 3, 3A, & 4	Town of Milton, Conservation Commission maintained by Public Works Department	48.61 AC	В	Acquired for conservation open space and water control purposes. See HCC item no. 2 and item no. 26. (No. See Assessors for history of parcel. Flood Control project. See also MMP P. 103. Area includes pond utilized year round for fishing, and other forms of informal recreation. Other areas remain in natural wooded condition. See also site K11. Bridge is handicapped accessible via pathway from Lafayette Street.
Rabbi Jacob Hochman Park	Intersection of Blue Hills Pkwy and Blue Hill Ave. C5-13	Town of Milton	4,032 SF	С	Prominent corner, landscaped green area containing memorial to Jewish War Veterans: contains planting and flagpole. See HCC, item no. 40
McGinley Land	In the vicinity of the rear of 1059 Canton Ave. B8-42	Town of Milton Conservation Commission "Control and Management" (Deed)	1.66 AC.	A	See HCC, item no. 24. See also MMP P. 105; acquired for the protection a development of natural resources and protection of watershed.
Town Farm or Poor Farm	At the end of Gov. Stoughton Lane K6-2	Town of Milton, managed by Selectmen, who are the Trustees of the Governor Stoughton Trust	34 AC	A	The property includes three dwellings, a large barn and the Town's Animal Shelter. Two dwellings are occupied by tenants and one field is leased for pasturage; proceeds are applied to account, which is used for the benefit of the poor of the Town. Use of the property is provided for in the will of Governor William Stoughton. See The History of Milton Mass., A.K. Teele (pp. 164-165) and A History of Milton, 1957, Edward P. Hamilton, (pp. 165-168).
Town Forest	Bordered by Harland Street, Copeland Family Foundation Open Space on Hillside Street and private lots (NEED LOT REFERENCE)	Town of Milton	34 AC	AA?	Hillside and wetlands with natural
No common name. Lands taken by State for abandoned I- 95 Highway Project	1200 Brush Hill Rd on grounds of Milton Nursing and Rehabilitation Center A11-1; A11-?	Town of Milton	0.50 AC?	A	Former state parcel 3-13; Former state parcel 3-2-T. Parcel A 11-1 granted "for conservation and preservation purposes".
Same as above.	Easterly corner of intersection of Brush Hill Rd. and Milton St. A-14-18A	Town of Milton	0.23, 0.10 AC	A	Former state parcel 3-15; Former state parcel 3-16 granted "for conservation and preservation purposes.

Common Name	Address/Location Assessor's Number	Ownership/ Management	Size	Zone	Description/Notes
Same as above.	Northerly side of Brush Hill Rd. near Milton St. intersection and abutting DCR Neponset River Reservation land	Town of Milton	1.42 & 1.49 AC	A	Former state parcel 3-18; Former state parcel 3-17 Granted "for conservation and preservation purposes."
No common name. May be known as Jenkins Terminal Land	A 15-9A & 9B On the banks of and under Neponset River from the Central Ave. bridge westerly E 24-48 & Part 50	Town of Milton Conservation Commission	31,728 SF 186,067 SF	С	NOTE: AC does not agree with Assessors figures (see copies of deed, DCR plans and Town of Milton roll plan 6-5). Most of the area is under the Neponset River and the DCR has flood control easements over much of the area. See HCC item no. 33.
No common name.	Assessors No. E 2-1	Town of Milton Tax Taking in 1971?	35,996 SF	Bus.	Title may be clouded; see Assessors records. According to Assessors plan 27,516 SF are under water of Neponset River and 8,480 SF. are above. See Assessors plan E 2-1
No common name	Intersection of Ruggles Ln. and School St. E 19-11B	Town of Milton	1,720 SF	В	Given to the Town in 1957 (Article 55 1957 Town Meeting). Land over which the Town had already taken an easement for Pine Tree Brook
No common name.	Southwest corner of intersection of Brook Rd. and Canton Ave.	Town of Milton Conservation	11,173 SF	С	See HCC items 28, 29; NOTE: portions of the site contain gardens with annual plantings by local garden clubs. Other maintenance by Town DPW
Pine Tree Brook Watershed Areas; including among other areas, lands known as the Town Forest and land labeled "Town of Milton" on Land Use Map and extending over various other lands such as Wollaston Golf Course and DCR Blue Hills Reservation		See HCC for various items indicated on 1966 Flood Control Plan See also Town of Milton Board of Assessors plan for current status of individual parcels	See 1966 plan and current Assessor's Plans. See also map of flood control area attached.	Var.	Areas within the watershed include land owned by the Town of Milton, lands owned by others but with rights or easements held by the Town of Milton for flood control purposes and for the protection of Pine Tree Brook Watershed. See Town of Milton 1966 Annual Report Articles 56, 57, and following Annual Report NOTE: Areas shaded on land use map are areas indicated on 1966 Flood Control Map do not, in any way, infer ownership. See MMP P. 104 and P. E1-3. See also Appendix D and Site K4.

Common	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's	Management			
	Number				
	flood control in Appendix D. Various				
No common name	Land on Reedsdale Rd. behind the Central Library and abutting land of Milton Hospital and Milton Police Department Part of J 13-4	Town of Milton/Conservation Commission	1.34 AC	В	See HCC item no. 7. The area is wet and left in natural condition.
No common name.	Alvin Ave. Area G 12-19	Town of Milton Ch. 60, Sec. 77	9,380 SF	С	Wet, overgrown area near Andrews Playground
No common name.	Alvin Ave. Area G 20-25	Town of Milton Ch. 60, Sec. 77	461 SF	С	Abuts private land
No common name.	Bonad Rd. area D 30-3A, 4A	Town of Milton Ch. 60, Sec. 77	980 SF	С	Abuts private land
No common name.	Bradford Rd. Area	Town of Milton Ch. 60, Sec. 77	1,540 SF	С	Abut cemetery land
No common name.	Courtland Circle Area G-58-25	Town of Milton Ch. 60, Sec. 77	3,706 SF	С	Functions as part of street layout
No common name.	Elmwood Ave. Area G 11-30	Town of Milton Ch. 60, Sec. 77	2,061 SF	С	Abuts Andrews Playground
No common name.	Hollingsworth Rd. Area C 63-18 & 19	Town of Milton Ch. 60, Sec. 77	5,793 SF	D1	Abuts private land
No common name.	Thacher St. D 11-27	Town of Milton Ch. 60, Sec. 77	811 SF	С	Abuts private lands. Question about title?
Canton Avenue Watering Trough	Intersection Canton Ave. and Centre St.	Town Maintenance			See MMP P. 101. Annual plantings by Garden Clubs
Randolph Avenue Watering Trough	Intersection Randolph Ave. and Pleasant Street	Town Maintenance			See MMP P 101. Annual plantings by Garden Clubs
Brush Hill Road Corner	Corner of Brush Hill Rd. and Blue Hill Ave.	Town Maintenance			See MMP P. 101. Prominent landscaped corner with annual plantings by Garden Clubs.
No common name.	intersection of Canton Ave. and Blue Hill Ave. near Green St.	Town Maintenance			Prominent landscaped corner with annual plantings by Garden Clubs.

Common	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's Number	Management			
Babcock Street Islands	See MMP P 102	Town of Milton			See MMP P. 102.
Morton Road Island	See MMP P 102	Town of Milton			See MMP P. 102.
Gaskins Road Island	See MMP P 102	Town of Milton			See MMP P. 102.
Grafton Ave, Plymouth Ave, Brookside Park, Academy Lane, Park St, Maple St, Chilton Park, Union Ave, Brook Rd., Edge Hill Rd. Churchills Lane	Various	Town of Milton Public Ways			These streets contain center strips (grass, trees, shrubs, etc.) over some or all of their length or islands, etc. with grass or plantings, etc.
COMMONWEA	LTH OF MASSACH	USETTS PERMAN	ENT OPEN	SPACE	
Blue Hills Reservation	See Land Use Map (Brown Color Code) N 15-2 & 3 M 10 M 3-1, 2 & 3 M 3-7A M 3-11 M 3-5A L 6 (Add recent acquisitions, e.g. Carberry Land)	Comm. Of Mass. Department of Conservation and Recreation	?	A	See MMP. P. 108-109A. See also The History of Milton, Mass. By A.K. Teele, History of Milton by Edward Pierce Hamilton. Landscape architect was Charles Eliot. See also various Department of Conservation and Recreation publications for descriptions of facilities which include Houghton's Pond for swimming and fishing, the Trailside Museum, the Chickatawbut Nature Education Center and extensive hiking, biking and cross country ski trails. The "Hills" are one of the largest urban parks in the world. Trailside Museum is jointly managed by the Mass. Audubon Society and support is provided by the "Friends of the Trailside Museum." The "Friends of the Blue Hills" provide information and support for the park. The Hills attracts tourists and area residents. Panoramic views extend into New Hampshire, Rhode Island, Boston Harbor and Central Massachusetts. (Since MMP publication in 1974, more than 50 AC have been added to the reservation in the area of Assessors P M3 area.)
Fowl Meadow (Part of DCR Neponset River Reservation)	See Land Use Map (Brown Color Code) A 11	Comm. Of Mass. Highway Department	?	А	See MMP p. 109-A. See also notes to site no. D 1 (above) for reference sources. Area is actively used by birdwatchers and other wildlife enthusiasts. See also site nos. K5, K7 and D3.
Neponset River Reservation	See Land Use Map (Brown Color Code) for various parcels of land extending from the Fowl Meadow and along the River at	Comm. Of Mass. Highway Department	?	А	See MMP p. 109-A See also notes to site no. D 1 (above) for reference sources. River is dammed at Milton Lower Mills separating tidal water from fresh water. Fresh water portion is being rejuvenated for fishing and provides wildlife habitat for wide variety of migrating and indigenous birds. Varieties of fish are re-populating the tidal portion the river including striped bass; harbor seals are also present from time to time. See also site nos. D2 & K7.

Common Name	Address/Location Assessor's Number	Ownership/ Management	Size	Zone	Description/Notes
	various areas to the salt marshes at the Granite Ave. drawbridge.				
Forbes Woods	Lot A on 2002 Plan (provide reference) is located off the northerly side of Adams Street and bounded by the Neponset Reservation/Neponset River Estuary ACEC on the north.	Comm. Of Mass. Division of Conservation and Recreation	23.693 AC	A	Acquired from the Forbes Family Trust, which owned this property since Colonial times, by the Commonwealth in 2002. Area is for passive recreation and has walking paths. Includes old growth forest including a Champion Black Cherry and areas of historic and archaeological significance. Preservation of this area also maintains woodland views from Boston and I-93.
Blue Hills Parkway	See Land Use Map (Brown Color Code) from Canton Ave. to Boston Line	Comm. Of Mass. Highway		А	Heavily traveled Parkway with 32' green strip with trees in the center; northern end (near Boston border) features prominent landscaped island with seasonal plantings. See MMP p. 1
Brush Hill Road & Truman Highway	See Land Use Map (Brown Color Code) from Boston line to Boston line.	Comm. Of Mass. Highway Department			Heavily traveled parkway and roadway with center strips in areas with trees ranging in width from 4' to 20'. See MMP p. 109.
Neponset Valley Parkway	See Land Use Map (Brown Color Code) from Blue Hill Ave.	Comm. Of Mass. Highway Department		A	Layout of "parkway" radius from 190' to 330' with true plantings along width of roadway layout; beyond roadway land remains natural and poorly drained areas. See MMP p. 109.
"Presidents Golf Course" or "Norfolk County Recreation Facility". Also known as "Old" Wollaston Golf Course.	Easterly side of Granite Ave. straddling the Milton- Quincy boundary. G 57-1 & 2 G 37-16	Norfolk County	56.4 AC according to deed located in Milton. See Assessors records. (How much is in Milton? All 54 AC?)	В	The "recreational complex" consists of 56.4 acres of land in Milton and y in Quincy. (MMP p. 109-A). Currently the facilities include an 18-hole golf course, tennis courts and clubhouse. The land is hilly with an elevation of 100 feet at the summit, which provides a magnificent panorama. In winter, the area is used for ice-skating, sledding, cross-country skiing and other recreation. The facilities are open to the public receive intensive use from residents from surrounding cities and towns. Some marshlands and wetlands are present in low areas.
PRIVATE LAN	D HELD IN PERMAN	IENT OPEN SPAC	E		
No common name. Eustis - Jeffries Conservation Lands	Lands off of Canton Ave. abutting the Blue Hills Reservation and to the rear of No. 1370 Canton Avenue (The Suffolk	Individual private ownerships N/F Jeffries and/or Eustis Conservation restrictions to be	80.29 AC	А	See HCC, Item no. 39; See also Board of Selectmen Deed file envelope number 782; See also plan in Town Engineering Dept. Registry of Deeds file envelope D-9 and see Norfolk County registry of Deeds, Pl Bk. 281 Pl No. 295 A and B. Perpetual Conservation Restrictions were granted to the Town of Milton in 1978 for several parcels of land "intended to retain said parcels predominantly in their natural scenic and open condition in order protect the watershed and other natural resources of the Town of Milton."

Common	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's	Management			
	Number Resolves House) L 9- 13E, 4, 14A & 14B	administered on behalf of the grantee by the Conservation Commission of the Town of Milton			
No common name. Thomas Motley Reservation	South of Brush Hill Rd. and North of Milton St. A 14-2	Milton Land Conservation Trust, Walter S. Robbins, et.al, Trustees	4.245 AC	A	Vacant Land granted in 1971 (4798-49) for "conservation, charitable, educational and scientific purposes." Note: the southerly border of the parcel is located in the center of unnamed brook.
Milton Healthcare Lawn	Intersection of Brush Hill Rd. and Neponset Valley Pkwy: "front lawn of healthcare facility" A 12-5	Lawn area is under a conservation restriction granted by prior owner Thomas J. Flatly to the Town of Milton to be enforced by Milton Conservation Commission. See Norfolk Registry of Deeds Book 6039, Page 546	~ 4.6 AC	A	See Selectmen's Deed File envelope no. 804. "Grantor intends that this grant be an easement in gross in perpetuity Restrictions are intended to maintain the area in its "natural, scenic and open condition for the scenic enjoyment of the general public in order to protect the watershed and other natural resources and to preserve the aesthetic beauty of the premises and of the Town of Milton. See Selectmen's file No. 804 for copy of the instrument and restrictions contained therein. See also site A42
Gun Hill Pond	Southerly side of Gun Hill St. at Randolph Ave. I 37-26 & 27	Owned by Trustees of Milton Academy, managed and maintained by Town of Milton Park Department	2.939 AC	A/B?	Prominent corner with pond, marshes, wetlands and upland. Pond is weed-choked. No current recreational use. See also site K9.
Copeland Family Foundation Open Space	Northwest side of Hillside St. between Randolph Ave. and Ford Ranch Rd. K5-37	Town of Milton	23.6 AC	A	Site A55 was originally acquired by the Town for school purposes, but large area is wetland. In 2004, land was purchased by the Copeland Family Foundation to be kept in existing condition as open space. Approximately one third of the land is under the Pine Tree Brook Water shed easement. See site nos. K4 and Appendix D.
No common name. Flatley Conservation Land	Southeasterly of Deerfield Dr. and Arrowhead Lane and northerly of Town of Milton Land. K7-8	Town of Milton	10.26 AC	A	Conveyed to the Town in a deed dated October 25, 1984 (but not recorded as of March 27, 1986) for the "sole purpose of conservation in perpetuity." Part of the land is part of the "Harland Street Flood Control Area." See sites A41, and Appendix D.
"Home Inc. Conservation Easement: or Lamb Property Conservation	Area bounded by Canton Ave., Blue Hills Pkwy and Gile Rd. surrounding "Home Inc." housing	A conservation restriction accepted by the Conservation Commission on	Total area is 32.76 ac. /conservation area is 14.02 ac.	D1	A buffer zone surrounding most of the perimeter of "Home, Inc." The Conservation Commission accepted the 14.02 AC Conservation Restriction in June 1986. See site no. E 14. (Boundaries were revised to swap a parcel with the school department, at the new Blue Hills Parkway entrance to Milton High School in 2002; area was slightly changed.)

Common Name	Address/Location Assessor's Number	Ownership/ Management	Size	Zone	Description/Notes
Restriction"	development. D 65-6	land owned by Home, Inc.			
Hutchinson's Field	Easterly side of Adams St. at summit of Milton Hill F 9-1	Trustees of Public Reservations	9.65 AC	А	An open field with spectacular panorama views of Boston and Boston Harbor as well as the Neponset River Reservation and parts of Quincy. The land slopes dramatically from an elevation of 140' to sea level at the Neponset River. Dedicated for open space and conservation, it is open to the public and utilized year round for passive recreation. See also site no. G-3 and G-4.
no name	Lot 2A – Bartons Lane Subdivision Plan as located on Plan #131, Norfolk Plan Book No. 404, 1992; deed at Norfolk 18890, page 131	Town of Milton Conservation Commission	?	С	This land was given to the Town of Milton by the Barton's Lane Realty Trust in 2004, to be managed by the Conservation Commission
Heath Property	Two lots adjacent to the Forbes Woods	Heath Family, conservation easement to be held by the Milton Land Trust	About seven acres (need exact number)	A	The Heath family has agreed to place these two parcels into a permanent conservation easement, no public access, to be managed by the Milton Land Trust. This easement will protect the Neponset River and the Forbes Woods, which does have public access. The parcels contain notable species of trees as well as historic Indian sites.
No name	Hillside Street Lot (provide reference) Last lot before Hillside Pond	(private owner)		AA	Town of Milton accepted placement by owners into a permanent conservation easement, with right to locate septic system on property, no public access
PUBLIC PARC	ELS WITH CURREN	IT UNPROTECTE	RECREATION	ONAL AN	ID OPEN SPACE OR FUTURE POTENTIAL
Town Farm or Poor Farm	At the end of Gov. Stoughton Lane K6-2	Town of Milton, managed by Selectmen, who are the Trustees of the Governor Stoughton Trust	34 AC	A	The property includes three dwellings, a large barn and the Town's Animal Shelter. Two dwellings are occupied by tenants and one field is leased for pasturage; proceeds are applied to account, which is used for the benefit of the poor of the Town. Use of the property, for the benefit of the poor of Milton, is provided for in the will of Governor William Stoughton. See The History of Milton Mass., A.K. Teele (pp. 164-165) and A History of Milton, 1957, Edward P. Hamilton, (pp. 165-168).
Central Avenue former MBTA lot	Next to MBTA's "Central" stop	Milton Board of Selectmen	7045,5 square feet, Assessors Section E, Block 24, Lot 47, deed at Book 20400, Page 240, Norfolk Registry.	Business	Parking lot, purchased by the Town in 2004, is currently under part of the former Hendries ice cream plant.
Former Rand property	Central Avenue, next to Turners Pond	Milton Board of Selectmen	Two parcels, Assessors Section E,	С	Property contains a dilapidated garage and open space.

Common	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's Number	Management			•
			Block 18 , Lot 34 and Lot 33. Deed at Book 20375, Page 354, Norfol Deeds.		
Collicot School and Mary A. Cunningham School	No.80 and No.44 Edge Hill Road (Schools and grounds are adjacent) H 42-Part1	Town of Milton School Dept.	11.57 AC	С	Both schools serve elementary students and are scheduled for extensive renovation. Collicot School is scheduled to be demolished and replaced by a new school. Both buildings share the 11.57 AC. See MMP p. 46-57 for description and evaluation of these schools. When complete both schools will have full gym facilities and small playgrounds. The schools also use Cunningham Park across the street, described elsewhere in this inventory.
No Common Name	Edge Hill Rd. abutting land of Cunningham School H 40-9	Town of Milton School Dept.	25,168 SF	С	Wooded lot left in natural condition with periodic maintenance by Town DPW
Glover School	255 Canton Avenue E 17-7	Town of Milton School Dept.	10.79 AC	C, B	See MMP p. 46 and p. 50-51. Elementary School in a picturesque setting abutting Turner's Pond recreation area; small soccer field and handicapped accessible playground.
Tucker School	Corner Blue Hills Parkway and Oak St. C-8-20	Town of Milton School Dept.	77,745 SF	С	See MMP p. 46 and p. 52-53. School recently renovated and added on to full sized gym, small handicapped accessible playground.
Milton High School	25 Gile Rd. (off Canton Ave.) D 65-9	Town of Milton School Dept.	13,477 AC	A	See MMP p. 46, 54-55. Formerly the middle school. Recently renovated and added on to for the high school. Facility includes the Copeland Field House containing a track and other athletic facilities. Site is adjacent to Park Department athletic facilities described elsewhere in this inventory.
Pierce Middle School	391 Brook Rd. D 38-1, D 35 pt. 13	Town of Milton School Dept.	8.77 AC Pt 20,050 SF	С	See MMP p. 47 and p. 58-61. Buildings recently renovated and added onto. Site includes gym and small field. School also uses Kelly Field (see site A 23) fields and tennis courts.
East Milton Fire Station "Engine 2"	525 Adams St. H 6-13	Milton Fire Dept.	7,020 SF	Bus.	
East Milton Branch Library	334 Edge Hill Rd. H 12-9	Milton Library Trustees	26,439 SF	С	See MMP p. 41. Library has attractive landscaped grounds front and rear.
No Common Name	Parallel to west side of Granite Ave. opposite Bassett St. & Wood St. G 42	Town of Milton maintained by DPW	?	Bus.	Parking area; contains small landscaped area with seasonal plantings and historical site and green area (see site no. A 4).
Libby Road Pumping Station	Libby Road G 46-17	Town of Milton DPW	5,818 SF	С	Sewer pumping station with small green area surrounding

Common	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's	Management			
	Number				
Public Works Yard	629 Randolph Ave. J 14-7	Town of Milton DPW	8.739 AC	A	Town public works garages and materials storage areas including water, sewer, highway, forestry divisions and a central maintenance garage, as well as administrative offices. Small building houses school construction offices. Park Department stores equipment and vehicles in the garages. Natural vegetation provides buffer to Randolph Ave.
Central Library	476 Canton Avenue J 13-1	Milton Library Trustees	1.36 AC	В	See MMP p. 41. Landscaped green area around building.
Police Headquarters	40 Highland St. J 13-4	Town of Milton Police Dept.	8.586 AC	В	*Note: acreage includes 1.34 AC listed in site no. A 52 (Conservation land). Other sections are poorly drained and in natural condition. Front areas are prominently landscaped. See MMP p. 39-41.
Town Hall* (includes surrounding grounds with various memorials, Baron Hugo Gazebo, Central Fire Station and storage garages)	525 Canton Ave. * D 52-4	Town of Milton*	5.29 AC	В	*See also site no. A 27. See MMP p. 37 for Fire Station description. Area is prominent, well landscaped and may be considered the Town center due to geographical location and governmental activity. Area has various seasonal activities, such as summer concerts and parades.
Kidder Branch Library	97 Blue Hills Parkway C 5-19	Town of Milton Library Trustees, leased to Milton Community Schools	24,472 SF	С	See MMP p. 41. In front is landscaped area; building is now used for an extended day kindergarten program serving Milton residents on a fee basis.
Blue Hills Fire Station, "Engine 4"	815 Blue Hill Ave. B 9-9	Town of Milton Fire Dept.	1.0 AC	А	Prominent corner location, rustic style building and setting. See MMP p. 37.
No Common Name	Brook Hill Rd. E 21-12	Town of Milton Wire Dept.	4,800 SF	С	Small storage building on a thin strip of land between street and brook.
Miller Ave. Housing	65 Miller Ave. I 19-21	Milton Housing Authority	3.122 AC	С	Four buildings with 40 housing units.
Milton Housing Authority	Various locations	Milton Housing Authority			The Housing Authority owns and operates several dwelling units for public housing. Not shown on map.
US Post Office	449 Adams St. H 12-8	U.S. Government	21,671 SF	Bus.	Post Office and Parking Lot
PRIVATE NON	IPROFIT PARCELS	WITH RECREATION	NAL AND C	PEN SPA	CE OR FUTURE POTENTIAL
Milton Legion Post #114	123 Granite Ave. G 51-3	Milton Legion Building Corp.	2.92 AC	А	Social club open to members and quests, large parking area, some outdoor activities, e.g. horseshoes: wetlands part of lot.
St. Agatha's	65 Father Carney Dr.	The Congregation	2.30 AC	Α	Religious Housing

Common	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's	Management			
	Number				
Convent	G 6A-6	of the Oblates of the Virgin Mary			
Captain Robert Bennet Forbes House	203 Adams St., 215 Adams St. F 14-3, 5A, 5B & 11A	Trustees of the Captain Robert Bennet Forbes House Charitable Trust	13.31 AC	Α	Four prominent parcels of land containing two historic dwellings and various outbuildings and is a Museum open to the public
Unquity House	30 Curtis Road E 46-6	Unquity House Limited Partnership, aka MRE	4.08 AC	D1	Elderly housing apartment house with 139 units on the banks of the Neponset River; DCR has a flood control easement over part of the land.
Winter Valley	600 Canton Ave. K 2-1 & 4	Winter Valley Residences, Inc.	20.18 AC 4.30 AC	D1	Elderly housing in apartment clusters, containing (number should be updated) 128 units with extensive open space.
Milton Hospital, Milton Medical Office Buildings" aka, Milton Medical Center	92 and 100 Highland St. J-13 3, 3A, 3B & 3C	Milton Hospital & Convalescent Center & private condominium offices.	21.731 AC	В	Medical Complex with some landscaped open space. Note: control of buildings and subdivision changes are subject to Board of Appeals approval.
"The Assumptionists"	328 Adams St. F 7-6	Augustinians of the Assumption, Inc.	7.251 AC	А	Home, chapel and offices for religious purposes with extensive open space.
No Common Name	55 Parkwood Drive. N 12-9	Religious of Christian Education, Inc.	2.766 AC	А	Home for religious.
Suffolk Resolves House	1370 Canton Avenue L9-8B	Milton Historical Society	41,300 SF	A	Historical building and museum of Revolutionary war era artifacts and memorabilia; open to the public several times per year; headquarters of Milton historical Society; placed on National Register of Historical places.
"Quisset Brook"	Canton Ave., Governor Stoughton Lane K 6-1, 3 & 4	Private Condominiums	32.568 AC	E	Private condominium development containing 54 dwelling units in "attached cluster form": which requires "conservation of significant tracts of open space." At least 70% of development shall be "open land" under terms of special permit and site plan approval from the Planning Board.
"Pine Tree Brook Homes"	Canton Ave. and Blue Hills Parkway D 65-6	Private Condominiums	32.76 AC With 14.02 AC under a conservation restriction	D1	Private condominium development "for elderly or handicapped". Development is governed by site plan approval from the Planning Board, which required fourteen (14) AC to be set aside in conservation easement.
"Brushwood Condominiums"	Brush Hill Road and Smith Road C48-6B & C53-13	Private Condominiums	18.01 AC	А	Private condominium development containing 14 dwelling units. Development is governed by special permit and site plan approval from the Planning Board under Section VI, L of Zoning Bylaw (special permit for condominium conversion on ten or more AC to "preserve open space in the Town").
"Tucker Burr Estates"	Blue Hill Avenue and Milton Street A 13-1	Private Condominiums	22.05 AC	А	Private condominium development containing 20 dwelling units. Development is governed by special permit and site plan approval from the Planning Board under Section VI L of Zoning Bylaw (special permit for condominium conversion to "preserve open space in the Town").

Common	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's	Management			
	Number				
"Fuller Village" and "The Meadows at Fuller Village"	Blue Hill Avenue and Brush Hill Road A 12- 1	The Fuller Village Corporation	31.193 AC?	V	Fuller Village is an elderly housing complex owned and managed by the non-profit Fuller Village Corporation. Residents acquire their units through a life lease arrangement; some units are affordably priced. The complex is surrounded by naturally vegetated areas and walking paths. An indoor pool and athletic complex will be available to Milton residents. The use is governed by the zoning bylaw and special permits granted by the Board of Appeals.
Milton Healthcare and Rehabilitation	Brush Hill Road and Neponset Valley Parkway, currently addressed as 1200 Brush Hill Road A 12- 5	Milton Healthcare (name of owner?)	10.266 AC*	A	The building, a former seminary, is presently a "nursing care and elderly daycare facility" with an allowable capacity of 160 beds. The facility operates under variances granted by the Board of Appeals with certain terms and conditions. *Note: Included in the 10.266 AC are 4.6 AC that have a conservation restriction granted to the Town of Milton. See notes on site no.51 and Board of Appeals case no. 1107 and 1130. see also site no. A 4
Milton Woman's		Milton Woman's	1.017 AC	С	Multi purpose athletic field available to Milton residents.
Club	90 Reedsdale Road D 46-20	Club	1.017 AC	C	Private club prominently located with landscaped frontage.
Hoosic Club	193 Central Avenue E 28-5	Milton Hoosic Club	70,877 SF	В	Prominent clubhouse on landscaped grounds with tennis courts; not available to the public.
Milton Hill House	36 Eliot St. E 3-24	Milton Hill Realty Trust	3.87 AC	С	Private prominently located apartment with landscaped grounds. The building and grounds are subject to terms and conditions of the Milton Board of Appeals.
Milton Knights of Columbus	9 Thacher Street D 1- 16	Milton K. of C.	16,655 SF	С	Private club and single-family house.
St. Agatha's School	438 Adams Street G 47-1	Managed by St. Agatha's Parish	3.846 AC	С	Elementary school, surrounding school grounds are nearly all asphalt.
Fontbonne Academy & Fontbonne Convent	Brook Road, Centre Street Adams St. F 18-1	Congregation of the Sisters of St. Joseph	15.146 AC	А	Prominent landscaped campus grounds. Not available for public use.
Milton Academy	Easterly side of Gun Hill St. at Randolph Ave. I 36-4B	Trustees of Milton Academy	12.654 AC?	A	Site contains four dwelling units for Milton Academy Staff; much of site is woodland in natural condition utilized by neighbors for passive recreation.
Milton Academy	376 Randolph Ave. 390 Randolph Ave I 36-3, 4A	Trustees of Milton Academy	25,000 SF 43,560 SF	A	Two lots with dwellings fronting on Randolph and surrounded by site no. F-3, above.
Milton Academy	300, 334 Centre St.; 218 Brook Drive F- 22-1, 2 & 3	Trustees of Milton Academy	6.0 AC? 15,000 SF? 6,005 AC?	A	Two student dormitory buildings and faculty housing complex with considers open landscaped area and areas in natural condition. Not available to the public.
Milton Academy	South Side of Centre St. and west side of Randolph Ave.; various building addresses J-16-1-7, 14, 15, 28 &	Trustees of Milton Academy	44.687 AC	A	Part of Milton Academy main campus including classroom buildings, gymnasium, faculty housing, etc., also including playing fields, parking areas, tennis courts, open land, wetland, etc. Not generally available to the public.

Common Name	Address/Location Assessor's	Ownership/ Management	Size	Zone	Description/Notes
	Number 29				
Milton Academy	North Side of Centre St. All of Assessors Plan D50. D50-, 1, 2, 3A, 3B	Trustees of Milton Academy	49.737 AC	A	Part of Milton Academy main campus including classroom buildings, gymnasium, dormitories, faculty houses, also including parking areas, tennis courts, playing fields, regulation 1/4 mile track, pond area, marsh area, wetlands, hockey rink and chapel. Some areas remain in natural conditions. Buildings are generally not available to the public but 1/4 mile track is utilized by the public yearlong. Other fields are used for informal recreation by the public.
Milton Academy Faculty Housing	Various locations in vicinity of Milton Academy	Trustees of Milton Academy			Usually single-family dwelling units at scattered sites. Other faculty housing located on main campus sites listed above.
St. Mary's of the Hills School and Convent	250, 260 Brook Road E55-3	Roman Catholic Archbishop of Boston	7.21 AC?	С	Elementary school prominently located with extensive grassed play areas used for school recreation and year long informal recreation by neighbors.
Baptist Bible College	Milton portion located at corner of New Bedford St.; buildings located and addressed in Boston on Metropolitan Avenue. C47-1-10	Baptist Bible College	1.377 AC	A	Rear of school campus located in Milton. Not available to the public
Curry College	Blue Hill Ave., Milton St., Brush Hill Rd., Atherton St. and Bradlee Road. Various parcels in A14 and B9	Curry College	116.234 AC?	A	Four-year college with extensive campus lands including landscaped areas, houses, classrooms and dormitories. Recreation facilities include: tennis courts, swimming pool, cross country jogging path and various playing fields. Although certain restrictions apply security and control, the public may certain facilities for both formal and informal recreation. Curry College should be consulted for current poll regarding facilities.
Thacher Montessori School	1425 Blue Hill Avenue	Thacher Montessori School, Inc.	?	?	Private Montessori School, ages 3 through 8 with landscaped grounds and play area
Cunningham Park	Bounded by Edge Hill Road, Fuller's Lane, Webster Road and extending beyond the Milton Boundary into Quincy. Office address is 75 Edge Hill Road. H 39-1-7; H 38-11, 20	Cunningham Foundation of Milton	82.959 AC?.	A/C	Extensive recreational complex (see MMP p. 106). The area provides active and passive recreation areas including outdoor pool and tennis courts, baseball diamond and soccer fields as well as areas in natural condition such as woodlands, wetlands and fields. The area is used throughout the year. The property is managed according to the terms of the will of Mary A. Cunningham. The open space is not permanently protected.
Wollaston Golf Course	& 21 999 Randolph Avenue K5-Pt. 36, 28A, 41 & 30A	Wollaston Golf Club	158.262 AC	A	Private golf course and country club which is open to the public. The Town of Milton retains a flood control easement of that portion of the land that falls beyond contour elevation 62 feet. See Town of Milton plans.

Common	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's Number	Management			
Camp Sayre	Off of northwest side of Unquity Road. L6-28	Boston Council Boy Scouts of America	110.0 AC	А	A camp grounds with several buildings (See MMP p. 107). Most of the area is in a natural woodland state. Not open to the public.
East Congregational Church	Corner of Granite Place and Adams St. G-7-16 & G8-19	East Congregational Church	36,823 SF 11,956 SF	С	Landscaped church and grounds Lot G8-1 contains memorial stone and plantings maintained by Town of Milton.
First Baptist Church	330 Edge Hill Road H12-10	First Baptist Church	16,194 SF	С	Church and landscaped grounds.
Church of Our Savior	469 Adams Street H13-5 & 6	Church of Our Savior	17,392 SF	С	Church and landscaped grounds.
Saint Agatha's	448 Adams Street G44-1, 2, 3	Saint Agatha's Church	45,026 SF	С	Church and landscaped grounds.
Saint Agatha's	432 Adams Street G49-5	Saint Agatha's Church	46,558 SF	С	Rectory and landscaped grounds.
Saint Michael's Church, Rectory & School Compound	112-114 Randolph Ave F14-12, 13, 14, 15	Saint Michael's Church	0.30 AC?	A	Church, Rectory and Sunday School/Nursery School building on landscaped grounds.
St. Elizabeth's Church & Rectory	350 Reedsdale Road J8-1, 12	St. Elizabeth's Church	2,642 AC	С	Church and Rectory on landscaped grounds.
Former St. Elizabeth's Rectory	597 Randolph Avenue J7-11A-11D	St. Elizabeth's Church	1.42 AC	С	Residence on hill opposite St. Elizabeth's church is leased to tenants.
First Congregational Church of Parsonage	495 Canton Avenue D52-2C, 3A, 3B	First Congregational Church	2.72 AC	В	Church and Parsonage on landscaped grounds. A portion of the grounds is in natural condition and another is gardened.
First Parish in Milton	535 Canton Avenue D52-5	First Parish in Milton	2.44AC	В	Church and compound on landscaped grounds.
St. Mary of the Hills Church and Rectory	29 St. Mary's Road D62-1 & 2	St. Mary's Parish	1.48 AC	С	Church and rectory in neighborhood setting with landscaped grounds.
Congregation B'nai Jacob	100 Blue Hills Parkway E48-9 & 10	Congregation B'nai Jacob	12,247 SF	С	Synagogue with landscaped grounds.
Mattapan Baptist Church	56 Blue Hills Parkway E47-16	Mattapan Baptist Church	11,681 SF	С	Church and landscaped grounds.
Parkway Community	158 Blue Hills Parkway	Parkway Community	1.0 AC	С	Church and landscaped grounds.

Common	Address/Location	Ownership/	Size	Zone	Description/Notes
Name	Assessor's Number	Management			
Methodist Church	D1-14A, 14B, 15A, 15B	Methodist Church			
Temple Shalom, also known as Milton Hebrew Center	180 Blue Hill Avenue C21-27 & 28	Temple Shalom	3.862 AC	С	Prominent Temple and school with landscaped grounds.
St. Pius X Rectory	865 Brush Hill Road B12-8A, 8B, 2B	St. Pius X Church	8.55 AC	Α	Rectory on large parcel of land
St. Pius X Church	101 Wolcott Road B14-6, 12	St. Pius X Church	6.19 AC	А	Church with landscaped grounds, parking lot and field used by neighborhood youth for informal recreation and athletics.
PRIVATE PAR	CELS IN PROTECTI	ED, NON-PERMAN	IENT STATU	ıs	
"Bartol Old Farm"	Southerly side of Canton Ave. extending to Blue Hills Reservation L10-4, 5, 6	Various ownerships. See Assessors	86.960 AC?	А	See Assessors Records for those portions that are in agricultural use and types of uses. Map indicates general locus only.
No common name	Southerly side of Canton Ave. extending to Blue Hills Reservation. Various parcels in M1	Kenneth R. and Lorayne C. Carberry	?	A	See Assessors Records for those portions that are in agricultural use and types of uses. Map indicates general locus only. Note: Possible change in Carberry "farmland" areas in 1986. Some of this land was purchased by the Commonwealth and rest may have been developed – check this
No common name	Westerly side of Brush Hill Road near Blue Hill Avenue A10-4, 5B, 6B, 6C	Mary M. Binney (see also Assessors Records)	?	A	See Assessors Records for those portions that are in agricultural use and types of uses. Map indicates general locus only.
Fletcher Steele Gardens	287 Highland St.	Corcoran Construction Co. (to be deeded to a private conservation trust)	?	А	This historic garden area facing Highland Street at the entrance to a residential development (formerly "Our Lady's Hall") has been set aside in a permanent conservation easement, subject to the condition that it be maintained by the Milton Garden Club or other entity designated by the Town of Milton.
AQUIFERS AN	D WATERSHEDS				
National Wetlands Inventory United States Dept. of the Interior Index of Wetlands (by vegetation)					Separate map including Town of Milton and showing wetlands defined by vegetation. See Appendix A.
U.S. Dept. of					Separate map showing Town of Milton Wetlands defined by soil type. See Appendix B.

Common Name	Address/Location	Ownership/	Size	Zone	Description/Notes
	Assessor's Number	Management			
Agriculture, Soil Conservation Service, Wetlands Identification Map (by soil type)					
U.S. Dept. of Housing and Urban Development Federal Insurance Administration National Flood Insurance program Flood Insurance Rate Map, Town of Milton, Mass., April 3, 1978.					Separate map showing flood zone designations. See Appendix C.
"Harland Street Flood Control Area"	On the easterly and westerly sides of Harland St. extending over Town lands, DCR land, Wollaston Golf Course lands and other private lands.	Town of Milton Flood control easements and ownerships			The water retention area is formed by the "Harland Street Dam" which control water at a contour elevation of 62 feet See Town of Milton plans for locations easements. See also site A-41. See all maps in Appendix D.
Fowl Meadow and Fowl Meadow aquifer	See Site no. D-2. On westerly side of Brush Hill Road bordered by the Neponset River and extending into the Town of Canton; A- 11.	Division of Conservation and Recreation			The aquifer contains 13 billion gallons of fresh water. See MMP p. 109-A.
Town of Milton Drainage Pattern and Watershed					See MMP; ages E1-E3 in Appendix E for general description of the Neponset River watershed and the Pine Tree Brook watershed and tributary brooks and streams the Town.
Neponset River					See DCR and Town plans for various flood control easements along the Neponset River. For descriptions of lands (marshes for example) abutting the river see various sites in this index. The river itself is shown on the Town Map. Recreation (fresh water fishing and boating) is increasing on the river the water becomes cleaner and fish are stocked. In the tidal estuary portion (from Milton "Lower Mills" to its Milton terminus) the

Common Name	Address/Location Assessor's Number	Ownership/ Management	Size	Zone	Description/Notes
					river is used for mooring by two yacht clubs. It is used for pleasure boating, year round fishing, passive and aesthetic recreation for residents from the Boston area.
Milton Cemetery Ponds	Milton Cemetery Section I	Town of Milton, Milton Cemetery			See site no. A-13. Two ponds within Milton Cemetery. Popular areas passive recreation by neighbors and visitors.
"Gun Hill Pond"	Southerly side of Gun Hill St. at Randolph Avenue	Milton Academy			See site no. A-54
Turner's Pond	Bordered by Central Ave, Brook Road and Canton Ave	Town of Milton, Park Department			See site no. A-21. Note: Ice skating is not permitted.
Popes Pond	Westerly side of Blue Hills Parkway near Canton Ave	Town of Milton, Department of Public Works			See site no. A-35.
Hemenway Pond	Pond and land bordered by Canton Ave., Blue Hill Ave. and Dollar Lane. A 4- 1	Care and control was transferred by the DCR to The Town of Milton. DCR retains the fee.	12.7 AC?	A	See HCC item no. 13 and 1966 Town Meeting Article 50. See also MMP P.103. See also site nos. D7 and K12.
Wollaston Golf Club pond	Off of Randolph Avenue near Heather Drive				See site no. G-6. Private pond on Wollaston Golf Course, no fishing or skating permitted. Part of "Harland Street Flood Control Area". See site no. K-4.
Hillside Pond	Off of Hillside St. near Chickataubut Rd. N15-3	Located within Blue Hills Reservation			Small picturesque pond used for fishing and ice-skating by general public.
Houghtons Pond	Off of Hillside St. and Blue Hill River Road. M10	Located within the Blue Hills Reservation			Part of Blue Hills Reservation. See site no. D-1. Very popular year round recreation area used by the general public. Supervised swimming with bathhouse facilities and snack bar. Picnic facilities for organized outings. Year round fishing activities with annual stocking by State. Very active and varied recreation site. See Division of Conservation and Recreation for further information.
Pine Tree Brook	Rises in the northerly slopes of the Blue Hills and winds in a northerly direction roughly bisecting the Town easterly and westerly and discharging in the Neponset River by the Central Avenue Bridge. Various.	Town of Milton			See also site nos. K-3, K-4, K-6, K-10, K-11, K-14, A-41, A-35, A-30, A-21 and separate Map of site no. A-41 in Appendix D.
Retention Pond	Next to 1425 Blue Hill Avenue	Comm. of Mass	?	?	Cement retention pond constructed by Commonwealth to receive runoff from Blue Hill Avenue and protect ponds on private property from pollutants

Section 6 Community Goals

The 2004 Milton Open Space and Recreation Plan Update have been developed by the Town Planner along with the Open Space Committee consisting of a member each from the Board of Selectmen, Conservation Commission, Planning Board, and Park and Recreation Commission. The plan reflects the concerns and desires of the residents of the Town of Milton and is the product of the concerted effort of many local volunteers. Inputs to the plan update include:

- Public meetings
- Public Survey
- Comments from:
 - Board of Selectmen
 - Planning Board
 - Conservation Commission
 - Engineering Department
 - Parks and Recreation
 - Council on Aging
 - School Department
 - Milton Business Council
 - MAPC

Meetings for the purpose of discussion of Open Space/Natural Resources were posted at Town Hall and advertised in the local papers. This generated added interest by residents, some of which attended the meetings and had additional input. A questionnaire was developed and posted on our Town Web Site for citizens to download and send back to the Town Planner. In addition, forms were available in the main lobby of Town hall and the main branch of the Milton Public Library.

The Open Space Committee collaborated on the Community Goals and Objectives and the five-year Action Plan after review of collected data, input from community meetings and recommendations of needs and priorities from Town departments.

Our overall community goal is to implement the 2004 Open Space & Recreation Plan and to assure that our preservation of open space and recreational land is consistent with the Town's needs, protects our environmental resources and preserves our historic New England character.

The Town of Milton wants to promote maintenance and use standards for Town-owned land, set usage goals for parcels with clear open space or recreational value, and strategically target parcels, portions of parcels, development rights and easements for possible acquisition. The Town has made great strides, and will continue to do so, in improving recreational facilities for the young, the handicapped and the elderly.

The Town needs to look carefully at its inventory and develop strategies to protect and secure its properties from environmental and other threats. Because there is very little undeveloped land left in Milton we will continue to maximize the resources we have for the benefit of our residents. To the extent possible, needs for active recreational space should be met with existing open space, or if land is to be added, both maintenance and acquisition should be met in as revenue neutral a manner as possible.

In addition to these efforts, Milton should focus on advance planning for those few undeveloped parcels remaining and should devote its creative energies to ways to ensure that if large parcels owned by nonprofits should become available for development, we will have in place zoning or other tools that will ensure that the Town will have a significant role in determining the use of the property, for the benefit of the town. While a beginning has been made in the various planning forums to suggest possible outcomes if such land were to become available, considerable time and effort will have to be expended, with plenty of public input, to reach consensus on such measures.

Adding strategically located commercial zones, with strict low impact development criteria, could aid Milton meet its need for smart yet sensitive growth. Milton has taken a first step in this direction by hiring a Town Planner who will help the town "monitor development to ensure that growth is channeled to appropriate locations." Additional guidance from organizations versed in low impact development, such as the Low Impact Development Institute in Maryland may also be helpful.

The preservation of Department of Conservation and Recreation (DCR, formerly the MDC) reservations are of great importance to the Town as they provide recreational facilities and open space and comprise approximately 22% of the Town's land area.

Section 7 – Analysis of Need

This purpose of this section is to establish what actions are needed to achieve the broad community goals stated in the previous chapter. This three part section will discuss the resources needed to protect our open spaces, the needs of the community as stated in the results of the open space survey, town officials and departments and public hearings and finally the needs required to manage current natural resources as well as those necessary to meet the goals and objectives sought by the community.

While subsequent chapters will provide recommendations on how to meet our shortcomings, this section highlights the gap between where we are today as a community and where we would like to be.

A. Summary of Resource Protection Needs

Although Milton has significant land dedicated to open space there continues to be opportunities for obtains additional land that would complement current holdings and enhance environmental protection. However, funding to allow the Town to take advantage of land acquisition opportunities is often inadequate, for a myriad of reasons.

Milton's old New England landscape character, historic sites and rare old growth are threatened by development in general and by styles of development not in keeping with its character. A comprehensive review of the zoning bylaw would identify possible new protections such as low impact development criteria and best practices that have emerged in recent years.

Because revenues are tight and it is difficult to allocate them to land protection there exists a need to cultivate private and commercial support for these initiatives.

Although the Neponset River is at its cleanest in 300 years, portions of the river still do not support diverse fisheries nor are they suitable for primary and secondary contact recreation. In Milton, sections of Pine Tree Brook and Unquity Brook periodically exhibit unacceptable levels of contamination. These waterways, and the Neponset itself, receive contaminated water from numerous storm drains (many added in channelization work 42 years ago).

Part of the solution to the water quality problems is to identify and repair leaking septic systems and broken sewer pipes. Public education and bylaws regulating pet waste, the use of fertilizers and nuisance wildlife control are efforts recently undertaken to alleviate this problem. These efforts are an ongoing Public Works initiative in Milton. Furthermore, new drainage systems for large projects such as Quarry Hills project and the School reconstruction projects were designed to remove pollutants before water reaches Pine Tree and Unquity Brookes. Another large stormwater quality improvement program is being implemented in Milton at the upper end of Pine Tree Brook, through a state grant.

Neponset River Dams along the block upstream fish migration, have been identified as an issue for debate within the Town. Public discussion of options to restore a route for fish needs to continue. Related to this issue is the accumulation of contaminated sediment behind the existing Neponset River dams which, if not properly managed would seriously threaten water quality.

Invasive plant species in streams and ponds threaten numerous areas of town. Developing a public education program for residents about eradication and restoration of land overtaken by invasive species should be initiated. The Town could then prepare a report ranking parcels in preparation for grant applications for funding for prevention as well as eradication.

There is no comprehensive inventory of Milton plants, including rare species, or of animals. Educational materials and a descriptive checklist could be used by resident volunteers to catalog species. This could be developed in conjunction with the Milton Public Schools, particularly the High School biology staff. The results could be published in an annual update. Plants and animals in the Blue Hills are studied at Chickataubut Education Center and these efforts should be coordinated with Milton's efforts.

Identification and enhance (in addition to state and local wetlands laws) protection of vernal pools which may harbor rare and endangered species needs to be considered. The Conservation Commission has initiated such deliberations.

Agricultural land and other large land parcels private ownership is not inventoried; the Town could be missing opportunities to exercise right of first refusal on agricultural land. An Assessor's list of land taxed as agricultural and privately owned parcels greater than five acres needs to be developed and publicized.

Maintenance of walking paths in natural areas and vigorous enforcement of vandalism laws to reduce fires is required.

B. Summary of Community's Needs

Milton has a high population density for a suburban community, as well as higher than average proportion of school-age children and elderly. The density is a result of relatively early growth and the large amount of dedicated open space. Larger estate properties are increasingly subdivided in to smaller residential lots or cluster developments. This combined with the emergence of an active lifestyle is putting increased demands on the community. Both active and passive recreation opportunities are needed, which involve recreation programs and facilities alike.

As new homeowners arrive and new development spreads throughout the town, the need for more neighborhood recreational facilities has grown. In addition, the intense use of the existing facilities has resulted in the almost impossible task of providing safe playing fields and outdoor facilities for an expanding group of participants.

Respondents to our open space survey noted that Milton's playing fields are currently in maximum use, and are being damaged from overuse. Given the substantial increase in the youth recreation population in town, the introduction of new sports, like lacrosse and field hockey and the substantially increased demand for additional playing fields, Milton needs to look into the acquisition and/or lease arrangement (possibly with the Department of Conservation and Recreation which manages the Blue Hill Reservation, much of which is in Milton).

Milton has a disproportionately large elderly population of approximately 25 percent of its population, expected to grow to almost 30 percent by 2020. Housing and recreation needs for the elderly (e.g., walking trails) will only grow in the coming years.

The Milton Park and Recreation Department presently identifies the recreational needs in Milton as follows:

- **1)** Continue with maintenance programs of outdoor sites and facilities along with the development of existing areas to get the most recreational value from them.
- **2)** Acquire additional land so as to provide a greater variety of facilities for the public use (active and passive recreation).
- 3) Develop more passive recreation opportunities in the community (small boat access, trails, bike paths, picnic areas, etc.) Respondents to the Open Space Survey pointed out that the increased interest in passive recreation is indicated, in part, by the growing number of walkers and joggers on the roads in Milton. This has led to the need for an expanded multi-purpose trail/bikeway system. These trails could be built as part of a system to connect either the commercial and residential centers of the town or to connect existing open space areas as part of a greenbelt system.

One challenge to be met is the demand for accessible facilities for those with special needs as deficiencies currently exist. Handicapped access to natural areas such as Turner's Pond will need to be addressed as we move forward. There is an obvious need to investigate low impact, low cost options for adding this type of access.

It is unclear if we meet the standards promulgated by the National Recreation and Park Association (NRPA) for open space and playing fields.

To begin to address these needs the Town must conduct a comprehensive review and revision of our zoning bylaws, in as cutting edge a way as we did in 1922 when Milton was one of the earlier communities in Massachusetts to begin to implement zoning. New revenue is limited by a property tax base that is 97 percent residential, (XX) percent public open space and (XX) percent education/nonprofit. New development is overwhelmingly single family residential. There is a need to grow our commercial tax base, at least modestly, while protecting the Town's character.

Through this plan and other means, we must ensure effective communication between the various Boards and Commissions. There is often a disconnect between what the Park Department wants and needs for recreation space and what the Planning Board is able to wrest from developers.

Section 8 – Goals & Objectives

This section takes what was learned in the previous two chapters," Community Goals" and "Analysis of Needs", and synthesizes that information into specific goals and objectives for the Town to implement in the next five years.

The goals and objectives enumerated below are an amalgam of the goals outstanding from the previous plan and the input of town officials and residents at public hearings, during the public comment period and at the Open Space Planning Group (OSPG) meetings.

Overall, our objectives are 1) to maintain the balance of open space at present; 2) maintain the old New England character of the Town while meeting its needs for active recreational space; and 3) encourage an active and healthy lifestyle for our residents to make maximum use of the Town's natural resources.

Outcomes from the 1994 Open Space Plan Five Year Action Plan

A number of goals from the previous plan were accomplished. These do not necessarily represent the easiest; in fact some of the most complicated have been accomplished.

GOAL: Design and execute end-use facilities for the Milton Landfill

OUTCOME:

The Town of Milton worked diligently to put together a successful reuse plan for the landfill that today is a semi-public golf course with special public access requirements.

GOAL: Purchase land along Neponset River in Milton Village to preserve open space and preserve river frontage; support DCR efforts to purchase vacant undeveloped residential land adjacent to DCR reservation

OUTCOME:

Forbes Woods on the Neponset was purchased by DCR; additional land or, in some cases, development rights for land next to the reservation has been purchased by the DCR.

GOAL: Protect intersections with green space by encouraging private groups to sponsor them

OUTCOME:

In an effort coordinated by the DPW, most of the highly visible islands have been adopted. Over 15 now have year round sponsors.

GOAL: Sponsor volunteer drives for the cleanup of public land, under jurisdiction of the Conservation Commission

OUTCOME:

This effort is done annually but under the Board of Selectmen (DPW) and the Park Commissioners. Even more efforts of this sort would be beneficial.

GOAL: Assess interest in bike path and increase pedestrian paths

OUTCOME:

The Bicycle Advisory Committee is active and has produced a bicycle plan; a grant application is pending. Town has successfully been selected as one of two communities to move forward under the new Footprints Roads Program, to convert roads with excessive widths into bicycle friendly ways.

2004 - 2009 Open Space Action Plan

In addition to the goals and objectives listed below, the Town will continue to educate the public about open space issues and educate itself about the National Recreation and Parks Association standards, as well as other relevant guidelines relating to open space management. We will encourage the formation of volunteer groups and partnerships for specific objectives such as clean-ups, special projects or even land acquisition.

GOAL A: Protect Milton's open spaces, including our ponds, river front, streams and brooks, and woodlands, in a natural state that can be enjoyed by future generations.

Objectives

- A1: Seek federal, state and private funding to acquire additional open space for the town.
- A2: Increase the level of protection of private lands by encouraging owners to place conservation restrictions or increase the protection levels on their land.
- A3: Work with Planning Board, Conservation Commission and Zoning Board of Appeals to develop zoning or land use tools to protect open space, with special attention to landscaping and buffer zones.
- A4: Prioritize areas that enhance existing open spaces and protect fragile environments, to focus on where best to create larger contiguous parcels or connect existing parcels or trails.
- A5: Develop a Management Plan for invasive species, targeting waterways and working with owners including Commonwealth and nonprofits.

GOAL B: Develop an Implementation Plan for the "Community Preservation Act."

Objectives

- B1: Analyze Plan applications for Milton, including maintenance of open space including playing fields, low and moderate income housing, historic preservation and open space acquisition.
- B2: Identify preferred methods of funding.
- B3: Provide decision-makers with strategic options for implementation.

GOAL C: Ensure that playing fields and other recreational facilities support the needs of the population.

Objectives

- C1: Conduct the NRPA Level of Service Analysis.
- C2: Locate new facilities to meet demand or consider converting underutilized space to meet these needs where appropriate.
- GOAL D: Continue to make residents aware of Milton's open space, waterfront, trails, natural resources and recreational opportunities.

Objectives:

- D1: Develop an organizational structure to enable us to achieve these goals by appointing a working group from each of the relevant management components to review progress several times each year, especially in advance of the submission of warrant articles for the annual Town Meeting.
- D2: Map and publicize the location, amenities, and availability of viewsheds and town open spaces.
- D3: Develop signs to mark viewsheds, accessible parks, woods, playing fields, trails, and other open spaces, especially under-utilized sites.
- D4: Ensure that recreation and conservation areas are accessible to all individuals, and provide information for those with special needs; work with owners of private conservation land who wish to allow public access.
- D5: Concentrate on one recreational facility each year where handicapped access can be accomplished at low cost and with minimal future maintenance.
- GOAL E: Maintain and develop safe walking and bicycling routes to decrease vehicle congestion and for good health; improve access to Neponset River.

Objectives

- E1: Create bicycle routes along older, wider streets in existing rights of way Central Avenue, Brook Road and Blue Hills Parkway.
- E2: Enhance and maintain existing paths along natural features such as brooks and ponds.
- E3: Improve access for small boats, specifically those that fit on top of a car, including canoes and kayaks, at Milton Landing; explore feasibility of a low tide walkway along the Neponset River.
- GOAL F: Pursue Projects to improve water quality along Unquity Brook/Gulliver's Creek and Pine Tree Brook

Objectives

■ F1: Complete the Pine Tree Brook Vegetated Drainage Project.

GOAL G: Maintain the "old New England" character of the Town.

Objectives

- G1: Inventory estate properties with open space, woodlands, wetlands and gardens whose appearance is important to preserve and plan for preservation options through zoning, such as "open space zoning" and other means.
- G2: Inventory land presently taxed as farmland and review using Town's option to purchase when development is contemplated; in the alternative, encourage conservation restrictions.
- G3: Work with Historic Commission on identifying and preserving historic area and sites.

GOAL H: Encourage preservation and use of current open space for quality of life and a healthy lifestyle.

Objectives

■ H1: Publicize open space resources and sponsor events to celebrate our natural resources.

GOAL I: Develop an Electronic Inventory of all Conservation Land/Restrictions from Paper Record

Objectives

- I1: Format a conservation database.
- I2: Convert all paper records beginning with current Conservation Commission Decisions.

SECTION 9 – 2004-2009 Open Space Action Plan

The five year action plan establishes priorities and schedules steps to be accomplished. It will be the responsibility of every Town Board, Commission and Department to help advance and accomplish these objectives.

ACTIONS	SCHEDULE
A1: Seek federal, state and private funding to acquire additional open	ongoing
space for the town	
A2: Increase awareness of the availability of conservation restrictions to	2005
protect private land	
A3: Work with Planning Board, Conservation Commission and Zoning	2006
Board of Appeals to develop zoning and other land use tools to protect	
open space	
A4: Prioritize areas that enhance existing open space and protect fragile	ongoing
environmental areas, to focus on where best to create larger contiguous	
parcels or connect existing parcels or trails	
A5: Develop a management plan for invasive species, targeting ponds	2005
and waterways	
B1: Analyze possible applications of a Community Development Plan for	2005
Milton such as maintenance of open space, including playing fields, low	
and moderate income housing, historic preservation and open space	
acquisition	2005
B2: Identify preferred methods of CDP funding	2005
B3: Provide decision-makers with strategic options for implementation	2005
C1: Conduct NRPA Level of Service Analysis	2005
C2: Locate new facilities for meet demand or consider converting	ongoing
underutilized space to meet these needs	2005
D1: Develop a working group from management components to review	2005
progress several times a year1	
D2: Publicize the location, amenities and availability of town viewsheds	ongoing
and open spaces	2000
D3: Develop signs to mark the viewsheds and entrances to accessible	2006
parks, woods, playing fields, trails and other publicly accessible open spaces, especially under-utilized sites	
D4: Ensure that all recreation and conservation areas are accessible to	ongoing
all individuals, and provide information to those with special needs	origoring
D5: Concentrate resources on one recreational facility each year where	ongoing
handicapped access can be accomplished at low cost and with minimal	origoring
future maintenance	
E1: Create bicycle routes along older, wider streets in existing rights of	Fund Central Avenue in 2005
way, e.g. Central Avenue, Brook Road, Blue Hills Parkway	Tana Schilar/Werlac III 2000
E2: Enhance and maintain existing paths along natural features such as	ongoing
brooks and ponds	origoning
E3: Improve small boat access (car-tops, canoes and kayaks) at Milton	2007
Landing; explore low tide walkway along river	200.
F1: Complete Pine Tree Brook Vegetated Drainage Project	2005
G1: Inventory estate properties with open space, wetlands and gardens	2008
whose appearance is important to the Town and plan preservation	
options	
G2: Inventory any remaining land taxed as farmland and inform Town of	Inventory 2005, ongoing
purchase option prior to sale	, , , ,
G3: Work with Historic Commission on preservation of historic sites or	ongoing
districts	
H1: Publicize open space resources and sponsor events to celebrate	ongoing
our natural resources	
I1: Format a date base of conservation land and restrictions	2005
I2: Convert all paper records beginning with current Conservation	2009
Commission decisions	2009
COTTITIOSION GEOISIONS	

Bibliography:

Books

Jorgensen, Neil. A Sierra Club Naturalist's Guide: Southern New England. San Francisco. Sierra Club Books, 1978.

Kenney, Leo, P. Burne, Matthew, R. *A Field Guide to the Animals of Vernal Pools*. Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries and Wildlife, Vernal Pool Association, 2001.

Odum, Eugene, P. *Ecology: A Bridge Between Science and Society*. Sunderland, Massachusetts. Sinauer Associates, Inc. 1997.

Watts, May, Theilgaard. Reading the Landscape of America. New York. Nature Study Guild Publishers, 1985.

Westover, Peter. Managing Conservation Land: The Stewardship of Conservation Areas, Wildlife Sanctuaries, and Open Space in Massachusetts. Belmont, MA. The Massachusetts Society of Municipal Conservation Professionals, 1994.

Papers

Golet, Francis, C. Calhoun, Aram, J. K. DeRagon, William, R. Lowry, Dennis, J. Gold, Arthur, J. "Ecology of Red Maple Swamps in the Glaciated Northeast: A Community Profile. Washington, D.C. U.S. Department of the Interior, Fish and Wildlife Service, 1993.

Palmer, Thomas. "Flora of the Neponset Estuary: A Botanical Survey." The Milton Garden Club. Milton, Massachusetts. January 1997.

Palmer, Thomas. "The Neponset's Urban Forests: A Survey." The Boston Natural Areas Fund, under a grant from the Massachusetts Department of Environmental Management. July, 1998.

Swain, Patricia, C. Kearsley, Jennifer, B. "Classification of Natural Communities of Massachusetts". Natural Heritage & Endangered Species Program, Massachusetts Division of Wildlife and Fisheries, September, 2001.

Newsletters and Pamplets

Biodiversity of Massachusetts. Natural Heritage & Endangered Species Program. September 1993.

Boston Harbor 1999 Water Quality Assessment Report. Commonwealth of Massachusetts Executive Office of Environmental Affairs, Massachusetts Department of Environmental Protection, Bureau of Resource Protection, Division of Watershed Management. October 2002

Conceptual Plan: Neponset Riverwalk Quincy and East Milton, MA. Friends of the Neponset River Estuary, Neponset River Watershed Association.

Ecosystem Types in Massachusetts. Natural Heritage & Endangered Species Program.

Environmental Protection Agency National Pollutant Discharge Elimination System (NPDES) Phase II Small MS4 General Permit Annual Report. Town of Milton. 2004

Freshwater Tidal Marches. Natural Heritage & Endangered Species Program.

Massachusetts Watershed Initiative Annual Report 2000. Commonwealth of Massachusetts Executive Office of Environmental Affairs.

Neponset River Watershed Assessment, 2004. Neponset River Watershed Association.

Neponset River Watershed Wetlands Restoration Plan (Draft). December 1998. Wetlands Restoration & Banking Program, Massachusetts Executive Office of Environmental Affairs.

News from the Neponset. A Publication of the Neponset River Watershed Association. July/August 2004.

Oak Hickory Woods. Natural Heritage & Endangered Species Program.

Priority Natural Community Types for Protection in Massachusetts. Natural Heritage & Endangered Species Program.

The State of Our Environment. Commonwealth of Massachusetts Executive Office of Environmental Affairs. April, 2000.

Vernal Pools. Natural Heritage & Endangered Species Program.

A Vision for a Restored Neponset River. Neponset River Watershed Association. Pamphlet produced in part by grant from Riverways Program of the Massachusetts Division of Fish and Game.

Wetlands of Massachusetts: Salt Marshes. Natural Heritage & Endangered Species Program.

Scholarly Journals

Egler, Frank, E. "Roadside Vegetation: Mismanaged Resource." New England Wild Flower Notes. Spring 1979.

Farnsworth, Elizabeth, Phd. "Taking the Long View on Hemlock Decline." *New England Wild Flower: Conservation Notes of the New England Wild Flower Society* Vol.8 (No. 2, 2004): 26.

Foster, David, R. "Linking the deep and recent past to the modern New England landscape." *Rhodora: Journal of the New England Botanical Club* Vol. 102, No. 911 (Summer 2000): 278-288.

Mehrhoff, Leslie, J. "Immigration and expansion of the New England Flora." *Rhodora: Journal of the New England Botanical Club* Vol. 102, No. 911 (Summer 2000) 280-298.

Peterson, Christina, M. Kittredge, David B. "Threats to Biodiversity in Massachusetts." *Current Issues in Forestry*. University of Massachusetts Cooperative Extension System, Department of Forestry and Wildlife Management. Vol. III, No. 2. (December, 1991).

Webb, Sarah, L. Dwyer, Marc. Kaunzinger, Christina, K. and Wyckoff, Peter, H. "The myth of the resilient forest: Case study of the invasive Norway maple (*Acer platinoides*)." *Rhodora: Journal of the New England Botanical Club* Vol. 102, No. 911 (Summer 2000): 332-354.

Websites

Biodiversity Online Resource: (URL: http://www.umass.edu/nrec/)

Carter, Virginia, Cowardin, Lewis M. Golet, Francis C. and LaRoe, Edward C. Classification of Wetlands and the Deepwater Habitats of the United States. For the U.S. Department of the Interior Fish and Wildlife Service Office of Biological Services. Washington, D.C. 20240.

(URL:

http://wetlands.fws.gov/Pubs Reports/Class Manual/class titlepg.htm)

Department of Environmental Protection.

(URL: http://www.mass.gov/dep/brp/wm/wmhome.htm)

Invasive Species of Massachusetts: (URL: http://massnrc.org/pests/)

Invasive Specieis (URL: http://www.invasivespecies.gov/)

Low Impact Development Center:

(URL: http://www.lowimpactdevelopment.org/index.htm)

Massachusetts Department of Conservation and Recreation: Division of State

Parks and Recreation: (URL: http://www.mass.gov/dem/)

Massachusetts Department of Environmental Protection Watersheds: (URL: http://www.mass.gov/dep/brp/wm/wmhome.htm)

Massachusetts Native Plant Committee: (URL:

http://www.massnativeplants.org)

Massachusetts Riverways Program. (URL:

http://www.state.ma.us/dfwele/River/NeponsetFish/Neponset_toc.htm)

Natural Heritage and Endangered Species Program. Massachusetts Division of Fisheries and Wildlife.

(URL: http://www.mass.gov/dfwele/dfw/nhesp/nhesp.htm)

Neponset River Watershed Association. (URL: http://www.neponset.org)

Milton Parks & Recreation Department

Park Locations & Facilities

Andrews Park [9 Acres]

Belcher Circle (behind East Milton Square)

- ■Playground Equipment— handicap accessible
- ■Tennis Courts (3)
- ■Basketball Court
- ■Little League Baseball Diamonds (2)
- Soccer Fields
- Softball Field
- Benches and Picnic Table

5 Year Improvement Goal

Reconstruct Tennis Courts
Reconstruct/Relocate Softball Diamond
Add Additional Playground Pieces
Reconstruct both Baseball Infields
Repave Parking Lot

<u>Cunningham Park</u> (owned and operated by a private foundation)

Edgehill Road (across from Cunningham and Collicot Schools)

- ■Playground Equipment
- ■Tennis Courts
- ■Baseball Diamonds (Little League and Regulation size)
- Multi-purpose fields
- ■Town pool for residents
- Benches and Picnic Table

Kelly Field [11 Acres]

Brook Road (beside Pierce Middle School)

- ■Playground equipment handicap accessible
- ■Tennis Courts (7)
- ■Regulation Baseball Diamond (1)
- Softball Field (1)
- Soccer Field (1)
- Benches and Picnic Table

5 Year Improvement Goal

Replace Perimeter Fencing

Improve Entrance/Exit Area to Main Parking Lot

Crane Park (Memorial Site) [2 Acres]

Belcher Circle

- ■Passive Recreation
- Benches

5 Year Improvement Goal

Plant New Trees

Mary C. Lane Playground [4 Acres]

Randolph Ave (near Brook Road)

- ■Playground equipment— handicap accessible
- ■Little League Baseball Diamond
- Basketball Court (half court)
- Benches and Picnic Table

5 Year Improvement Goal

Replace Perimeter Fencing Reconstruct Infield Upgrade Playground Equipment Reconstruct Parking Area

Milton High School Athletic Fields [15 Acres]

Gile Road (entrance off Blue Hills Parkway)

- ■Brooks Field Lit Football, Multi-Purpose Field (artificial surface) and track
- ■Three Little League Baseball Diamonds (two are Lit)
- Softball Field (Lit)
- Soccer/Multi-Purpose Lit Field
- ■Multi-Purpose Practice Field
- Outdoor Basketball Court (Lit)

5 Year Improvement Goal

Add Addition Bleachers and Benches Trees Planted Around Perimeter

Shields Park [5 Acres]

Eliot Street

- ■Playground equipment— handicap accessible
- ■Little League Baseball Diamond

- ■Small Soccer Field
- Benches and Picnic Table

5 Year Improvement Goal

Upgrade Playground Equipment Reconstruct Parking Area

Town Landing [2 Acres]

- ■Small Public Park for passive recreation
- ■Public Boat launch for small craft
- Benches and Picnic Table

Turners Pond (Memorial Site) [26 Acres]

Central Ave

- Fishing (permit only)
- ■Walking Path
- Benches and Picnic Table

5 Year Improvement Goal

Add Handicap Walkway
Install Benches At Main Entrance