

**Marblehead
Open Space &
Recreation Plan**

1999

Contents

Contents..... 2
Section 1. Plan Summary..... 3
Section 2. Introduction..... 4
Section 3. Community Setting..... 6
Section 4. Environmental Inventory and Analysis..... 11
Section 5. Inventory of Lands 31
Section 6. Community Goals..... 55
Section 7. Analysis of Needs..... 56
Section 8. Goals and Objectives..... 66
Section 9. Five-year Action Plan..... 68
Section 10. Public Comments..... 76
Section 11. References..... 80
Appendices..... 81
Most Used Open Spaces..... 82
Things To Do..... 85

Section 1. Plan Summary

The Open Space and Recreation Plan ("The Plan") represents Marblehead's strategy to enhance and expand the existing open and recreational space and programs within the town. The Plan identifies additional land that the town could acquire for open space and recreational purposes. Recognizing that Marblehead's centuries of development have left little open land subject to traditional open space planning, The Plan looks for ways to increase the recreational and conservation value of existing town lands, and for other means of protecting the natural resources of the community.

In addition to articulating the town's goals, objectives and action plan, the Open Space and Recreation Plan Committee ("The Committee") hopes that The Plan will be used by residents and visitors to explore the existing open spaces and programs within the Town of Marblehead. The Plan contains maps; descriptions of properties, facilities, flora and fauna and programs; and provides information on parking and restroom facilities.

Section 2. Introduction

A. Statement of Purpose

The Plan is a comprehensive update of the town's planning priorities. Marblehead's last Open Space and Recreation Plan was written in 1988 preceded by plans from 1982 and 1978. The Plan was written to allow Marblehead to participate in certain state and federal funding programs. Additionally, This Plan was written to serve as a source of information on the town's properties, facilities and programs and to serve as a guide to parks and conservation lands.

Several factors contributed to the town's decision to update *The Open Space and Recreation Plan*. Over the past decade the Conservation Commission and Planning Board have spent most of their time as permit granting authorities. As development pressures continue and jurisdictions expand, the boards and commissions have less time to spend on long-range planning. An additional objective was to review the challenges facing existing open space, and to draw-up town wide goals and priorities for open space and recreational needs.

B. Planning Process and Public Participation

The Committee was formed in January 1998 and is made up of three members of the Conservation Commission, two members of the Recreation, Park, and Forestry Commission, one member of the Planning Board, an at-large member, two town employees, and several interested citizens who became working members of the team.

From the Conservation Commission:

- Richard Wilk
- Wendy Pabich
- Walter Haug

From the Recreation, Park, and Forestry Commission

- Denny Curtin
- Phil Norcross

From the Planning Board

- Nick Fader

At-large

- Beth Houghton

Interested citizens

- Jill Chamberlain
- Rick Patoski
- Mary Franklin
- Jay Johnson

Town of Marblehead full- time employees:

- Tom Hamond - Superintendent; Recreation, Parks, and Forestry Department
- Rebecca Curran - Town Planner

The Committee met regularly from January 1998 through April 1999. The Committee divided up the task by assigning specific sections to individual members, or teams of members, to complete. Recognizing that public input was essential in determining the town's needs, The Committee used several methods to solicit public input.

- The Committee identified all of the known and organized users of the town's parks, playgrounds and open spaces. This list included 21 neighborhood organizations, various town departments, youth and adult sports leagues, and many others. In total 47 groups were contacted by committee members (see Appendix A). Information was then collected, compiled and organized.
- The Committee also developed a general survey (see Appendix A). This survey was placed in many locations throughout Marblehead and students from the High School's Jefferson Forum distributed surveys at churches and among high school teachers, and at various other locations. This survey was also distributed at the annual town meeting in May.

The information contained in these surveys was collected and analyzed. The Committee also held public hearings, a more traditional method to collect public comment. One hearing was held at the beginning of the process and another was held after the draft plan was publicized. Analysis of the survey information can be found in Section 7 of this document

Local newspapers, the Marblehead Reporter and the Salem Evening News, covered the two public forums. They also reported on work of the committee as well as the contents of the Plan during the public comment period. Many of these articles are reproduced in the Appendix.

Section 3. Community Setting

A. Regional Context

The town of Marblehead is a coastal community located on a peninsula 17 miles north/northeast of Boston in Essex County. It is a densely populated town with a population of 19,971 (1997 Census) and a land area of 4.33 square miles. The town is bordered by the Town of Swampscott to the south, the City of Salem to the southwest, and the Atlantic Ocean to the west, north and east.

Marblehead boasts one of the most active harbors in the region with over 2,500 boats moored within the town's waters in the summer months. The town has a large tourist population and is especially busy in the summer with its many historically significant sites. The town's commercial districts have many shops, restaurants, and other businesses geared toward the tourist population. Marblehead has many recreational properties, which attract boaters, swimmers, sunbathers, walkers, divers, and other visitors from the region. Vinnin Square is a fast growing major shopping center located on the town's southern boundary and bordering the communities of Salem and Swampscott. This shopping area attracts a large number of people from the surrounding area.

Marblehead is a member of the North Shore Task Force. The North Shore Task Force is a group of communities located north of Boston in the vicinity of Salem Sound. These communities meet regularly to discuss issues of common concern and interest such as transportation, conservation, zoning and watershed.

B. History

From the town's founding in 1629 until the mid-1800's, fishing was Marblehead's dominant commercial enterprise. By 1660, Marblehead was considered to be "the greatest town for fishing in New England." From the 1720's until the mid-1700's overseas trade brought prosperity. By 1760 Marblehead was the sixth largest town in the colonies, with a population of 5,000, and 60 merchants engaged in foreign trade. The Revolutionary War caused severe economic hardship for every family. Ten companies of Marblehead fishermen and mariners served with Col. John Glover's mariner regiment, while the town's merchant fleet and hundreds of seamen became the nucleus of the continental navy. Fishing resumed as the town began to recover from that war and then the War of 1812. Some Marbleheaders joined crews of merchant ships sailing into the Pacific or, later, helped the fast new clippers set records around Cape Horn. Although Salem dominated trade in the Pacific, a number of Marblehead captains attained wealth in the 1820's & 1830's from the Asian trade.

Cottage shoe production grew into a major industry through the 1880's. In the colonial period, prior to the Revolution, shoemaking had been one of several alternate and winter occupations for fishermen, mariners, and aging seamen in New England and seaport towns. During and after the civil war, industrial activity increased in Marblehead, with shoemaking overtaking but not eclipsing the makers of rope walks, sand suppliers, and shipbuilders. Neighborhoods expanded beyond the industrial areas as house construction escalated. The railroad came in 1839 but ceased operating by the early

1960's, leaving behind a 4 mile rail road bed. Small factories of three or more stories were built, each with several dozen workers.

Shoemaking, primarily choice soft-leather products, grew to become the town's leading industry in the last half of the 1800's, especially with the decline and eventual demise of the fishing industry after 1846. That year, a September gale on the Grand Banks decimated Marblehead's fleet beyond the point of rebuilding. Marblehead factories never reached the scale of the Lynn, Haverhill, or Reading, but Marblehead's shoe industry was productive until two fires, in 1877 and 1888, destroyed much of the business district.

In the late 1800's Marblehead's appeal as a seaside resort began to attract summer visitors and yachting enthusiasts. Seasonal cottages sprang up on West Shore farm lands, and spacious summer homes were built around the outlying areas of town, such as Peaches Point and Marblehead Neck. Restaurants and hotel resorts were built around the harbor both in town and on the Neck, to serve the wealthy summer vacationers and residents. In the last half of the 1800's, yachting and racing began to flourish, and Marblehead captured the title "yachting capital of the world." Its harbor soon earned a reputation as one of the country's leading centers for sailing and yachting, continuing throughout the 20th century.

C. Population Characteristics

Population

Marblehead's total population has remained steady since the 1970 U.S. Census, fluctuating closely around 20,000. The population in the 1997 census was 19,971 and it is anticipated that it will remain essentially stable into the foreseeable future. This is due to the current density and lack of buildable land. The buildout of the town is now greater than 95%. The highest density of Marblehead is in the downtown area which is centered in close proximity to its harbor. In this area the high density is due to zoning where lot sizes are 3,000 sq. ft. or less and to the town's history as a fishing and seaport village.

Age Distribution

There has been only minor changes in the age distribution over the last twenty years. The greatest increase in percentage occurred in the 0-5 age group, and a slightly smaller increase appears in the percentage of 65+ group.

Age	1970	1980	1990	2000	2010	2020	2025
under 5	1554	825	1198	1185	968	882	1074
5-14	n/a	2701	2142	2583	2454	2017	2066
15-44	n/a	9037	8835	7361	6953	7240	7794
45-65	n/a	4791	4806	6410	6616	5190	5162
65 & over	2598	2777	2990	4033	4307	6385	5824

Source: U.S. Census

Racial Composition

According to the 1990 U.S. Census, the racial composition of the population is overwhelmingly white; however the numbers of Asian/Pacific and Hispanic residents have grown in recent decades.

Race & Ethnicity

White	19,534	Black	80
Native American	10	Asian/Pacific	172
Hispanic	160	Other	15

Source: U.S. Census

Household

According to the 1990 U.S. Census there were 8,225 households. The number of households has steadily increased in proportion to population since 1970, thus implying a decline in the average size of households, which in 1990 was 2.4 persons. The percentage of non-family households rose sharply in the 1970's but has remained roughly level since 1980.

Income distribution

The 1990 U.S. Census shows the income distribution leans to the high end, with a median household income of \$53,333.00 in 1990.

Unemployment

The June 1998 unemployment rate was 2.0%. Unemployment reached a recent high of 6.1% in 1991.

Labor Force

According to the 1990 U.S. Census, the industries employing the largest numbers of Marblehead residents are retail trade (13.2%), professional services (12.4%) and finance, insurance and real estate (11.8%). The top five places of work for town residents include Marblehead, Boston, Salem, Lynn and Peabody. Approximately 29% work in Marblehead. Of the residents that work, 76% drive to work alone, 5.6% carpool, 6.6% use public transportation and 10% walked to work or work at home. The mean travel time to work is 29 minutes.

Education

Of all persons over 25 years of age, 95% have a high school degree and 54% have a bachelor's degree or higher.

D. Growth & Development Patterns**Patterns and Trends**

Today Marblehead is primarily residential with two small business districts and a small industrial park. Seventy percent of the town's land use is residential. The town is almost completely developed. Very little privately owned large parcels of land remain undeveloped.

Pre-revolutionary development in Marblehead centered in the "downtown" area. A remarkable number of these buildings are still standing. The downtown area development is characterized by structures on small lots and narrow winding roads that in many cases

were former cow paths. The majority of the town was developed in a more suburban character with single family homes on larger (quarter acre) lots on wider uniform streets. Marblehead's West Shore consists of small "camps" situated fairly close together, which have been rehabilitated and expanded over the years. Marblehead Neck and an area known as Peaches Point were developed as summer communities with large homes on large lots for wealthy summer residents.

Infrastructure

Since Marblehead is almost completely built-out, its future development will not be affected by utilities.

Water Supply: Marblehead is a member of the Massachusetts Water Resources Authority (MWRA), and buys its water from the MWRA. The town is at the "end of the MWRA line." The water system includes 75 miles of water mains, 7,608 service connections and 785 hydrants. The entire town has access to a year round water supply.

Sewer: The town is part of the South Essex Sewage District (SESD) for sewage treatment. SESD is made up of five neighboring communities; Salem, Beverly, Danvers, Peabody and Marblehead. The primary treatment plant is located in Salem and an adjoining secondary treatment plant is presently being constructed. The secondary plant is expected to be on line and operating by 1999. Marblehead accounts for 6% of wastewater processed by SESD. The entire town is sewered and contains 96 miles of sanitary sewers, 37 miles of storm drains and 7,570 service connections.

Electric: The town has its own electric company, Marblehead Municipal Light, which oversees 4.3 square miles of service area, 88 miles of overhead lines, 20.6 miles of underground conduit, 3,800 poles, 2,019 streetlights and 9,957 watt-hour meters.

Transportation:

- MBTA bus lines 441, 442, 448, and 449 into Boston via Lynn service Marblehead.
- Commuter rail service to North Station, Boston is available on the Rockport line from Salem Station (340 parking spaces in 1998, soon to be increased to 1,200) and Swampscott Station (131 parking spaces). Average travel time from Salem to North station via train is 25-34 minutes and Swampscott Station is 25-27 minutes.
- A pilot program began in 1998 for a seasonal ferry from Salem to Boston and Logan airport. Ample parking is available at the ferry dock.
- The MBTA Blue Line's closest stop is 10 miles away in Revere.

Long-Term Development Patterns

Marblehead has fifteen zoning districts, although the majority of the town is zoned as a single residence district. There are small business districts zoned as such, as well as a small industrial park zoned as "unrestricted." The town has five shoreline zoning districts. These districts have increased sideline requirements, a waterfront setback requirement and a lower maximum height restriction. These regulations were designed to protect the views from and towards the shoreline. The town also has a harborfront

district, designed to maintain, promote, and secure current and future water dependent development, particularly marine services.

The town's Planning Board administers the site plan approval process. The site plan approval process, adopted in 1988, is designed to ensure that larger developments and development along the shoreline are designed in harmony with the prevailing character of the town and that the character of the site being developed is preserved. The process also examines the vehicular and pedestrian movement within the site for convenience and safety and satisfies that emissions from the site such as erosion, surface water runoff, sewage etc. are minimized. The process ensures that adverse effects on abutting lots, the immediate neighborhood and the town are minimized in terms of conflicts between residential, commercial and industrial uses, obstruction of views, increases in use of town services and impact on town infrastructure.

The planning board reviews and issues permits at a very low threshold through the site plan approval process. All nonresidential developments over 700 square feet, residential subdivisions of three or more lots, all new construction and additions over 500 s.f. within any of the shoreline or harborfront districts are required to obtain a site plan approval special permit. In 1996 the town adopted subdivision control. Most communities in Massachusetts operate under this law, Marblehead being one of the last to adopt it. The subdivision control law replaced the board of survey which operated with the Selectmen acting as that board and approving roads. In adopting the subdivision control law, the town felt that the laying out of roads and lots was more a planning function and therefore more appropriately governed by the planning board. In accordance with the law, the board adopted rules and regulations that are designed to afford more flexibility in the laying out of roadways and this was done in order to adequately meet the unique characters particular to the development of specific parcels of land rather than attempting to apply broad standards that are often inappropriate for the smaller developments that Marblehead often considers.

Marblehead sees very few nonresidential developments. In fact, since 1990 to 1994 only four permits were taken for commercial new construction. During the 1990's, there was an average of 23 building permits for new residential construction per year. The largest subdivision that the town has seen in decades was Westledge, a 22 lot subdivision of single family homes in 1996. There is a vacant 2.5 acre parcel of land that is adjacent to the Marblehead Business Center, an existing office park. It is expected that this will be developed as a 12-14 lot residential subdivision or additional office space. The Tedesco Country Club owns the largest tract of privately owned land in the town. This land is zoned residential and is presently used as a golf course. The town is unaware of any plans to discontinue its present use.

Marblehead's long-term development pattern is largely established. The future is likely to continue the pattern of in-fill construction of single family homes, reuse of existing structures and small nonresidential developments because of its proximity to Boston, with its strong economy, and its desirable location for young families.

Section 4. Environmental Inventory and Analysis

A. Geology, Topography and Soils

Geology

Several interesting topographic and geological features add to the uniqueness of Marblehead. First is its location in eastern Massachusetts: the town occupies an entire peninsula totaling 4.33 square miles shaped by Massachusetts Bay, Marblehead Harbor and Salem Sound and includes 14.2 miles of tidal shoreline. Besides the coastline, the other borders are the town of Swampscott on the south and the city of Salem on the west.

Marblehead Harbor is one of the most spectacular sites along the eastern seaboard making it not only a popular tourist destination but also the backdrop for many cultural, educational, recreational and community activities described in other parts of this report. At its greatest depth during low tide, the harbor is 27 feet deep and approximately ½ mile wide and 1¼ miles long. The straight harbor, situated in a northeasterly direction, is located at the coordinates of 7051' W longitude and 4230' N latitude. At the southerly end of the harbor beginning at Riverhead and Devereaux Beaches, a tombolo or causeway forms a natural enclosure and connects Marblehead Neck to the mainland. Within the town's boundary there are two small islands; Crowninshield Island (formerly Brown's Island) which is under the jurisdiction of The Trustees of Reservations; and Gerry Island which is privately owned. Water levels have risen 3.0' feet since 1805 according to measurements made at Boden Rock in Marblehead Harbor: the following soundings are on record: in 1805, 7.0' mean low water; in 1894, 8.5' - 9.0' mean low tide; and in 1970, 10.0' mean low tide.

The landscape character of Marblehead was affected millions of years ago by glacial action, earth movements, volcanic eruptions and mechanical and chemical weathering. These actions transported rocks, exposed outcroppings, created ponds, deposited soils, and carved out the coastline. The principal bedrock visible throughout town is Salem Gabbro-diorite and can be seen easily in front of the High School on Pleasant Street, at the Glover School on Maple Street, and throughout the Sevinor property off Humphrey Street.

Retreating glacial action transported rocks known as "soled stones" and left erratic boulders that are different in composition from the bedrock. Before real estate development in the 1920's, the Clifton area was dotted with these boulders but they can

also be seen today at Waterside Cemetery, in Wyman Woods and at Forest River. Ponds such as Ware and Oliver resulted from glacial action and are known as kettle ponds. Ice blocks melted, causing the surrounding soil to cave in and create a depression that filled in with water from the water table forming the pond.

Earth movements include sudden horizontal or vertical shifting of portions of the crust such as quakes and faulting, which Marblehead experienced in the 16th and 17th century according to Indian folklore. Evidence is seen in the form of slickenside, which are polished rock surfaces with striations that indicate faulted surfaces. There is an example of this effect on the hilly portion of the Sevinor property behind the Marblehead Community Center. Another example of faulting is not visible and lies at the bottom of Salem Harbor that was detected in 1970 by a research vessel with seismic sounding devices. A large, down thrown fault block of crust resulted from downward slippage during a violent shaking or as a consequence of lateral spreading. This fault line is located nearly mid-harbor and is approximately 170' wide and of undetermined length. Evidence of volcanic activity approximately 400 million years ago in the vicinity of what is now Lynn appears in the outcroppings at Chandler Hovey Park and Castle Rock where flow banding and a "welded tuff," rocks made up of volcanic fragments, are seen.

Marblehead's rocky coastline, beaches, and inland terrain continue to evolve through seasonal weather changes, human and animal excavation on the land, and through the effects of erosion and weathering that is inherent with this coastal environment. Waterfront open spaces and parks areas such as Blodgett Park, Seaside Park, Crocker Park, Chandler Hovey Park, and Fort Sewell receive the brunt of ocean storms and tidal action. Wind and wave action in particular provides enormous energy that weathers, erodes and changes unprotected areas such as the four major inter-tidal zones: Rocky Outcrops, Sandy Beaches, Sheltered Coves, and Salt Marshes. More environmental descriptions of these zones follow in Section C: Water Resources.

Topography

The town's highest elevations are in Wyman Woods, a conservation area along Salem Harbor, where the hilly terrain rises to 33 meters or 108 feet above sea level not too far from the Shore Lea Nature Center, and off Beacon Street near Steer Swamp. In general, the undulating topography on the west side of town is at a higher elevation than on the eastside along Marblehead Harbor. This is evidenced by the next highest areas such as at Naugus Head and the intersection of Pinecliff Drive and Crestwood Road off West Shore Drive. Both of these areas are 30 meters or 105' above sea level. Along the east side of town, the highest elevations, approximately 21 meters or 70 feet, include Gilbert Heights, Roundy's Hill, the training field at Abbot Hall, and the cliffs rising between Goldthwait Reservation and Greystone Beach.

Soils

The most recent soil survey available through the Town Engineer's Office is dated May 1984 and reveals two general soil types in Marblehead, both formed in glacial till: Chatfield-Hollis-Rock Outcrop association and Urban land-Udorthents association. These general soil types match those found in the neighboring communities of Lynn, Swampscott, and Salem.

The Chatfield-Hollis-Rock outcrop association (coded CrC, CrD, HuC on the soil survey map) consists of loam and is moderately deep or shallow, gently sloping to steep grade and can be well drained or somewhat excessively drained. This soil forms low irregular hills, ridges, and plains and often contains common bedrock exposures and depressions of very poorly drained organic soils. In Marblehead, this soil type exists in woodlands but also in residential areas as well as swamps and marshes.

Marblehead's soil types are more suitable for woodlands since the main limitations for residential development are due to rocky outcroppings, exposed bedrock and slope which pose problems for new construction, with or without basements. There are limitations as well for recreational development for camp grounds, picnic areas, and playgrounds due to the small loose stones or large rocks and boulders, exposed bedrock, and slopes. These limitations are less relevant for paths and trails.

As far as wildlife habitat is concerned, this soil type ranks fair to poor to very poor in supporting habitat elements such as grain or seed crops or legumes and grasses or wetlands. The soil type ranks fair to good in supporting wild herbaceous plants. This soil type ranks fair to very poor as a potential habitat for open land wildlife, woodland wildlife or wetland wildlife.

The other predominant type of soil is called Urban land-Udorthents association (coded Ur or UD on the soil survey map) and describes areas where soils have been altered or obscured by urban works or structures; or where soil material has been excavated or deposited. Urban land consists of nearly level to moderately steep areas where buildings, industrial areas, paved areas, and railroad yards cover 90% of the surface area. These areas are used primarily for commercial, industrial or residential purposes. Udorthents consists of areas from which soil has been removed and areas on which soil has been deposited. These areas can support vegetation and are used primarily as athletic fields, playgrounds, cemeteries or lawns as well as road building. Udorthents soils are water permeable with ranges from slow to very rapid and consist of gravel, cobblestones, stones and boulders.

The *Marblehead Schools Open Lands Report* provides soil analyses of four school properties. At the Sevinor property both soil types are found: the lower lying playing fields consist of Urban Land-Udorthents characterized by level, filled, excavated and altered land. Chatfield-Hollis-Rock outcrop typifies the surrounding hilly areas characterized by irregular hills and ridges between 15% and 35% slope, and plains containing common bedrock exposures and depressions of very poorly drained organic soils.

At the Middle School, much of the soil has been altered where the school, pavement and playing fields are located. In addition to this soil type classified as Urban Land-Udorthents, there consists Freetown Muck (coded Fm on the soil survey) described as wet soil poorly suited for building, farming, or recreation but well suited for wetland habitat that is studied as part of the school curriculum. Lastly, this site consists of Hollis-Urban-land Rock and (coded HuC on the soil survey) east of the hockey and playing fields. Sandy loam and exposed rock characterize this area. Its uses are limited due to the bedrock depth of 18" and by droughtiness.

The Beacon Street and Lincoln Ave. sites have combinations of wet as well as rocky and shallow to bedrock soils. These soils are classified as Freetown Muck, Hollis-Urban Land-rock outcrop and Urban Land and therefore have similar opportunities and limitations as at the Middle School.

One other open space site, the Lead Mills property, which is currently privately owned, contains contaminated soils resulting from its former use at the turn of this century as a manufacturing plant that specialized in high quality white lead. This site abuts the Forest River Conservation Area, the Marblehead Right of Way (The Path), Wyman Woods and Salem Harbor. Elevated lead levels in soil have been found in this site. However, it is not likely that adverse health effects have resulted from current use of the bike paths at the site. The real extent has not been completely defined. This site is described in Section 4-2 "Hazardous Waste" since it is a valuable piece of property with many assets and liabilities.

B. Landscape Character

Marblehead has a variety of landscapes including rocky shores, sandy and cobble beaches, salt marshes, ponds, wetlands, upland forests, and meadows.

Rocky shores, so typical of New England, predominant where the land meets the sea. Much of this landform is in private hands but public access is available throughout the town. The best places available to the public include Castle Rock and Chandler Hovey Park on the Neck. On the mainland, Fort Sewall, Red Steps, Seaside Park, Crocker Park and Crowninshield Island are popular access points.

Sandy and cobble beaches form in the bays between the rock headlands throughout town. The two longest beaches are Devereaux and Preston Beach, which stretches into Swampscott. Numerous pocket beaches are scattered through the town. Those with public access include Fort Beach, Gerry Playground, and Danger Beach. The best example of a cobble beach is at the end of Devereaux Beach in front of Goldthwait Reservation. Here, the characteristic terraces of cobble beaches are clearly evident.

Tombolos are formed where offshore islands divide the current so it meets again on the landward side and drops sand and gravel. Examples are connection between The Neck and the mainland and the one between Gerry Island and Gas House Beach.

Salt marshes are found in two areas of town. The largest is in the Forest River Conservation area. A smaller one is located at the Goldthwait Reservation. Both are ditched and in danger from development. In the case of Goldthwait, storm drains entering into the upland side of the marsh provide enough fresh water to foster the growth of large stands of phragmites.

Ponds are sprinkled across the glacial landscape. Those with public access include Redd's Pond, Black Joe's Pond, Ware Pond, Wye Pond, Hawthorn Pond, and two unnamed ponds in the Audubon Sanctuary on the Neck. There are also two unnamed ponds in the Forest River Conservation Area. One of these small ponds was dug during the excavation of gravel in the late 1940s or early 1950s. Another small pond of unknown origin has been certified as Marblehead's only vernal pool after fairy shrimp were discovered there in 1997.

Wetlands predominate in Steer Swamp and Wyman Woods. They also lie on the borders of both Hawthorn Pond and Ware Pond. As Wye Pond fills in, it is becoming more of a wetland than a pond.

Upland forests are located in Wyman Woods and Steer Swamp. Both areas are successional forests as old pasture land returns to a more natural state.

Meadows are diminishing rapidly as a result of development. The last remaining large meadow is located on the Sirosis Farm (also known as the Sevinor Site). Since this is the most likely site for any new future High School, Marblehead is in danger of losing its last meadow.

C. Water Resources

As a seaside community, Marblehead's heritage is tied to its water resources. The town is bordered on three sides by the sea, with 14.2 miles of tidal shoreline, and has title to two nearshore islands. Numerous pocket beaches and fringing marshes are scattered along the coast. Important inland water resources also grace the town. These include about seven ponds and four major wetland areas comprising 69 acres.

Recreational opportunities in and around these waterbodies are numerous due to public access in many places. Networks of trails and benches around many of the inland water resources allow for walking, birdwatching, iceskating, and model sailboat racing, while parking facilities and public ways encourage residents to enjoy the town's beaches.

Harbor access is provided by public piers in both Marblehead and Salem Harbors, and mooring fees are reasonable.

Many of the town's freshwater resources are currently endangered by increased nutrient loads associated with urbanization. The problem of eutrophication is discussed in more detail in section 4-G (*Environmental Problems*). Several ongoing efforts to combat cultural eutrophication of surface water bodies are mentioned in this section.

1. Surface Water:

Ponds

A glacial landscape of kettle holes, scour lakes, drumlins, and sand and gravel deposits forms the setting for the town's fresh surface waters. In the following section, each of the existing pond systems in town (several ponds have closed in during the last century) is briefly described, and recreational uses and avenues of public access are outlined.

Redd's Pond. Redd's Pond is considered the Walden Pond of Marblehead. It is a glacial scour lake, of approximately 80,000 cu. ft. or 0.6 million gallons. The pond's surface is 58 feet above sea level, and its basin is comprised of hornblende diorite. It is spring fed, with no obvious inlet. While it remains unfrozen, Redd's Pond is home to approximately 100 ducks. The females lay their eggs and raise their fledglings in the adjacent marsh known locally as "Little Nurse Pond." When the pond freezes, the flock winters in a protected cove of Little Harbor. Gulls and migratory birds and waterfowl also frequent the pond. Bass and carp, which are said to have been stocked at some stage, also live in the pond.

The pond is ringed almost entirely by bedrock or pavement, providing a walkway around the perimeter. Redd's is well used for model boat racing, fishing and relaxing. Families are often seen feeding the ducks on the pond. There is much contemporary concern about what appears to be declining water quality in Redd's Pond. Filamentous algae often cover the bottom of the pond and surface algal blooms occur during parts of the summer. Last year the pond was treated with herbicides and algacides to eliminate macrophyte and algal growth. Concern over the environmental problems associated with this type of treatment has led to discussions of alternative treatments. The town was awarded a \$14,500 state matching grant in fiscal 1998. A study is being undertaken using these funds to assess the nutrient status of the water column and of the sediments, and to assess more environmentally sound management options.

Black Joe's Pond. Located 1/8th mile due north of Redd's Pond, Black Joe's Pond is also a perched, spring-fed glacial scour lake, with a dioritic granite basin. Black Joe's has two outlets, one that empties to the ocean, and another that flows north into the Steer Swamp area. It has a maximum depth of 7 feet and a surface area of approximately two acres.

Black Joe's is accessible only by foot, contributing to its preservation. It abuts conservation land and is partially owned by the town. It is used extensively for skating in the winter and some fishing in the summer. The pond is home to mallards, gulls, pheasant, turtles, muskrat, fish hawks, field mice, sparrows, an occasional fox, and bullfrogs. Abutting the northern bank of the pond is Black Joe's Tavern, a private residence and a historic building dating to 1691. Joe Brown, for whom Black Joe's Pond was named, resided in this house from 1798 through his death in 1834. He served as a revolutionary soldier, and his Aunt Crese later used the house as a stop on the Underground Railway.

Hawthorn Pond.

Coy Ponds. The Coy Ponds system is a series of kettle hole ponds, located on the Salem-Marblehead boundary just above Forest River. Only two ponds exist today; a third pond disappeared around the turn of the century. As discussed in Section 4-C4 (*Aquifer Recharge Areas*) this area provided drinking water in the past, and has been reassessed more recently for its feasibility as a future water supply.

Oliver and Ware Ponds. Oliver and Ware Ponds are located in the Clifton section of Marblehead. The Ware Pond site spans 8.5 acres, including the 3.8 acres of pond. The land here is nearly level to gently-sloping, with poorly-drained soils vegetated by red maples, arrowheads and alders. The pond is bordered by an artificial "causeway" which separates it from a one-acre shallow marsh. This marsh is mainly vegetated with jewelweed, cattails and purple loosestrife. A trail around much of the perimeter of the pond is easily accessed for walking, bird watching, and ice skating in the winter. Two benches provide a fine view of the pond.

A local environmental organization, Save the Ponds, is currently planning a restoration effort at Ware Pond, to manually remove invasive species from the margins of the pond, including the omnipresent purple loosestrife and Japanese Knotweed.

Oliver Pond is located just to the northwest and upstream of Ware Pond. The two are hydrologically linked by a stormwater pipe. Oliver Pond is plagued by algal blooms, a signal of its eutrophic condition, likely resulting from direct discharge of stormwater into this water body. The private owners of the pond have undertaken a management program, including herbicide application, to reduce algal growth. There is a real need to eliminate nutrient sources to the pond, rather than treat the symptoms of eutrophication. There is no public access to Oliver Pond.

Nanepashemet Pond (Great Pond) and the Audubon Sanctuary Pond. Nanepashemet or Great Pond, located on Marblehead Neck, has greatly diminished in size in the latter part of this century. A 1943 U.S.G.S. map shows a huge marsh area, where a much smaller marsh exists today. The name "Great Pond" probably referred to the entire system, which now includes several other small ponds, one of which is the unnamed Audubon Sanctuary pond. Located on the 17 acre Audubon Sanctuary, this pond is about 1/2 of an acre in size and only 3 to 4 feet deep, with a silt bed. The pond is spring-fed, and was developed in 1979. This area has been highly manipulated, with the streams that connect the system having been rerouted at various times. Nevertheless, the pond's fresh water, close to the sea, provides an excellent habitat for migratory birds, and a lot of rarities are seen at this site. An occasional green-backed or gray-blue heron, ducks, bitterns, kingfishers, flycatchers, red-winged blackbirds and tree swallows have all been seen here,

as well as morning warblers during spring migration in early June, and white-eyed vireos as early as late April. Even the elusive Connecticut warbler has been seen in the fall. Fishing is not permitted at the Audubon pond, which has been stocked at some stage with goldfish. A southern turtle, the red-eared slider, has been imported to the pond, and has survived three New England winters. Snapping turtles are the native species present at the pond. Mallards nest in the marshy areas, and red-spotted newts breed here.

Several other ponds graced the town in earlier parts of our history, but these have filled in over time due to increasing development pressures. These include Manataug Trail Pond, which is now a woodland marsh, Scotch Pond, now a cattail bog, one of the Coy Ponds, and Devereux Pond. Oliver, Ware, and Nanepashemet Ponds are greatly diminished in size relative to their historical stature.

Marblehead Harbor

Marblehead Harbor is home to approximately 2,500 sailboats, motorboats, and fishing boats. It averages 27 feet in depth, with shallow areas at the head of the harbor. Public access to the Harbor is provided by a public boat ramp at Riverhead Beach and several public piers downtown, including the State Street and Commercial Street wharves.

The waters of Marblehead Harbor are classified as SA (DWPC 1988). Class SA waters are designated for protection and propagation of fish, other aquatic life, and wildlife; for primary and secondary contact recreation; and for shellfish harvesting without depuration in approved areas. No identified major point sources discharge into Marblehead Harbor, although smaller discharges and non-point source pollution inputs are numerous. These include street runoff via storm drains, boat toilets, bilge pump discharges, fuel dispensing spills, and miscellaneous other inputs from the large number of boaters and other individuals who utilize the harbor in one way or another.

Working under a grant from the Federal Clean Waters Act, Marblehead purchased a pump out boat and has begun to offer its services to boaters who use the harbor. However, the process of cleaning up the harbor waters is proceeding slowly due in part to a lack of funds for personnel to perform the pumping. Thus far, Marblehead does not charge for the pump out services and there are approximately 2,500 boats in the two harbors surrounding Marblehead for which the unit is responsible. High fecal coliform counts in the stormwater emanating from the culvert at Riverhead Beach on the south side of the harbor suggest that some quantity of untreated domestic sewage appears to be making its way into the harbor via this discharge point.

Coastal Environment and Beaches

The coast of Marblehead offers a wide array of habitats ranging from exposed, rocky outcrops to protected marshes and mud flats. These habitats provide niches for a wide variety of marine plants and animals. Rocky outcrops dominate much of the coastal landscape. In these areas, characteristic zonations of plants and animals traverse the intertidal zone. Encrusting animals (e.g. barnacles, mussels, and limpets) are common, and in the summer, tidal pools are filled with numerous crustaceans, small fish, and green algae. Rocks are covered with encrusting brown and red algae. In the deeper parts of the intertidal zone, large brown kelp and red algae are found, with more delicate red and brown algae in the upper portions of the intertidal zone.

Cobble and sand beaches are a prominent feature of the Marblehead coastline. Those exposed to the open ocean receive the highest energy waves and contain the largest sand grain sizes. These areas, including Devereux Beach, are ideal habitat for large surf clams. With the closure of the Tinker's Island Sewage outfall at the Roaring Bulls, Devereux Beach surf clams may once again be suitable for human consumption.

The two largest beaches in Town, Preston Beach and Devereux Beach are both barrier beaches. Preston Beach, a sandy beach armored by seawalls, spans the border between

Marblehead and Swampscott. Devereux Beach, a cobble beach, is also armored at one end by the wall supporting the Causeway, the paved road leading to Marblehead Neck. Both beaches have easy public access with both paid and resident parking areas. Preston Beach is bordered by Blodgett Park, a small park recently developed by the Clifton Improvement Association for use by the public. Devereux Beach has a food concession, rest rooms, and a playground. Beachgoers use these public beaches for swimming, walking, sunbathing, and surfcasting. Smaller, but equally popular public beaches include Riverhead Beach, directly opposite Devereux Beach, Gas House Beach, and Grace Oliver Beach. Each of these mixed sand and cobble beaches can be publicly accessed and provide additional recreational opportunities. Gas House Beach was the historical site of a manufactured gas plant (MGP) operated by Marblehead Gas Light Company (MGLC). Contamination from this operation has been uncovered recently, and is discussed in more detail in section 4-G (*Environmental Problems*). High fecal coliform counts in stormwater discharging from Steer Swamp to Grace Oliver Beach are a potential environmental and human health hazard. Signs warning bathers of the potentially high bacterial content of fresh water outfalls were placed at Grace Oliver and Riverhead Beaches in 1998.

Shallow coves with fine sediments are prevalent in the protected areas within Salem, Marblehead, and Little Harbors. These regions, although highly contaminated, support dense beds of mussels and soft-shelled clams. They are important nursery grounds for finfish and crustaceans. Brown and red algae commonly grow on cobbles within these protected habitats, and eel grass is often anchored in the mud of the intertidal zone. Salem Sound 2000 and the town of Marblehead are undertaking a project to restore the watershed surrounding Wyman Cove, so that the once productive shellfish beds there may be rejuvenated and eventually opened for shellfishing again. At the upper ends of the mud flats, saltwater marshes predominate. These regions of saltwater tolerant plants are most common along the Marblehead shoreline at the head of Salem Harbor. Luxuriant meadows of marine cord grass (*Spartina* spp.) serve to anchor fine sediments in place. Upon the death of these plants, significant quantities of nutrients are released into the water, maintaining the fertility of the coastal waters.

2. Flood hazard areas:

A flood insurance study was undertaken in 1983 by FEMA for the town of Marblehead. This study suggests that the low-lying coastal areas of Marblehead are subject to the periodic flooding and wave attack that accompanies coastal storms, including northeasters and hurricanes. Storm damage tends to be limited to low coastal highways, boats, beaches, and seawalls. However, occasional major storms accompanied by strong onshore winds have resulted in storm surge and wave activity that has caused extensive property damage. Some of the more significant storms to impact Marblehead include those of December 1909 and 1959 (approximately 160- and 15- year recurrence intervals, respectively), and February 1972 and 1978 (approximately 25- and 80-year recurrence intervals, respectively). These storms damaged harbors, marinas, commercial developments, and residential developments in the flood-prone coastal areas.

Flood insurance rate maps, also developed by FEMA show the following classifications:

Zone V2:

- The open ocean shoreline beginning at the town line with Swampscott near Preston Beach, running along the coast of Devereux Beach and around the ocean side of Marblehead Neck to Chandler Hovey Park is all classified as V2. These areas are

primarily residential with dense housing development. A seawall runs the length of Devereux Beach causeway and falls within this V2 Zone.

- The area beginning at Fort Sewall and running along the oceanward perimeters of Gerry and Crowninshield Islands to the northwestern most edge of Peaches Point are also classified as Zone V2. Houses are located only in the areas on Peaches Point.
- A Zone V2 area runs along the Salem Sound shore beginning at Eustis Road and continuing to the start of Fluen Point. This area is primarily residential.

Zone V4:

- A small area along Ocean Avenue on Marblehead Neck, between the end of the Causeway and Sargent Road is classified as V4.
- The entire perimeter of Marblehead Harbor, running from Chandler Hovey Park on the Neck to the beginning of Fort Sewall at the edge of downtown is classified as Zone V4. These areas are mixed residential and commercial and heavily developed.
- The area around Little Harbor, and the landward margin of Gerry Island is considered Zone V4.
- The westernmost shore of Peaches Point is considered V4.
- The area beginning at Fluen Point, and running along the perimeter of Salem Harbor to the Marblehead-Salem boundary at Forest River is all considered Zone V4. This area is primarily residential.

Zone A0:

- A narrow band of salt marsh area directly behind Devereux Beach is considered A0. There are no buildings in this area.
- Several small areas on Marblehead Neck are classified as A0, including all of Sargent Road and a small part of Ocean Avenue northward of Sargent Road, and the area at the end of the Causeway where Ocean and Harbor Avenues intersect. There are several houses in the Sargent Road area.

Zone A2:

- A small low-lying area adjacent to and including a small portion of Seaview Avenue near the Swampscott border, and landward of Preston Beach is classified as A2. This area is open grass and roadway.
- Directly behind the A0 zone at Devereux Beach is a large area mapped as Zone A2. This includes all of the Goldthwait Reservation salt marsh, as well as a portion of Phillips Street and Ocean Avenue. Few, if any, houses exist within this area.
- Three areas on Marblehead Neck are mapped as A2. One is directly behind the A0 area at the intersection of Ocean and Harbor Avenues, the second is in the area where Harbor and Foster Avenues intersect and running along Foster Avenue for a small distance, while the third is a small area near the northern part of Ocean Avenue.
- A very small area near Lead Mills, off Lafayette Street, is classified as A2.

Zone A4:

- The area running from the base of Fort Sewall west to Gas House Lane, and behind Little Harbor is considered A4. There are both commercial and residential buildings in this area.
- The tidal area running from the landward shore of Crowninshield Island to the mainland shore including Grace Oliver Beach are mapped as A4. This area is mostly tidal flats.

Zone A5:

- Part of Riverhead Beach is classified as A5. The only structures in this area are the concrete culverts and the Causeway seawall.
- Wyman Cove, on the Salem Harbor side of Town, is Zone A5. This area is a small pocket beach.

Zone B:

- Two rather extensive areas in the southwestern part of town are mapped as Zone B. One is within the Forest River conservation area, and the other runs much of the length of The Path (old railroad bed) between Village Street and Salem Harbor. This area is primarily town-owned wetland areas.

Zone C:

- All of the interior of Marblehead Neck and Marblehead proper not previously mentioned are mapped as Zone C.

The detailed breakdown of flooding elevations within each of these classifications is available on the FEMA maps.

3. Wetlands:

Marblehead has approximately 69 acres of wetland, comprising 2.4% of the town's total area. Wetlands consist of 38 acres of open freshwater wetlands, 20 acres of wood swamps, and 11 acres of saltwater wetlands.

3. Freshwater wetlands areas:

Steer Swamp and Flag Pond

This site, located at the south side of Beacon Street between the Board of Health land (now a recycling and transfer station) and Norman Street, consists of 43.5 acres of roughly varied land. The Steer Swamp Conservation Area is owned by the town, acquired by purchase, eminent domain, and gift, over a period of 20 years. The total wetland ecosystem and drainage area extends beyond the borders of the conservation area, and totals 157 acres. A narrow, moderate yield aquifer underlies the watershed.

Flag Pond lies at the center of Steer Swamp, and a stream (Babbling Brook) flows through the swamp.

Flag Pond was created in the center of the swamp in the mid-1600s when the small stream was dammed in order to power a mill. The dam was later dismantled, allowing the area to revert to its former state as a marsh. This area is filling in at an accelerated rate, evolving from a shallow marsh to a wet meadow. It supports a dense growth of herbaceous aquatic vegetation, as well as cattails, phragmites, arrowheads and purple loosestrife. Two streams with a contributing area of approximately 205 acres feed the pond. The terrain on the upland portions of Steer Swamp is generally steep with many ledgy ridges and shallow to bedrock soils. The clustered vegetation is second-growth scrub and brush over most of the upland portion, representing an early successional stage from its previous use as pasture. The predominant tree species on the upland section include choke cherry, aspen, gray birch and sumac. Lowland portions of the site are swamp and marshland, abounding in speckled alder, arrowwood and willow, low and high blueberry, sassafras, blackberries, bayberries, strawberries, and myriad wildflowers.

The diversity in terrain and ecosystem types (grassy areas, shrubby growth, forest, and wetlands) and the high productivity of these areas make for excellent wildlife habitat, particularly for songbirds and waterfowl. It is the most extensive habitat for wild birds and animals in Marblehead and, on any particular day, mallards, geese, grouse, cardinals and many other songbirds can be observed. Traffic throughout the area is limited to paths used by walkers, mountain bicyclists, and horseback riders. Erosion of trails due to heavy use is especially severe in steep areas. This area is heavily used by neighbors.

The water quality in Steer Swamp is questionable. The stream that runs through the swamp begins above West Shore Drive as an open stream and flows via pipes under the Marblehead Transfer Station. An incinerator on the site of the Transfer Station was shut down in October, 1975. In the past, ash from the incinerator was landfilled at the eastern side of the site, below which the Steer Swamp stream passes before entering the Conservation Area. The ash dump is well above groundwater and reportedly away from all wetlands, so it has supposedly not contaminated the stream. Three real estate related studies conducted in the 1980s on land adjacent to the Transfer Station turned up no evidence of toxic or hazardous contamination of the soil or groundwater. Nevertheless, the site drainage does enter the stream which continues above ground from the Transfer Station roughly one-half mile to Grace Oliver Beach.

Steer Swamp stream has not been sampled for toxins or pollutants in order to determine the effect, if any, of the transfer station and other surface run-off on the conservation area. However, its outflow at Grace Oliver Beach has shown high fecal coliform counts.

Hawthorn Pond Area

This Town-owned conservation area consists of 9.8 acres of wetland and marsh. It is located adjacent to The Path (the old railroad bed), and can be easily accessed by foot through a small trail system. It was acquired by purchases and gifts from a variety of land owners. The area is used for nature study by local schools, and by the many who use The Path for hiking, bicycling, jogging, horseback riding, and cross-country skiing.

The site is moderately sloped, with shallow-to-bedrock soil near the Hawthorn Road entrance, and a low-lying deep marsh in the center of the parcel. The vegetation on the upland portion of the site consists of a mixture of hardwoods and shrubs, including black cherry, pin cherry, staghorn sumac, aspen, and red and black raspberry.

Two separate wetlands are located on the site. To the north is a shallow cattail marsh. Sedges and multiflora rose grow nearby, and speckled alder and red maple rim the border. To the south is a deep marsh, with open water and more sparse vegetation. Duckweed and pond lilies are found in the marsh, with cattail and willows around the edges. These wetlands border a poorly-drained wooded area to the south and immediately adjacent to The Path. The soils on this site range from shallow-to-bedrock fine sandy loams on the upland portions to hardpan-till soil on the eastern side. The wetland soils are composed of deep muck and silt loam.

Gatchell-Wyman Woods

This 33.5 acre site, bordered by Gatchell Playground, Salem Harbor, and The Path, was the first parcel in Town to come under control of the Conservation Commission as a result of the March 1962 Town Meeting. The terrain in Wyman Woods is diverse, ranging from level, poorly-drained wooded swamp between the playground and The Path, to steep, rocky, shallow-to-bedrock uplands near the harbor. There are two distinct hills on the upland portion of the parcel where the soil is especially thin and outcrops abundant. The soils here are deep muck in the low-lying area and shallow-to-bedrock, very fine sandy loams on the uplands. Vegetation consists of primarily willow, red maple, highbush blueberry, and buttonbush in the low lying areas, and a mixture of hardwoods,

including red and white oaks, red maples, hickory, black cherry, red cedar, and white ash on the uplands. The northwestern portion of the parcel abuts Salem Harbor where woodlands transition into an open, grassy area bordering a rocky beach. This area has good potential for passive recreational uses including picnicking, fishing, and swimming. Easy access is provided by The Path. Camp Shore Lea, a former Girl Scout cabin, is located on the portion of the site closest to the playground. Plans are underway to use the cabin as part of the Marblehead Nature Center, a program to provide both children and adults with opportunities to learn about the natural history and ecology of Marblehead's open spaces.

Estuaries

Forest River

The 30 acre Forest River site is located at Marblehead's northwestern boundary with Salem. It includes one of the two significant estuarine areas in Marblehead. The terrain of this area is diverse, with steep exposed bedrock at the former sand and gravel excavation site on the property, poorly-drained soils near the southern border, and saltmarsh bordering the river. The site is accessed by a trail system.

Vegetation is diverse in density and composition, ranging from sparse grasses, weeds, and shrubs in the heavily scoured areas, to thick sumac stands and a pole hardwood stand at the Old Salem Road end of the parcel. Staghorn sumac, gray birch, brambles and pin cherry are the dominant shrub species. Red maple, bigtooth aspen and black cherry pervade the wooded areas. *Spartina patens* dominates the salt marsh.

Much of the soil in the area was disturbed when the site was excavated for gravel, with pits dug down to bedrock or the water table. Two small excavation pits have filled with fresh water. They are currently littered, but could be improved for recreation and wildlife purposes. The remaining ridges are generally composed of shallow-to-bedrock soils and occasional gravel pockets. The presence of tidal gates, which are owned and operated by the City of Salem and are closed for weekends at a time, significantly impaired the ecological integrity of this system. In 1998, the Salem Conservation Commission obtained an agreement to leave the tidal gates open for a 1 year trial period. Heavy erosion of the marsh banks and high fecal coliform counts represent some of the problems associated with inhibited tidal flushing of this estuary.

Goldthwait Reservation

Historically, this area was the site of Devereux Pond, a large pond in the midst of a saltwater marsh. The pond no longer exists either because of sea level and coastal changes and/or successive encroachments into and filling of the marsh with the increasing settlement of this area. Today the area consists of 12 acres of salt marsh/salt meadow nestled behind Devereux Beach, a cobble, barrier beach. The marsh is connected to Riverhead Beach by a series of 48 inch culverts. A small tidal creek meanders through the marsh, dividing several times. The creek is bordered by a small quantity of salt marsh cord grass (*Spartina alterniflora*), while the majority of the marsh is vegetated by a dense stand of salt meadow grass (*Spartina patens*). The Reservation is bordered by a band of common reed (*Phragmites communis*), a common inhabitant of marsh edges and fresh-salt water transition zones.

Along the northern and western borders, where runoff from the adjacent residential neighborhood enters through several stormwater pipes, the area is vegetated by invasive freshwater wetland species. These include cattails (*Typha*), purple loosestrife (*Lythrum salicaria*), sensitive fern (*Onoclea sensibilis*), Willows (*Salix* sp.), and red maple (*Acer rubrum*). The Trustees of Goldthwait Reservation have recently undertaken a restoration effort at the marsh, aimed at eradicating these invaders through mechanical removal and burning of vegetation, as well as channel dredging to enhance circulation of salt water

within the marsh. Because the real culprit is likely fresh stormwater runoff, a rerouting of the town's stormwater drains will be necessary to restore the marsh.

The perimeter of the marsh is easily accessed near the public parking lots at Devereux Beach. Historical records show that several other marshes previously existed in town, including the Great Swamp (or Brickyard Reservoir). These marshes like some of the former ponds have filled in due to residential development.

4. Aquifer recharge areas:

Marblehead's potential ground water supply is limited due to lack of aquifers and potential saltwater intrusion. Since 1952, Marblehead's water supply has been provided by the Metropolitan District Commission. Prior to joining the MDC system, Marblehead water came from Town-owned wells and a pumping station off Loring Avenue in Salem, and from Thompson Meadow, also in Salem.

Thompson Meadow was purchased by the town on May 28, 1912, from Orin Thompson (54.5 acres) and R.D. Potter (12.8 acres) to supplement the town water supply. In 1923-24 this area was tied in to Marblehead's Legg's Hill filter beds to supplement that supply. These wells were shallow driven wells that collected mainly surface water, providing approximately 630,000 gallons per day. When the quality of the water from these wells deteriorated, they were taken out of service and the town became part of the Metropolitan District Commission's water supply network.

In 1985, Town Meeting authorized a study to determine the current quality of water in the wells. The data received to date indicates that there is a good possibility that this water could be utilized with some treatment to reduce excess iron. As part of this effort, the Zone II (zone of contribution to the well) for this potential water supply was mapped by SEA Consultants. This study concluded that the safe yield of the aquifer is about 0.3 mgd, and that in order to be used as drinking water, water drawn from this site would require filtration to reduce turbidity and metal concentrations, and disinfected since the supply would be partially induced from a nearby pond.

The Sewer and Water Board has always been on the forefront of efforts to conserve water. During this decade, the board initiated an aggressive leak detection program. The results of this program show that unaccounted water use in the town is one of the lowest in the state. The Board has also pursued a state grant for the identification of infiltration within the sewer system. The Sewer Board received a 90% grant to study the inflow and infiltration of the system. The grant itself was for \$272,000, but the long term benefits to the rate payers will be in the millions of dollars as the cost of sewage treatment continues to escalate. Both of these programs contribute significantly to the very best possible use of our resources.

The town's two elevated water tanks hold a one-day supply: 1.5 million gallons at the Village Street tank and 1 million gallons at Burke's Hill. Average water use is 100 gallons per person per day (total: 2.2 million gallons per day).

D. Vegetation

Marblehead (along with Salem) is one of the most densely populated communities on Salem Sound. Our town is at about 95% of build-out and lots which only a few years ago were not considered fit for building are now being built on. We are fortunate to still have a reasonable amount of public open space in our parks and conservation lands. And we are fortunate that our Recreation, Park and Forestry Department has been very active in maintaining the trees along our roads and in public areas. However, there is still a lot of stress placed on the remaining vegetation.

Any remaining “Pocket” woods and wetlands (those small, privately owned parcels not coming under the jurisdiction of the Conservation Commission or the Rec, Park and Forestry Department) are being consumed. Abutters to conservation lands often expand their yards to include a little bit here and there of the conservation lands. Or they use them as dumps for their yard waste.

It is still recognized that Marblehead has a very valuable series of conservation lands. These lands encompass heavily wooded areas; wetlands such as salt marshes, inland marshes and tidal flats; open fields and rocky outcroppings. All together, these areas afford the public some very enjoyable vistas, pleasant hiking and the opportunity to commune with nature. In addition, the vegetation on these lands and the many trees along our streets provide the public with a very real awareness of the vital role such vegetation plays in the physical and mental health of our community. While such open spaces provide many important values, perhaps one which is of significant value to our town is the stormwater storage capability. Since there is a very large amount of impervious surface in our very dense town, the ability of these open spaces to take up water during heavy rainfalls has become extremely important to prevent local flooding of some neighborhoods. These lands also provide much needed habitat for terrestrial and aquatic wildlife. A vernal pool has been identified and registered on one of these lands.

Another interesting feature of our conservation lands is that four of them (there are five total) are interconnected by an old railroad bed and the bed has become a popular path for walkers and bike riders. The bed is under the jurisdiction of the electric and sewer departments but these departments maintain it for public use as well as for their purposes of providing services to the community. This bed, or path as it is popularly called, is about 4.5 miles long and meanders in, through and out of the conservation lands. Even though the path is abutted by many residences, because of dense vegetation it is possible to get the feeling one is walking down a country lane. Marblehead is on the Atlantic flyway, a major bird migration route and the plants described below provide a wide variety of food for wildlife, especially birds.

Trees are major contributors to soil chemistry which is vitally important to both wildflowers and amphibians. Our oaks and pines, for example, enhance the acid environment required for high and low bush blueberries, Indian pipestem, Jack-in-the-pulpit, columbine, lady’s slippers, wild oats and many other plants. In particular, Indian pipestem and lady’s slippers are so sensitive to soil chemistry and the presence (or absence) of certain microorganisms that they rarely survive transplantation. Marblehead is very fortunate to have the foregoing as one of our “plant communities”.

Another plant community present in Marblehead includes swamp maple, alders, pussy willows, clethra, Joe Pye weed, thalictrum, false lily-of-the-valley, horsetail, native geraniums, a host of ferns and mosses and other aquatic plants including cat o’ nine tails.

The areas that transition between the oak-dominant and maple-dominant areas include locust trees, paper birch, black cherry, red cedar, blackberries, (red and black) raspberries, strawberries, grasses, rugosa roses, vetches and cinquefoils. The locust trees also border our more open sunny areas and salt marshes along with willows where chickory, beach peas, toadflax, daisies, rabbit and several other clovers flourish.

Protection:

The management of our conservation lands is a critical issue. Citizens have identified the type of problems mentioned above. In addition, invasive plants such as oriental bittersweet, Japanese knotweed, purple loosestrife and phragmites threaten to convert some of these lands into less valuable monocultures. Since there are no public funds for maintaining these lands they have become overgrown and are in danger of becoming less accessible to the public in the not so distant future. To help combat this problem, one of the local schools has been very instrumental in keeping some of the trails open and in policing the area for trash. It is recognized that the best way to maintain the lands is by having them used by the public which in turn will want to preserve

them for their enjoyment. Within reason, the more people who use these lands the more support they will receive. Education of the public is a key element in achieving this goal.

E. Fisheries and Wildlife

The wildlife is typically suburban: rabbits, raccoons, skunk, fox, pheasants, and songbirds. Because the town is located along the Atlantic coast flyway for migratory birds, both local and transient waterfowl are plentiful. Shellfish, mussels, clams, lobster, and finfish abound in the salt water. Bluegills, carp, and horned pout can be found in a few freshwater ponds.

A vernal pool was identified in the Forest River conservation area and registered with the Massachusetts Division of Fisheries and Wildlife in April, 1998 as pool #1442. To qualify as a vernal pool, the water in the pool must contain certain obligate amphibian and/or invertebrate species. The obligate species found in this particular pool was fairy shrimp (anostraca). Registered vernal pools are protected by the Massachusetts Wetlands Protection Act. Any discharge of fill material into, or dredging from, a registered vernal pool is strictly prohibited.

F. Scenic Resources and Unique Environments

Situated on a peninsula and protruding like a thumb out into the Atlantic, Marblehead offers an unusual amount of scenery for such a small place. Vistas from Marblehead Neck look south toward the Boston skyline and East toward the ocean. Other vistas from the Neck and the mainland look west towards Salem and North toward Cape Ann. Strung along these waterside open spaces are beaches, rocky outcroppings, and tidal pools. Both the neck and mainland are sprinkled with open spaces including the uplands and wetlands of Wyman Woods, Steer Swamp, the ponds in the Audubon sanctuary, Hawthorn Pond, and Ware Pond Conservation Areas. One of the most unique environments in town is the abandoned B&M Railroad bed, now called The Path or Right of Way. This emerald necklace is approximately 4.5 miles and links together some of our most natural open spaces and conservation areas. A one-hour walk on this greenway starting at the Swampscott line will take you past Ware Pond, the Sorosis Farm, Wye Pond, Hawthorn Pond, Wyman Woods, Lead Mills, Salem Harbor, and finally to the Forest River Conservation Area.

Glacial scarring, in the form of striations on the polished rocks, are found in both the Forest River Conservation Area and on Flirtation Rock at Preston Beach. Flirtation Rock is periodically visited by high school and college geology classes because of its unique geology. Clearly exposed on the rock are dikes, faults, volcanic bombs, mineral crystallization, and other signs of the Earth's dynamic geology. Chandler Hovey Park shows clear signs of volcanic flows. Tombolos connect Marblehead Neck to the mainland and Gerry Island to Gas House Beach. Protruding into the ocean as it does, and falling on the Atlantic flyway, Marblehead is a great place to observe the spring and fall bird migrations. Marblehead periodically falls in the path of the Monarch butterfly migration and plants such as Japanese knotweed can be seen decorated with countless Monarchs during these years.

G. Environmental Problems

1. Water Quality

Marblehead is geographically small and very developed, with continued new home construction. As a result, there is tremendous pressure on the town's remaining natural resources, open spaces, and even its conservation lands. Deteriorating fresh water quality associated with increased development is a significant concern.

Many of Marblehead's freshwater resources are currently endangered by increased nutrient loads associated with urbanization. Stormwater drainage systems currently utilize many of the existing brooks and waterbodies, channelizing untreated stormwater runoff into these fragile systems. Visual signs of eutrophication, including severe algal blooms and invasion of exotic terrestrial plants and macrophytes are obvious in most fresh waterbodies. High fecal coliform counts are measured in many of these waters and at stormwater outfall pipes on the public beaches. In 1998,

the Board of Health placed signs at several of these outfall locations that warn the public of the poor water quality. Low dissolved oxygen concentrations have also been measured in some ponds. Several efforts to combat cultural eutrophication have been, and are currently being undertaken, including those at Redd's Pond, Ware Pond, and Goldthwait Reservation, as described in more detail in Section 4-C (*Water Resources*). Despite these efforts, more must be done in these areas, including implementing appropriate best management practices. Suggested BMP's include redirecting and/or infiltrating stormwater flow, better maintenance of existing storm drains, more frequent street cleaning, or dredging of nutrient-rich sediment.

Other water bodies throughout town also need attention. For each of these water resources, the water quality and habitat viability should be assessed by measuring water column and sediment nutrient concentrations, water column chemistry (including dissolved oxygen, pH, specific conductivity, redox potential, etc.), and biological parameters including chlorophyll a. These data should be used in determining the trophic status of each water body. Only then can appropriate remediation and management plans be developed to enhance the water quality at these areas.

2. Hazardous Waste

Historical and recent industrial activity has left the town with several hazardous waste sites, and has likely resulted in soil concentrations of heavy metals and other contaminants above background in some locations. The downtown region of Marblehead has a history of industrial activity dating back several centuries which includes shoemaking, silversmithing, lead milling, and fishing. Wastes from these processes, including heavy metals are likely to be found in the soils.

There have been several state-listed hazardous waste spills in Marblehead including an oil release at the Star of the Sea parking lot at 80 Atlantic Avenue, and a gasoline release and leaking underground storage tank at Cloutman's Boat Yard on Cliff Street, both of which are classified as Tier I Disposal Sites, Phase I. Tucker's Wharf, on Marblehead Harbor, is the site of another leaking underground storage tank, and of metal contamination. Remediation is ongoing at Tucker's.

Gas House Beach and the area surrounding it has also undergone a Phase I investigation. This site was formerly operated as a manufactured gas plant (MGP) from 1854 to approximately 1911 by the Marblehead Gas Light Company (MGLC). The site contains high levels of polynuclear aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), petroleum identification (PET ID), and total cyanide.

The Lead Mills site, located on the Forest River at the base of Salem Harbor, is also a state-listed site, where high quality white lead was manufactured from 1830 through the 1960's. A 1994 investigation yielded a mean soil lead concentration 622 mg/kg dry weight for 30 soil samples. Hot spots exist, with concentrations as high as 13,800 mg/kg lead. The remaining RCRA 8 metal concentrations are below the MCP Reportable Concentrations (RCs). Testing for semi-volatile compounds detected 7 compounds significantly above the Reportable Concentrations: benzo (a) anthracene, benzo (b) fluoranthene, benzo (a) pyrene, chrysene, dibenzo (a,h) anthracene, indeno (1,2,3-cd) pyrene, and dibenzofuran. Ten additional compounds were detected at concentrations below the RCs. Only a small portion of this site has been capped.

3. Landfills

The town's only landfill is no longer active, but remains a transfer station, from which the town's solid waste is shipped to an out-of-town incinerator. The landfill is a potential environmental problem. It abuts the Steer Swamp Conservation Area, which drains to the ocean at Grace Oliver Beach. No comprehensive testing has been undertaken to determine how much leachate might be emanating from the landfill. High fecal coliform counts have been measured in both Steer Swamp and at the stream that runs from the swamp to Grace Oliver Beach.

4. Erosion

Marblehead's rocky geology prevents erosion from being a significant problem. There are, however, some coastal banks comprised of glacial outwash that have experienced serious erosion. Many of these areas have been hard-stabilized over the last century through the construction of seawalls. Erosion in non-coastal regions of town is minimal.

5. Chronic Flooding

Flooding has become increasingly problematic in recent years, a result of continued urbanization. Flooding now occurs in areas of town not previously impacted by floods. The increased impermeable surface area associated with new roads, driveways, and houses is straining existing stormwater infrastructure so that the system is no longer as effective in carrying away stormflows as it once was. Maintenance of stormwater drains is also a problem.

Section 5. Inventory of Lands of Conservation and Recreation Interest

Property Grant	Owner	Manager	Use Zoning	Public Access	Acerage	Protection SCORP ID	Condition	Pub
Abbot Hall	M168 CR	M168 0.5	rec 168001	free	none	good	none	yes
Alley Steps	M168 CR	M168 neg.	walk	pubway	none	good	none	no
Alley Way	M168	M168	walk					
Audubon Sanctuary	non-profit yes	MA Audubon Society ESR	Society 18.76	rec	free	perpetuity	good	none
Barneгат Landing (see Grave's Beach)								

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Beacon Street	M168 SR	School Dept. 9.8	rec 168003	free	none	fair	none	yes
Bell School	M168 SR	School Dept.	rec	free	none	good	none	yes
Boston Yacht Club	private private	H	rec	paid	none	good	none	
Black Rock Lane								
Brookhouse Drive Median Strip	M168 none	yes	Highway SR			free	none	good
Brown's Island (See Crowninshield Island)								
Captain John Glover Hooper Burial Site			M168 no	Cem. Dept. SR		view	free	none
Castle Rock	M168 SESR	Rec. Dept. 1.15	rec 168027	free	none	good	none	yes
Cat Island (see Children's Island)								
Chandler Hovey Park	M168 SESR	Rec. Dept. 4.45	rec 168034	free	perpetuity	good	none	yes
Children's Island (formerly Cat Island)	none	good	non-profit	yes	YMCA Salem	rec 29		unofficial
Clark Landing aka State St. Landing	none	yes	M168 H	Harbors 0.59	rec 168004	free	none	fair
Cliff St. Boatyard formerly Cloutman's	none	yes	M168 SGR	Harbors 0.53	rec	free	none	good
Cloutman's Boatyard (see Cliff Street Boatyard)								
Coffin School	M168 SR	School Dept	rec	free	none	fair	none	yes
Commercial St. Park	M168 SGR	Rec. Dept.	rec	free	perpetuity	good	none	yes
Commercial Street Landing	yes	M168 SGR	Harbors	rec	free	none	good	none
Corinthian Yacht Club	private private	SESR	rec	paid	none	good	none	
Cove Lane	M168 no	M168 SESR	beach access 0.16		pubway	none	good	none
Cressey Street Cemetery	none	M168 no	Cem. Dept. SR			free	none	good
Crocker Park	M168 H	Selectmen 1.75	rec 168030	free	perpetuity	good	none	yes
Crowninshield Island aka Brown's			non-profit		Trustees of Reservations	rec	free	
Danger Beach	M168 no	M168 SSR	good beach access 0.68	none	SALEM pubway	7.2	168023	
Des Moulin Lane	M168 SESR	M168 0.16	view	pubway	none	good	none	yes
Devereux Beach	M168 SSR	Rec. Dept. 19.06	rec 168033	free	perpetuity	good	none	yes
Doliber Landing	M168 SSR	M168	rec	free	none	good	none	
Dolphin Yacht Club	private private	SGR	rec	paid	none	good	none	
Eastern Yacht Club	private private	SESR	rec 3	paid 168020	none	excellent	none	
Eveleth School	M168 SR	School Dept 3.5	rec	free	none	good	none	yes
Fishing Point Lane	M168 SESR	M168 0.12	view	pubway	easement	fair	none	yes

Forest River	M168 SR	ConCom 30.14	rec	free	perpetuity	good	none	yes	
Fort Beach	M168 SCR	Rec. Dept. 0.77	rec	free	168031	good	none	yes	
Fort Beach Shanty Area	none	M168 yes	Selectmen SCR			free	none	fair	
Fort Sewall	M168 SSR	Selectmen 2.43	rec	free	168010	perpetuity	good	none	yes
Fountain Park	M168 H	Rec. Dept.	rec	free		perpetuity	good	none	yes
Fuller Lane	M168 SESR	M168	view	free		none	good	none	yes
Gallisone Avenue	M168 SSR	Highway	rec	pubway		none	good	none	yes
Gas House Beach	M168 H	Selectmen 0.38	rec	free	168028	none	fair	none	yes
Gatchell Green	M168 SR	Highway	rec	free		none	good	none	yes
Gatchell Playground	M168 SR	Rec. Dept. 21.9	rec	free	168008	perpetuity	good	none	yes
Gerry Island	private H		rec	unofficial		none	good	none	yes
Gerry Playground aka	Stramski good	M168 none	Rec. Dept. yes	SR/SSR	7.25	rec	free	168026	perpetuity
Gerry School	M168 SR	School Dept 1.5	rec	free		none	good	none	yes
Gingerbread Lane	M168 SR	M168	walk	pubway		none	good	none	no
Glover School	M168 SR	School Dept 4.3	rec	free		none	good	none	yes
Goldthwait Reserve	private yes	Gold. Res. Assoc SR/SSR	15.58	rec	168011	unofficial	perpetuity	good	none
Grace Oliver Beach	private SSR	2.12	rec	unofficial		none	good	none	yes
Grace Oliver Landing	M168 SSR		rec	free		none	good	none	no
Graves Beach aka Little Harbor	good	& Barnegat landing	no	M168 SSR	Harbors	rec	free	none	
Green Street Cemetery	none	M168 no	Cem. Dept. SR			free	none	good	
Gun House	M168 CR	Selectmen	rec	free	?	good	none	no	
Harris Street Cemetery	M168 CR	Cem. Dept.		free	none	good	none	no	
Harvard Street	M168 yes	M168 SESR	0.31	beach access		none	good	none	
Hawthorn Pond	M168 SR	ConCom 8.85	rec	free		perpetuity	good	none	yes
Hobbs Playground	M168 SR	Rec. Dept. 1.14	rec	free		perpetuity	good	none	yes
King Hooper Mansion	private U	0.3	rec	paid	168009	none	excellent	none	no
Knight's Hill Road	private CR		walk	pubway		perpetuity	good	none	yes
Lead Mills	private SSR		none	none	none	poor	none	yes	
Lee Mansion	private CR	Historic Co 0.5	rec	paid	168006	none	good	none	no

Legg's Hill

Lighthouse Lane

Lincoln Avenue M168 School Dept rec free none fair none yes
 ECR 6.5
 Little Harbor see Grave's Beach

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Lookout Court M168 M168 view subway none good none no
 CR
 Lovis Cove M168 Rec. Dept. rec free none good none yes
 SCR
 Maintenance Garage & Storage Area M168 Rec. Dept. none none none fair
 none no SR
 Marblehead Charter School none ECR good none yes
 Marblehead Harbor M168 Harbor rec free perpetuity good none yes N/
 A
 Marblehead Light US Gov. M168 rec free US Gov good none no
 SESR 0.08
 Marblehead Yacht Club M168 M'hd Yacht Club rec paid none good
 none private SGR
 Memorial Park M168 Rec. Dept. rec free perpetuity good none yes
 B1
 Middle School M168 School Dept rec free none good none yes
 SR
 Nahant Street M168 M168 view subway none good none yes
 SESR 0.26
 Ocean Ave. Beach private view none perpetuity good none yes
 SESR
 OKO Building M168 M168 rec free none good none no
 CR
 Old Burial Hill Cemetery M168 Cem. Dept. free none good
 none no CR 2.5 168002
 Old Town House M168 M168 rec free none good none no
 U 0.2 168019
 Olivers Pond private none none good none yes
 SR
 Orne Playground M168 Rec. Dept. rec free ? good none yes
 SR 5.09
 Parker Lane M168 M168 water access subway none good none
 yes SESR 0.42
 Parkers Boatyard M168 Harbors rec free none good none yes
 SGR 0.54
 Peabody Avenue M168 M168 view subway none good none yes
 SESR 0.14
 Point O'Rocks Lane M168 M168 view subway none good none yes
 SESR
 Powder House M168 M168 rec free none good none no
 ECR 0.5 168014
 Preston Beach private Clifton Imp. Assoc. rec unofficial none good none
 yes SWAMP
 Railroad ROW M168 Muni. Light and Water & Sewer Depts. free none
 good none yes VAR. 21.39 168005

Ram Island Salem	private SALEM 5						none	yes	
Red Steps Beach	M168 SGR	Rec. Dept.	rec	free	none	good	none	no	
Redd's Pond	M168 CR	Cem. Dept.	rec	free	none	fair	none	yes	
Reynolds Playground U	M168	Rec. Dept.	rec	free	perpetuity	good	none	yes	ECR/
Riverhead Beach	M168 SSR	Rec. Dept. 1.7	rec	free	?	fair	none	yes	
Seaman's off Harbor Salem Harbor	View Lane private private	private SSR		view	none	perpetuity	good	none	
Seaside Park SSR	M168 17.21	Rec. Dept. 168018	rec	free	perpetuity	excellent	none	yes	SR/
Senior High School	M168 SR	School Dept 2.	rec	free	none	good	none	yes	
Sevinor Land (see Sorosis Farm)									
Sorosis Farm	M168 SR	School Dept 33	rec	unofficial	none	good	none	yes	
Star of the Sea Cemetery	private none	no			St. Mary's Church SR	unofficial	none	good	
State Street Landing	see Clark	Landing							

H

0.59

168004

Steer Swamp	M168 ESR	ConCom 45.45	rec	free	perpetuity	good	none	yes	
Stramski Playground (See Gerry Playground)									
Tedesco Country Club	private private	SR	rec	paid	none	good	none		
Thompson's Meadow	M168 SALEM	Water/Sewer 113		free	none	good	none	yes	
Tinker's Island	private yes	Tinker Island Salem SALEM 12.77						none	
Tower School	private SR		rec	unofficial	none	good	none	yes	
Transfer Station	M168 U	Bd. Health 16	dump	free	none	fair	none	yes	
Tucker's Wharf	M168 H	Harbors	rec	free	none	fair	none	yes	
Village St. Pier	M168 SSR	Harbors 0.08	rec	free	none	good	none	yes	
Ware Pond	M168 SR	ConCom	rec	free	perpetuity	good	none	yes	
Waterside Cemetery SSR	M168 39.79	Cem. Dept.			none	excellent	none	no	SR/
Ways Elm/High Sts. #20-24	High M168 none ?		M168	walk	pubway	none	good		
Ways Elm/High Sts. #32-34	High M168 none ?		M168	walk	pubway	none	good		
Wye Pond	M168 SR	M168	rec	free	none	poor	none	yes	

Wyman Woods	M168 SR	ConCom 29.73	rec	free	perpetuity	good	none	yes
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Below is a compilation of all lands in Marblehead which are protected as conservation lands or as parks or via conservation restrictions or trusts.

Audubon Sanctuary	18.76 acres	sanctuary
Chandler Hovey Park	4.45	park
Commercial St. Park		park
Crocker Park		1.75 park
Crowninshield Island	7.2	trust
Devereux Beach		19.06 park
Forest River		30.14 conservation land
Fort Sewall		2.43 park
Fountain Park		park
Gatchell Playground	21.9	park
Gerry Playground		7.25 park
Goldthwait Reserve	15.58	trust
Hawthorn Pond		8.85 conservation land
Hobbs Playground		park
Knight's Hill Road		
Marblehead Harbor		ocean harbor
Memorial Park		park
Ocean Ave. Beach		park
Reynolds Playground		park
Seaman's off Harbor View Lane		conservation restriction
Seaside Park		17.21 park
Steer Swamp		45.45 conservation land
Ware Pond		conservation land
Wyman Woods		29.73 conservation land

A. Protected Parcels

Protected parcels are land which is owned by the Conservation Commission or Water Department, is owned by the Town as a park, is owned by a non-profit land trust or has a conservation or deed restriction in perpetuity.

Audubon Sanctuary

Marblehead Neck is about one mile long and one half mile wide. It is composed mainly of metamorphic rock which is volcanic in origin. The interior wooded area has long been used for birding due to its unique position along the "Atlantic Flyway." In 1954 the "Neck Improvement Association" with the help of Walter McKim, raised the necessary funds and donated the land to the Mass. Audubon Society along with a substantial endowment that is used for upkeep. Birders come from all over, especially in spring and fall. It is used throughout the year for nature study, jogging, walking, and cross country skiing in the winter. A trail guide has been prepared by the Marblehead Neck Garden Club. The guide is available at the library or from the Club.

**Brown's Island (See Crowninshield Island)
Crowninshield Island (formerly Brown's Island)**

This island straddles Little Harbor and Doliber Cove. Originally called Brown's island, it was renamed for Mrs. Francis B. Crowninshield, a resident of Peaches Point and one of the nation's leading advocates of historic preservation. She gave the island to the Trustees of Reservations in 1955. The 5 acre island is composed of an unusual variety of land forms: granite shore and tidal pools, sand beach, salt marsh, and wooded hilltop which rises to approximately 50 feet above sea level. From the hilltop there is a sweeping view of Salem Bay, the Beverly shoreline, and Baker's and Misery Islands. The island is heavily used in the summer months by groups and families for swimming and picnicking. Most users arrive in boats which are anchored in deeper water. At low tide it is possible to walk across the mud flats from several points of public access, one being Harding Lane off Beacon Street.

Chandler Hovey Park

Located on the eastern arm of the entrance to Marblehead harbor at the far end of Marblehead Neck off Follett Street. The area consists of grass and shrubs over a rocky area with a magnificent view of Marblehead Harbor and adjacent coastline and waters. There are accessible restrooms, 2 pavilions, 12 benches, 6 picnic tables, and a parking area for about 35 cars. The parking area is open daily from 8:00 AM until 10:00 PM from Memorial Day through Labor Day. Several of the small rocky beaches are used for swimming.

Crocker Park

A delightful waterfront park in old Marblehead on one of the highest points of the harbor. The area has uneven ledge and grass areas with some trees, shrubs, and flower beds. There are also 15 benches, a small pavilion, public restrooms (not accessible to the disabled and open for special functions only), and a drinking fountain. A swimming float with two diving boards is moored adjacent to the park and is reached by descending a set of stairs. There is no parking nearby, except on adjacent streets, so it is best to walk or bicycle to this area. In the summer the park is sometimes used for various festivities such as band concerts and viewing the fireworks on the Fourth of July.

Forest River

The approximately 30 acre Forest River site is located between the end of Old Salem Road and the Forest River which runs adjacent to the Marblehead/Salem town line. It includes one of two significant estuarine areas in Marblehead, the first being the Forest River area. The second area is on Swampscott Road and flows through Thompson's meadow. The terrain in the Forest River area is diverse, ranging from steep exposed bedrock and cutbanks of the former sand and gravel excavation site to the level, poorly drained area on the southern border and the salt marsh bordering the Forest River.

Two small excavation pits have filled with fresh water and provide a habitat for wild fowl. A vernal pool, registered with the Massachusetts Natural Heritage and Endangered Species Program and mentioned in Section 4 E, is present in the spring and is located in the vicinity of the entrance on Old Salem Road. Vegetation cover is diverse in density and composition, ranging from sparse volunteer growth of grasses, weeds, and shrubs in the heavily scoured areas to thick sumac stands and the pole stage hardwood stand at the Old Salem Road end of the parcel. Staghorn sumac, gray birch, brambles, and pin cherry are the dominant shrub-type species. Red maple, bigtooth aspen, and black cherry dominate the wooded areas. *Spartina patens* dominate the salt marsh.

Much of the soil in the area has been disturbed since the site was previously used as a source for sand. The soil was excavated for gravel down to the bedrock or the water table. The ridges are generally composed of shallow to bedrock soils and occasional gravel pockets. Access to the area is best obtained off Old Salem Road near the back of the Star-of-the-Sea Cemetery. Parking is available here. Another access is marked by a sign on the west side of Lafayette street a few hundred feet up the hill from the Marblehead/Salem townline. Access to Forest River Conservation land is also possible on Legg's Hill Road, marked by a sign, but parking is not recommended along this street.

Fort Sewall

Fort Sewall is a Revolutionary War fort that was used to protect the harbor. The fort was given to the town by the federal government in 1922 to be permanently used as a public park. There are magnificent views of open ocean, coastline and Marblehead and Little Harbors. This location provides grass areas, historic structures, benches, and rest rooms (not accessible to the disabled) open mid-June through the end of October. Fort Sewall is used primarily for passive recreation

activities, picnicking, sightseeing and just plain relaxation. There is a small parking lot near the entrance to the fort.

Fountain Park

Fountain Park is situated high above Little Harbor off Orne Street and directly across from Old Burial Hill cemetery. This park has an excellent view of open ocean, coastline and Little Harbor. There is a pavilion with benches where one can rest and marvel at unbelievable views. Limited parking is available along Orne Street.

Goldthwaite Reservation

Goldthwaite Reservation is located on the Atlantic Ocean, adjacent to Devereux and Tucker's Beaches. Dr. Joel Goldthwaite donated his private estate to be used by the residents of the town in 1947. The approximately 14 acres include a brackish marsh, a cobble embankment, and beach frontage. There is a small parking lot and three fireplaces. Limited use of the picnic and beach area is allowed by small groups with a special permit obtained from the reservation's the Board of Directors. This is the only salt marsh in Marblehead providing invaluable habitat for marine and wildlife.

Great Harbor or Marblehead Harbor

Yachting and fishing and related industries-boat building, sail making, boat rental and repair-are important to the town. There are 2,338 mooring permits for pleasure boats and 100 for commercial craft. Marblehead Harbor is filled to capacity with 1800 moorings and the mooring area on the Salem Harbor side of Marblehead utilizes approximately 500 moorings out of a potential 1,200 available. Five yacht clubs are located around the perimeter of the harbor. There are five public landings in Marblehead Harbor: Commercial Street, Clark Landing, Parker's Boat Yard, Tucker's Wharf and Cliff Street Boat Yard. There are several public ways that provide access to the harbor. Riverhead beach is at the southwesterly end of the harbor where there is a public launch.

Marblehead Light

This is a light tower at the entrance to Marblehead Harbor, owned by the Federal Government and maintained by the Coast Guard. It sits at the end of Marblehead Neck within Chandler Hovey Park and is accessible to the public with special notice.

Hawthorn Pond

This parcel is located between the end of Hawthorn Road and the old railroad right of way. It is managed by the Conservation Commission having been acquired by purchases and gifts from a variety of owners. Access to this parcel is available from the end of Hawthorn Road or from the old railroad bed. The terrain on this parcel ranges from moderately sloping shallow to bedrock soil near the Hawthorn Road entrance to the low-lying deep marsh in the center of the parcel. A trail system crosses the parcels and intercepts the old railroad bed. A few smaller paths allow visitors to explore the remainder of the site. The vegetation on the upland portion of the site consists of a mixture of hardwoods and shrubs, including black cherry, pin cherry, staghorn sumac, aspen and red and black raspberry.

There are two separate wetlands that dominate the center of the parcel. The wetland to the north is classified as a shallow marsh. It is dominated by cattails and also includes sedges and multiflora rose. Speckled alder and red maple border the marsh. The wetland to the south is classified as deep marsh or pond. The vegetation here is much more sparse, as open water is clearly visible. Duckweed and pond lilies are found in the marsh, with cattails and willows around the edges. These wetlands border a small poorly drained wooded area on the south that is immediately adjacent to the old railroad bed.

The soils on this site consist of shallow to bedrock fine sandy loams to the upland site of the main trail and a hardpan-till soil on the eastern side. The wetland soils are composed of deep muck and silt loam on the soils with lower water tables. This area is presently used by the several schools in the vicinity (the Bell, Glover, Tower, Middle, and High Schools) for nature study and by the many who use the railroad bed for hiking, bicycling, jogging, horseback riding, and cross-country skiing.

Memorial Park

A small town park located at the junction of Pleasant Street and Essex Street. The park is dedicated to the memory of veterans who died in past wars. Flower and shrub beds are maintained along with 3 benches for people to rest and reflect. The entire park sits under the canopy of six large trees.

Salem Harbor

This description refers to that portion of Salem Harbor which is shared by the city of Salem and the town of Marblehead. It is relatively shallow but does serve as an anchorage for many small boats on the Marblehead side. A large portion of its perimeter contain clam beds which, unfortunately, are not harvestable at this time due to pollution. There are a number of beaches along its shore offering quiet areas of beautiful vistas. The inner harbor is popular with water skiers due to its shallowness and large expanse of water.

Seaman's - Off Harbor View

In 1997 the owner of this property granted the town a conservation view restriction to insure that the public would forever have another view of the Marblehead harbor from this particular vantage point. Harbor View intersects with Chestnut Street at the south end of the harbor. There is no public access.

Seaside Park

This is the largest park in our town and offers many passive and active recreational opportunities. There are six all-weather lighted tennis courts and a practice area. There is a regulation-size, all-weather, lighted basketball court and full-size major league baseball diamond which is maintained for school, youth baseball, varsity and other baseball leagues. Off season, field hockey and soccer youth teams use the outfield. There is a large grandstand building with rest rooms (not accessible to the disabled), a field house and locker rooms, and the tennis office which serves as the backstop for the baseball field. A good-sized asphalt area at the rear of the grandstand is flooded in the winter for skating and used for street hockey in the summer. There is also an excellent hill for winter sliding. The rear of the park borders on Marblehead harbor and offers some wonderful views of the harbor as well as of Massachusetts Bay. This section is quite hilly and has walking paths and benches and contains a variety of trees and shrubs. There is a 14 station exercise trail which runs along the perimeter of this section. Many years ago this was the site of Fort Glover.

Steer Swamp

This site, located between Beacon Street and Norman Street, is roughly 45 acres of conservation land. The area contains clearings, shrub areas, forest, wetlands, uplands and a major brook commonly referred to as Babbling Brook. A second, smaller brook flows from Cheever Avenue.

These two streams with a contributing drainage area of approximately 205 acres feed the wetlands in Steer Swamp. There are many paths and a couple of bridges spanning Babbling Brook.

Access to Steer Swamp is from Norman Street, Beacon Street, Stonybrook Road, Cheever Avenue, Barry Road and Blueberry Road. Black Joe's Pond, approximately a two-acre, spring-fed pond, borders the conservation land. This pond is used extensively for skating in the winter and some fishing in the summer. The terrain on the upland portions of Steer Swamp is generally steep with many ledge ridges and shallow to bedrock soils. The vegetation in this area is relatively clustered with second-growth scrub and brush, reflecting the fact that it is in an early successional stage from its previous use as pasture. The predominant tree species on the upland section are 10 to 20 feet in height and include: choke cherry, aspen, gray birch and sumac.

Lowland portions of the site are swamp and marshland with mostly muck soils. The lowland abounds in speckled alder, arrowwood and willow, and low and high bush blueberry, sassafras, bayberry, strawberries, and myriad native wildflowers. Flag Pond, which also borders this conservation land, is presently evolving from a shallow marsh to a wet meadow. This area supports a dense growth of herbaceous aquatic vegetation as well as cattails, phragmites, arrowheads and purple loosestrife.

The diversity in terrain and ecosystems (grassy areas, shrubby growth, forest, wetlands) and the high productivity of these areas make for excellent wildlife habitat, particularly for songbirds and waterfowl. On any particular day, mallards, geese, grouse, cardinals and many other songbirds can be observed.

Ware Pond

The 8.5 acre Ware Pond site includes a 3.8 acre pond as well as much of the land around the pond. The terrain surrounding the pond is nearly level with a gentle slope towards the pond. The southern and western edges of the pond are bordered by relatively poorly drained woodland that is vegetated by red maples, arrowhead, and alders. One side of the pond is bordered by an artificial "causeway" that separates it from a one acre shallow marsh. This marsh is vegetated mainly by jewelweed, cattails, and purple loosestrife. At the northeastern edge of the site are a pair of benches which provide a fine view of the pond and community gardens, called the Sevinor Community Garden. This garden contains 10 plots each measuring 10 foot by 20 foot for use by residents of the town. Access and parking are available from Marion Road and Marion Road Extension. This area is popular for ice skating in the winter. Just to the northwest of Ware Pond is Oliver's Pond. Water from Oliver's Pond flows into Ware's Pond through a stormwater pipe. There is currently no public access to Oliver's Pond.

U.S.D.A. suggestions for this area include the addition of food plants to improve the pond for waterfowl and removal of the pond lily roots to keep the pond open and slow the aging process. Three lots extend through wetlands to the pond's edge and conservation easements should be sought.

Wyman Woods

This conservation land, consisting of approximately 30 acres, is located at the end of Everett Paine Boulevard, and bordered by Gatchell Playground, Salem Harbor, West Shore Drive and, the old railroad right of way. The land was the first parcel to come under Conservation Commission control through Town Meeting action in March 1962. About half of the area was gifted to the town by the Wyman family and the family of Azor Orne Goodwin, who died in World War II.

The terrain in Wyman Woods is diverse, ranging from level, poorly drained, wooded swamp (between the playground and the old railroad right of way) to steep, rocky upland in the area extending to Salem Harbor. There are two distinct hills on the upland portion of the parcel where the soil is especially thin and outcrops are abundant.

One part of the site was formerly used by the Hawthorne Council of the Girl Scouts during the summer where they maintained a day camp called Camp Shore Lea. The camp has now been transformed into a nature center under the jurisdiction of the Rec., Park and Forestry Commission. This parcel has a trail system that is well maintained and is extensively used.

The soils in Wyman Woods consist of deep muck in the low-lying areas and shallow to bedrock and very fine loams on the uplands. The vegetation consists mainly of willow, red maple, highbush blueberry, and buttonbush in the low-lying areas and a mixture of hardwoods on the uplands including red and white oaks, red maple, hickory, black cherry, red cedar, and white ash.

The old railroad right of way, which runs along the end of Salem Harbor near Lafayette Street, separates a small section of Wyman Woods from the main area. This small section of woodlands, situated along the shore, is an open grassy area with beach for swimming and picnicking. The access to this area is very good since it can be reached by the railroad right of way from Lafayette Street or West Shore Drive, as well as through the Wyman Woods trails which are most easily reached by parking at the end of Everett Paine Boulevard.

B. Unprotected Parcels

Abbot Hall

This is the Town Hall for Marblehead, a large red brick Victorian structure readily visible from many parts of the town. It is bordered on two sides by large grass areas which are used for various festivities and which are enjoyed by many individuals in passive recreation. On the national historic list.

Alley Steps

A set of granite steps leading from Washington Street up to High Street or vice versa depending on which way you are going.

Alley Way

A public way with stairs connects Mechanic Street with Market Square where the Old Town House is located.

Barnegat Landing (See Grave's Beach)

Beacon Street

Approximately 5.7 acres of undeveloped property under the jurisdiction of the School Department at the corner of Beacon and Green Streets. It is completely vegetated, contains small wetlands on the eastern half of the site, small hills in the southwest and steep slopes to the north.

Bell School

6.6 acres of sloping terrain, much of which is used as off-street parking or service areas.

Black Rock Lane

This was a public way but a generous resident of the town donated a parcel of land abutting Steer Swamp in exchange for this way. It was agreed to maintain a view of the ocean on the east from this land which is now private. There is no public access onto this land.

Boston Yacht Club

This club as well as all other four yacht clubs are situated on Marblehead Harbor. These are private organizations and require membership for access to their facilities.

Brookhouse Drive

This road leads between Humphrey Street and Tedesco Street in the Clifton area and is divided by a series of grassed median strips. These are mowed and maintained by the town for aesthetics and recreation.

Captain John Glover Hooper Burial Site

Captain Hooper, his grandfather, "The Patriot", and other direct descendents of the Hooper family are buried here. A quiet, little plot of land off Harris Street where a visitor can absorb some of the local history and travel back in time. Directly across from the Harris Street cemetery.

Castle Rock

A small waterfront park off Ocean Avenue on Marblehead Neck with benches. It offers a magnificent view of the Atlantic Ocean and offshore sailing and fishing.

Children's Island (formerly Cat Island)

Children's Island, formerly Cat Island, is the home of the Marblehead/Swampscott YMCA summer day camp for children. The island is 1¼ miles by boat from the public landing at State Street and is under the jurisdiction of the City of Salem. The 29 acre island is long, narrow, and generally level. It is about 20-30 feet above sea level and covered with grass. There is a small

grove of pines at the southern end of the island. The original forest cover is said to have been destroyed by the British in 1776 in order to get a clearer view of Marblehead harbor. Attempts at planting trees and shrubs have not met with much success, and erosion of this exposed island is a serious problem.

The island's first recorded owner was Robert Catta (1635), who purchased the island for grazing land. Catta evolved into the name Cat. Many varied uses followed; in the 1700s the island was the site of a smallpox inoculation hospital; in the 1800s a hotel and resort; from 1870-1946 a sanatorium for crippled children; finally in 1956 the island was purchased by the YMCA for \$12,000 for use as a day camp. There are three buildings, two saltwater pools, a pier, and moorings used for the sailing program. There is no fresh water or electricity. The saltwater tank on the south side of the island is also used as a navigational aid. About 85% of the 480 children who participate each summer are from Marblehead. The rest are mostly from Swampscott and Salem.

On the southern end of Children's Island is a rocky, guano-covered headland separated from the main island except at low tide. It is locally known as Gull Island. In the summer it is a nesting area for numerous gulls and cormorants.

Clark Landing (aka State Street Landing)

The main public landing for the town, offering wonderful sea level views of Marblehead harbor. There are many park benches, some of which are under a pavilion. Flower gardens are maintained. Accessible public restrooms are available and the general area is preserved as part of the historic district. Parking is available. This landing is used by many lobstermen/fishermen for supplying and unloading their boats. It is likewise available to the general public for short term mooring.

Cliff Street Boatyard (formerly Cloutman's Boatyard)

This serves the public as a boat storage area and a launch facility. It is located off Cliff Street adjacent to the Marblehead Yacht Club.

Cloutman's Boatyard (See Cliff Street Boatyard)

Coffin School

One small grassy area, approximately 1.5 acres, currently used as athletic fields for elementary gym classes.

Commercial Street Landing

This landing is used by many lobstermen/fishermen for supplying and unloading their boats. It is likewise available to the general public for short term mooring. There is limited on-street parking.

Commercial Street Park

This little park is at the end of Commercial Street next to the landing. It has a park bench and a small grassed area. From this park, one can quietly view the harbor and its activities.

Corinthian Yacht Club

This club as well as all other four yacht clubs are situated on Marblehead Harbor. These are private organizations and require membership for access to their facilities.

Cove Lane

A public way off Kimball Street on Marblehead Neck. It offers a superb view looking across Marblehead harbor to Fort Sewall and beyond. The way has been grassed over but it remains a public way. There is a small, sandy beach at the end with access albeit difficult. There is a set of wooden stairs for public access to the beach at the end of the Lane.

Cressey Street Cemetery

This historic cemetery abuts the Green Street cemetery. Together, these cemeteries offer a very pleasant grassy area to rest and relax on benches under shade trees. Located on Cressey Street between Elm and Green Streets.

Danger Beach

Located at the end of Green Street overlooking Salem harbor. A set of stairs leads down to a small pebble beach set amidst large rock outcroppings. A secluded spot for swimming or picnicking. Parking is available along Green Street.

Des Moulin Lane

This lane is located off Ocean Avenue on Marblehead Neck. It offers a panoramic view of the open ocean to the east. The way is 30 feet in width in a straight line to low water. At the end of the paved lane is a path leading down to the rocky shore. Parking is available on Ocean Avenue.

Devereux Beach

Located on Ocean Avenue just before the causeway leading to Marblehead Neck, it is the major beach area for the town. There are lifeguards on duty from 8 AM to 4 PM from mid June through Labor Day and there are public rest rooms (the ones in the snack bar are accessible). Parking from

8 AM to 4 PM is free for Marblehead residents with town stickers and is available on a charge basis for others without stickers. Tucker's Beach, formerly the Usher Property, is the resident part of this area. There are picnic tables, benches, and pavilions for protected viewing. A seasonal snack bar provides light meals and beverages. This beach is the most popular recreation area in Marblehead. At the other end of the causeway at the beginning of the Neck is another part of Devereux beach. This beach is tucked away almost out of sight. It has a small, sandy beach and a couple of park benches. A great bike stop. Parking is available on Ocean Avenue.

Doliber Landing

This public landing is off Beacon Street just after Grave's Beach and faces over to Crowninshield Island. It is suitable for small boats only and has limited parking.

Dolphin Yacht Club

This club as well as all other four yacht clubs are situated on Marblehead Harbor. These are private organizations and require membership for access to their facilities.

Eastern Yacht Club

This club as well as all other four yacht clubs are situated on Marblehead Harbor. These are private organizations and require membership for access to their facilities.

Eveleth School

Approximately 3.5 acres of land, mostly developed with grass and shrubs. There is a small ball field in rear and parking to the left of the school. Mostly used for school activities. This property is adjacent to the Hobbs Playground. On-street parking and lot parking during non-school hours.

Fishing Point Lane

This lane is located off Ocean Avenue on Marblehead Neck. It offers a panoramic view of the open ocean to the east. The entrance is paved with brick and the remainder to the ocean is grassed to give the appearance of a private way. There used to be a set of stairs leading down to the beach. Parking is available on Ocean Avenue.

Fort Beach

Fort Beach is a small sandy and pebble beach off Front Street just before Fort Sewall. There are a lot of rock outcroppings with small tidal pools at low tide. Many people have pull moorings and store boats against the walls at this area. There is a small parking lot across Front Street.

Fort Beach Shanty Area

This area is in back of the parking lot referred to in the description of Fort Beach. It is public land where many fishing shanties are stored and where, if lucky, one can get a glimpse of the comings and goings of a lobsterman/fisherwoman.

Fuller Lane

This lane is located off Ocean Avenue on Marblehead Neck. It offers a panoramic view of the open ocean to the east. There is no entrance to the beach, it's blocked by a chain link fence. Parking is available on Ocean Avenue.

Gallison Avenue

Located off Atlantic Avenue this street brings one to the beach just south of Goldthwait Reservation. There is limited on-street parking.

Gas House Beach

Gas House Beach is a small neighborhood beach at the end of Gas House Lane off Orne Street. Good protection with pebble sand. Access to Gerry Island (privately owned but undeveloped) is possible at low tide. Limited on-street parking is available along Orne Street near Fountain Park.

Gatchell Green

Gatchell Green-at the junction of Lafayette Street and Maple Street-is a large grass area with trees and shrubs used as a playground. On-street parking.

Gatchell Playground

Gatchell Playground is a multi-use area at the intersection of West Shore Drive and Lafayette Street. The area has 2 lighted tennis courts and a regulation all weather basketball court which is lighted for men's and boy's summer basketball leagues. There are four regulation Little League fields which are used daily by school and youth baseball groups. In addition, there are benches, bleachers, a field house, accessible rest rooms and children's playground equipment. There is a dedicated parking area plus on-street parking on residential streets.

Gerry Island

This is a private island lying in Little Harbor just off Gas House Beach. It has flat terrain populated by scrub bushes and small trees and its entire coast is ledge. It is accessible on foot at low tide.

Gerry Playground

Gerry Playground-approximately seven acres off West Shore Drive between Dodge and Pitman Roads. Access is via Stramski Way. There are picnic tables and cookout grills for group and family picnics on the Salem Harbor frontage of the playground. There is a fenced-in children's play yard for younger children. There are 36 pram racks available by reservation for Town residents. There is a beach area which is suitable for swimming at high tide. The adult and children's sailing programs are based here utilizing 8 Widgeon Class sailboats and a whaler. Approximately 100 adults and 300 children participate for 10 weeks each summer. There are two parking areas for about 25 cars. The scenic beauty, lawns, trees, and shrubs, including a number of cultivated blueberry bushes, make this one of the more popular areas for passive family-oriented recreation.

Gerry School

Approximately 1.5 acres, steeply sloped with ledge and hot topped playground in front of school. Parking in rear.

Gingerbread Lane

This lane runs between Orne Street and Norman Street. It is a quiet little passageway with the aura of a little country lane.

Glover School

Approximately 4.3 acres, mostly trees and ledge. Limited use as a recreational area. There is a hot topped playground facility.

Grace Oliver Beach

Off Beacon Street at Crowninshield Road and facing Doliber Cove. One portion of the beach is public, less than an acre, used mainly by Town residents. Limited street parking on Beacon Street. Used for Recreation and Park swimming programs. Somewhat rocky but well protected and suitable for children.

Grace Oliver Landing

This area directly abuts Grace Oliver Beach but is private. Unofficially it is used by the public as part of the beach area.

Grave's Beach

A public boat launch facility with a small neighborhood beach. It is located at the end of Orne Street where Orne becomes Beacon Street. The view is across to **Gerry Island and the open ocean**. There is boat storage adjacent to this area and beyond the boat storage there is another lovely beach accessible from Beacon Street via Harding Lane.

Green Street Cemetery

This historic cemetery abuts Creesey cemetery and, together, they offer a very pleasant, grass area to rest and relax on benches under shade trees. Located on Creesey Street between Elm and Green Streets.

Gun House

Located on Elm Street across from the Gerry school. This is a 2 stall garage dating from 1808 and is used to house cannon from the Spanish American war. The cannon are used for various celebrations in town.

Harris Street Cemetery

This cemetery is directly opposite the Captain John Glover Hooper Burial Site on Harris Street and directly behind the Unitarian Universalist Church. It shelters the gravesites of many an old Marbleheader dating from the earliest times of our town.

Harvard Street

This is a public way off Harbor Avenue on Marblehead Neck. It offers a superb view looking across Marblehead harbor to Fort Sewall and beyond. There is a set of stairs leading to a small cobble stone beach. Parking is on Harvard Street.

Hobbs Playground

1.14 acres of land at the intersection of Clifton Avenue and Brook Road. The area has a regulation size Little League field and several pieces of playground equipment for younger children. It is mostly used as a neighborhood playground and is adjacent to Eveleth School. On-street parking plus parking in the Eveleth School lot during non-school hours.

King Hooper Mansion

This is an historically significant structure housing various artifacts and memorabilia dating from the last one to two centuries. It is privately owned and maintained but is open to the public on certain days of the week and for specific occasions.

Knight's Hill Road

This road runs between Elm Street and Pond Street near Redd's Pond. A small section is paved but most of the road is a narrow, hilly gravel path.

Lead Mills

This land formerly housed a lead mill which produced a form of lead for making paint. It is situated where the railroad right of way crosses Lafayette Street near the Marblehead/Salem town line. There are paths running through it but it is presently fenced off due to potential contamination.

Legg's Hill

This is a fairly large parcel of land off Legg's Hill Road. It sits astride the Forest River and Tedesco Pond and affords the highest view in the area. From its apex one can see far out into the Atlantic Ocean and across much of Marblehead and Salem including the inner part of Salem Harbor. This is private land which has been totally disturbed, there being little natural vegetation or beauty left on the property.

Lee Mansion

This is an historically significant structure housing various artifacts and memorabilia dating from the last one to two centuries. It is privately owned and maintained but is open to the public on certain days of the week and for specific occasions.

Lighthouse Lane

This way is off Follett Street and is part of the Chandler Hovey Park. It is 25 feet wide and runs down 366 feet to low water. Views are over to Children's Island and beyond.

Little Harbor (see Grave's Beach)

Lincoln Avenue

This undeveloped property is under the jurisdiction of the School Department. A long, narrow wooded site, of 6.5 acres, it is bordered to the west and southwest by a dense residential neighborhood. It abuts Reynolds Playground and contains wetlands with an intermittent stream as well as ledge in the higher elevations.

Lookout Court

This is a narrow way with stairs leading between Tucker Street and Gregory Street. The section of it which exits at Gregory Street is referred to as Prospect Alley. The upper portion, Lookout Court, offers a wonderful view of **Marblehead Harbor in front of the Boston Yacht Club**. This area is within the historic district.

Lovis Cove

Located on Front Street at the end of Selman Street, Lovis Cove is sandwiched between a small restaurant and a private residence. It is a cobble beach used by hardy swimmers and scuba divers. A set of stairs leads down to the beach. Some small boats and dinghys are moored offshore. On-street parking is available along Front Street if you can find it.

Maintenance Garage and Storage Area (at Devereux Beach)

The main garage and storage area is at the rear of the town parking area at the beach. Supplies and off-season equipment are stored outside. Equipment is repaired at the main garage during the winter months.

Marblehead Charter School

This is one of the charter schools authorized by the state and is located off Lime Street. It abuts Reynolds Playground and has a limited amount of open space associated to it.

Marblehead Yacht Club

This club as well as all other four yacht clubs are situated on Marblehead Harbor. These are private organizations and require membership for access to their facilities.

Mechanic Way (see Alley Way)

Middle School Land

Much of this land is now occupied by buildings, parking and playing fields. However, there is still a sizable portion of open land. In back of the school is a wetland surrounded by a small upland. This is used as a field laboratory to teach the children about wetlands and nature. It is accessible from the road which runs by the entrance to the football/track field. Beyond the playing fields and over toward Byors Road is another open area with some trails and, again, a small wetland. This was once known as Jermyn farm. Access is from either the school or from Byors Road.

Nahant Street

This is a public way on Marblehead Neck offering a lovely view of Marblehead Harbor, Fort Sewall and beyond. It is located off the eastern end of Ocean Avenue directly adjacent to the Corinthian Yacht Club. There is a small cobble stone beach.

Ocean Avenue Beach

This is a stretch of undeveloped, privately owned beach directly on Ocean Avenue on Marblehead Neck located just after crossing the causeway. It offers a panoramic view of the open ocean down to Boston. It is a good bike rest stop and there is short-term parking on Ocean Avenue and surrounding streets.

OKO's Building

This is an historically significant structure housing various artifacts and memorabilia dating from the last one to two centuries. It is privately owned and maintained but is open to the public on certain days of the week and for specific occasions.

Old Burial Hill Cemetery

This cemetery sits atop a high hill with sweeping views of much of the waterfront of Marblehead. Here lie at rest many of the earlier residents of Marblehead (including some Revolutionary War heroes) dating from the 1700's. A small pavilion on the apex of the hill offers visitors respite from the sun and a little protection from any wandering ghosts. Old Burial Hill is adjacent to Redd's Pond being bordered by Pond and Orne streets.

Old Town House

This is an historically significant structure housing various artifacts and memorabilia dating from the last one to two centuries. It is privately owned and maintained but is open to the public on certain days of the week and for specific occasions.

Powder House

A small round red brick structure with an unusual pointed roof located on Green Street, not far from Cressey Street. It was used to store gunpowder and munitions for Fort Sewall during the 1700's. It is a safe distance from the fort to protect the munitions from enemy shelling.

Oliver's Pond

This is a private pond which feeds into Ware Pond. It sits between May Street and Marion Road. There is no public access.

Orne Playground

This playground is located at Evans Road and West Shore Drive which has only been partially developed. There is a softball field which the girls' leagues have used and there is playground equipment on the Shepard Street side of the playground. A community garden exists on the Evans Road side. There is a single-family home occupied by a year-round resident caretaker.

Parker Lane

This public way is off Foster Street on Marblehead Neck. It looks across the inner portion of Marblehead Harbor with views of downtown and Abbot Hall. Stairs lead to a beach and a park bench. There is parking for two cars.

Parker's Boatyard

This is a public boat launch ramp with a small crane and storage facility on Marblehead Harbor located off Redstone Lane.

Peabody Avenue

This is a public way located off Harbor Avenue on Marblehead Neck. There is a lovely view looking across Marblehead Harbor to Fort Sewall and downtown. There is a small grass area at the end of this way for picnicking and relaxing. This is a good bike stop. There is no car parking.

Point O'Rocks Lane

This is a public way off Follett Street at the end of Marblehead Neck. There is a marvelous view of Salem Sound, Children's, Misery and Bakers islands and the coast up to Gloucester.

Preston Beach

This is a quasi-public beach on the ocean near Blodgett Park on the Marblehead/Swampscott town line. It is owned and managed by the Clifton Improvement Association. There is paid parking across the street during the summer.

Railroad Right of Way-The Path

The former Boston and Maine Railroad right of way is owned outright by the town and is under the jurisdiction of the Water & Sewer Department and Municipal Electric Light Department. This greenway, with rails and ties long since removed, has an average width of 40 feet throughout its length of almost 4.5 miles. The central part of the road bed has a well compacted path. Brush is trimmed and the path is maintained using gravel and stone dust. This path connects three conservation areas: Ware Pond, Hawthorn Pond and Wyman Woods. It ends at the Marblehead/Salem town line, a few hundred feet from a fourth conservation area, Forest River. There is considerable frontage along the Sevinor school land in back of the post office and along the private open land belonging to Tower School.

The right-of-way is a heavily used, valuable resource for the entire town. Uses of the right-of way include walking, jogging, bicycling, horseback riding, cross country skiing, and nature study. The Recreation, Park and Forestry Commission, and the Marblehead Environmental Coalition are working with the Metropolitan Area Planning Council on an area-wide rails to trails program through the National Rails to Trails Conservancy. It is anticipated that the connection to Salem and Swampscott will eventually be re-established. Work is presently underway on the Salem connector which has been cleared and regraded to Loring Avenue near Salem State College.

[A description of the work of the Marblehead Bicycle & Trails Committee will be added before final publication.]

Ram Island

This is approximately a 5 acre island about a half mile off the shore of Marblehead near the Marblehead/Swampscott town line. It is legally within the corporate limits of Salem. A 10 year conservation restriction was granted by the owners in 1976 and it is "self extending" every 10 years unless the owners give notice to the contrary. A craggy chunk of grasses and perennial herbs, it is the home of thousands of gulls and is left in its natural state. Access by small boat is possible but difficult.

Redd's Pond

This pond is adjacent to Pond Street and just below the Old Burial Hill. A very picturesque pond in the Barnegat section of Town with depths of from 3 to 11 feet. It is used for skating in the winter months and model sailboat races in the summer months. Wild water fowl frequent the pond. There are benches for resting and relaxing and observing the water fowl.

Red Steps Beach

This is a small piece of land at the end of Chestnut Street. It has three park benches for viewing the south end of Marblehead harbor, the causeway and the open ocean beyond. A set of stairs, painted red, leads down to rocks jutting up from the harbor. A few dinghys are moored off these rocks. At low tide one can swim from a small beach. On-site parking is available.

Reynolds Playground

5.45 acres of active and passive recreation area located off Green Street and Pond Street. There are two regulation softball fields which are used for men's and women's softball leagues. One of the fields is lighted for evening play. In the fall, a regulation soccer field is laid out across the outfields of the softball fields. There is a fieldhouse with public restrooms (not accessible to the disabled) and equipment storage, playground equipment for younger children, benches, picnic tables, and a small pavilion providing shade. There is also a volleyball area, basketball court, and funnel ball court. This is the proposed site of the Think Rink recreation facility for tennis and skating. Shuffleboard courts and horseshoe pits are planned for nearby senior citizens to use. There is parking for about 25 cars off Green Street.

Riverhead Beach

This beach is located on Ocean Avenue across from Devereux Beach. It has a beach area on the harbor, but because of extensive tidal flats it is used as a beach only by a few swimmers at high tide although it is a favorite spot for wind surfing. The land area provides additional parking for people using Devereux Beach. There is an excellent free public boat ramp for use at high tide. This area has also been used for carnivals and circuses and in the winter serves as a storage area for floats in the winter months.

Salem Harbor

This refers to the Marblehead side of Salem Harbor, which looks across to Salem. Marblehead residents maintain a number of moorings in this harbor and there is public access and parking off

the Village Street pier. There presently is also a public floating restaurant moored out in the harbor with access from the pier.

Senior High School

Approximately 2.0 acres for recreational use. In 1978, 4 tennis courts and 1 softball field were built. The land behind the school could be used for practice athletic fields.

Sevinor Land (See Sorosis Farm)

Sorosis Farm (aka Sevinor Land)

A large old farmhouse at the northern entrance serves as the Administration building of the School Department. Stone foundations of abandoned Sorosis Farm buildings survive in several locations on the hilly portion of the site. These are the remnants of Sorosis Farms, a group of farms owned in the early part of this century by Alexander E. Little, president of the Sorosis Shoe Company. Factory workers were provided various poultry products from the farms.

This partially undeveloped property is under the jurisdiction of the School Department. The site contains just over 33 acres, bounded by Humphrey and Pleasant Streets to the north and the railroad right of way to the south. It is characterized by a series of abrupt, stone ridges divided by valleys, except in its southern portion, which drops some 36 feet in elevation to flatter terrain and which now has four soccer fields. The Marblehead Community Center which houses the Council on Aging and the Recreation, Park and Forestry Commission is located on about two acres of this property.

Star of the Sea Cemetery

This cemetery serves the church, Our Lady, Star of the Sea, but is actually owned by the diocese of Massachusetts and administered by St. Mary's Church in Salem. It is located on Lafayette Street almost across from St. Andrew's Church. It abuts, in part, the Forest River conservation land.

State Street Landing

See Clark Landing

Stramski Playground

See Gerry Playground.

Tedesco Country Club

The clubhouse and part of the fairways of this private club lie partly in Marblehead with the remainder being in Salem and Swampscott. In the winter the club allows a portion of its land to be used for cross country skiing and down hill sliding.

Thompson's Meadow

This meadow comprises 113 acres of undeveloped land, both upland and wetland. It is located in Salem but belongs to Marblehead. This parcel starts on Swampscott Road (it forms an estuarine area), sits astride Loring Avenue and runs into the Forest River area. It was formerly used by Marblehead as a source of town water.

Tinker's Island

This private island lies within the corporate limits of Salem. It has seasonal cottages and there is no public access.

Tower School Land

Tower school is located on West Shore Drive, about 1/2 mile from the intersection with Lafayette Street. Behind the school are playing fields and wetlands belonging to the school. These wetlands form a hydraulic connection to Hawthorn Pond and the stream which flows out to Wyman Cove in Salem Harbor. The railroad right of way leads past these lands which contribute to the natural setting of the way.

Transfer Station

Health Department Land-16 acres of land once used as a landfill, then as an incinerator site, it is now a recycling area with a transfer station for household and commercial refuse and a dump for brush and leaves. At least two thirds of this area is incinerator landfill.

Tucker's Wharf

This public wharf is adjacent to Clark Landing and offers both a launch (for small boats) and mooring facilities.

Village Street Pier and Recreation Area

A public landing on Salem Harbor is available at the end of Village Street. Situated across from the landing is 0.9 acres adjacent to Richard Rockett Landing and Pier. This area is used for parking by people using the boating facilities on Salem Harbor. There is also a fee-for-service launch and a building, which is used to store equipment and supplies.

Waterside Cemetery

This cemetery is located on West Shore Drive and serves the town of Marblehead. The land runs down to Salem harbor and offers some beautiful views for reflection and meditation.

Wye Pond

The pond is eutrophying and is now an isolated wetland containing surface water only at wet times of the year. Frogs can be heard here in the spring and it may serve as a breeding ground for certain amphibians. Wye pond is located on the railroad right of way between Maverick Street and Village Street.

Ways Elm/High Streets

There are two public ways running between Elm and High Streets. They are located between # 20 and #24 High Street and between # 32 and #34 High Street. As is the case in much of the downtown in Marblehead, they are sandwiched between houses but are open for public use.

C. Public and Nonprofit Parcels**Section 6. Community Goals****A. Description of Process**

The Marblehead Open Space and Recreation Plan Committee members developed the goals listed in Section 8 by analyzing information gathered through the town-wide survey, the survey/interviews of identified groups and organizations, the public hearing, and committee meetings.

The process began in January 1998 with the formation of the Open Space and Recreation Study Committee. The committee held regularly scheduled meetings through September of 1998. At these meetings the committee divided the work by assigning specific sections to individual members or teams of members. The committee also devised several ways to determine and implement methods to gain public input into the plan. After the information was collected, organized and analyzed the information was compiled into a draft plan that was widely distributed throughout the town for comment. A final public hearing was held and changes made as a result of the hearing and public comments were incorporated into the final plan.

The Marblehead Open Space and Recreation Plan relates to the Metropolitan Area Planning Council's MetroGreen in that the Plan catalogs all of the town's open spaces and other lands that supply the community with clean water, flood protection, recreation, natural beauty and a sense of local character. The Plan meets all of the MetroGreen open space goals and objectives.

B. Statement of Open Space

The citizens of Marblehead appear to have a common vision for the Town's open spaces. The same views often reappeared in all the survey results, interviews meetings and forums. The citizens expressed overwhelmingly a desire for cleaner better maintained park system, expansion of open land, and the protection and enhancement of existing open space and recreation lands. The overall vision for the town also includes increased access to the waterfront, expansion of recreational programs, a capital improvements program for equipment and maintenance, increase universal access to playgrounds and rest rooms, and promotion of recreational use of the waterfront. The citizens and organizations alike recognize the need to educate the citizens on the importance of conservation and wetland issues.

Section 7. Analysis of Needs

The character of Marblehead owes much to its natural, scenic, environmental, and cultural surroundings, which have been described in preceding sections. In the regional context, Marblehead remains a uniquely situated and historic town. Protecting its assets is a priority for town residents who responded in various ways to The Committee.

Overall, data was collected from approximately 225 citizen surveys, 20 town department and special interest group surveys, approximately 160 dog owners' surveys, and a forum and public hearing on open space and recreation held on April 7, 1998. Three meetings of The Committee were devoted to

brainstorming on two issues: the attributes of current open space (protected/unprotected status; use/potential use; condition; availability, etc.), and needs of the town. The Committee also reviewed the *1997 Marblehead Capital Plan's* prioritized list of community needs for additional data. From these sources of information The Committee has determined the resource protection needs, community needs, and management of needs and potential change of use for the town's open space and recreational assets.

A) Summary of Resource Protection Needs:

Resource protection needs exist at both the regional and local levels.

At the regional level, areas for protection include water resources, land usage, cultural heritage, and "green" infrastructure. Locally, similar resources need protection in order to maintain Marblehead's quality of life, uniqueness within the regional context, and to protect and enhance the town's character and identity. The local resources needing protection include water, land, vegetation, and wildlife.

Regional resource protection needs:

1. Water: A multi-community approach to conserve water resources and to protect its quality is needed to forestall wasteful use and pollution that have detrimental effects on the environment, ecology, and recreation in the region.

Many North Shore municipalities share the common resources of tidal shoreline, wetlands, inland ponds, streams, rivers, and groundwater. Marblehead alone, has 14.2 miles of coastal waters and two of its water resources, Forest River Conservation area and Thompson Meadow, originate in Salem. Salem Sound 2000 is a group dedicated to raising awareness of water quality and provides a vehicle for action. Their work in Salem Harbor on the effects of the Salem power plant and their interest in Babbling Brook in Marblehead's Steer Swamp are examples of much needed regional resource protection. In its report entitled, *Riverhead Beach Preliminary Feasibility Study* (mentioned in Section 6-C *Surface Water* in this plan), the Gulf of Maine Research Center, Inc. documented numerous discharges and non-point source pollution inputs, which occur from variety of sources such as street run-off, pesticides, animal waste, and boat discharges. In addition, coastal North Shore towns have many recreational properties, which attract boaters, swimmers, sunbathers, divers, and other water related activities. Other cultural and educational activities attract many more boaters from the region to these properties such as the YMCA Camp on Children's Island or Marblehead Harbor during the Fourth of July fireworks and musical performances at Crocker Park.

2. Land: Wise land use practices must be kept at the forefront as economic, commercial, and residential endeavors challenge current zoning and planning regulations within this built-up region.

For instance, residents of the West Shore have a direct view of the smokestacks of Salem Power Plant across the harbor. Other scenic vistas, afforded by Marblehead's peninsular location, could be lost due to unwise or inappropriate land use. One small threat is the installation of communication towers and satellite dishes. Also, as development occurs, water access may be lost. Using the Massachusetts Coastal Zone Management policy is one step to minimize this. Not unlike other towns in the region, Marblehead is almost completely developed with very few privately owned large parcels of land remaining undeveloped. According to Section 1 - *Plan Summary*, The Plan looks for ways to increase the recreational and conservation value of existing town land, and for other means of protecting the natural resources of the town.

3. Cultural Heritage: Maintaining the rich cultural heritage through preservation and conservation practices is needed to preclude over-development and loss of the North Shore's regional character.

For instance, across the harbor is Salem where its diverse history is celebrated throughout the town. The Peabody Essex Museum houses maritime artifacts from the China Trade, the House of Seven Gables portrays the literary history of Nathaniel Hawthorne, and the Witch Trials Memorial commemorates the events in 1692. The presence of the National Park Service not only draws many tourists to their Visitor Center but also provides the city with technical, educational, and financial assistance for conservation and preservation projects. Other agencies such as Massachusetts Historical Commission and Historic Massachusetts are available for technical guidance about cultural landscapes.

4. Green Infrastructure: The region has a small but impressive "green" infrastructure in the form of abandoned railroad beds, which have the potential for greenway development.

There is great potential for connecting neighboring towns of Swampscott, Danvers, and Salem to Marblehead's railroad right-of-way (described in Section 5-A *Protected Parcels* - AKA The Path). Not only would this regional greenway benefit residents of many towns in the form of recreation, but developing these links as green space would also help mitigate some of the effects of disappearing open landscape through conservation, environmental, and ecological measures. Greenway systems throughout these towns would also provide a much-needed link to historic,

cultural, and educational opportunities such as those mentioned in Salem. Finally, a greenway network provides an alternative means for transportation.

Local resource protection needs:

1. Water

Since Marblehead is not only surrounded by sea water but also has several inland fresh water features, solutions are needed for protection of water quality as well as prevention of flooding and erosion. These measures include:

- re-routing of stormwater drains away from salt-water marshes,
- improvements to town-wide stormwater systems to prevent flooding and to minimize fecal coliform counts in stormwater drains and at outfall locations,
- assessing water quality using Best Management Practices,
- assessing the town harbors' water quality,
- preventing erosion of coastal banks, and
- decreasing nutrient load in freshwater bodies that are associated with urbanization.

2. Land

Very few large parcels of privately owned land remain undeveloped. Maintaining, preserving, and acquiring land is a priority to keep Marblehead's character. These remaining open spaces (publicly or privately owned) include school properties, water accesses such as Gerry Island, Grave's Beach, Commercial St. landing, and other right-of-ways, Tedesco Country Club, the Lead Mills, Transfer Station, and Star of the Sea School and Cemetery to name a few (refer to Section 5 -*Unprotected Parcels*). Some of these sites have coastal erosion issues to contend with. Opportunities to forestall more development include:

- expanding open space and waterfront access
- improving water front access
- identifying, protecting, and preserving remaining undeveloped open space
- protecting and enhancing existing open space
- assessing certain parcels to determine if environmental problems exist

3. Vegetation

Occurrences in the landscape have sent signals that the eco-systems are in danger. With the exception of the Street Tree Planting Program, town-wide landscape planning on public owned properties are minimal. Hence, native vegetation has been losing ground to invasive exotic species. For instance, Norway maples have invaded Seaside Park. Exotics such as Lythrum salicaria, or purple loosestrife, and Polygonum cuspidatum, or Japanese knotweed, have invaded Ware Pond; Phragmites communis thrives on the edge of Goldthwaite Reservation. Intervention is needed to return certain fragile areas to their former natural state. Some solutions may be:

- controlling noxious weeds through environmentally safe and appropriate methods,
- reducing pesticide usage,
- preserving the salt water marsh eco-systems, and
- providing food and cover for wildlife.

4. Wildlife

The Massachusetts Natural Heritage and Endangered Species Program does not list any species for Marblehead. However, there is an island called Tinkers Island located close off the coast of Marblehead but which belongs to Salem. There are species listed on the Program for this island. Marblehead is located along the Atlantic Flyway, which brings the migration of waterfowl, waders, and songbirds in summer and in winter. In some case, these birds are passing through like the spring and fall migration of the warbler. Some species return from their southern range to winter; such as eiders, scoters, and glossy ibis; or return from their northern range to summer; such as the great blue, green, and black cap night herons. To ensure successful annual migration, open space is required. To sustain wildlife and animal populations, Marblehead should assess the:

- availability of animal and wildlife corridors for habitat, migration, specie interchange, and foraging,
- impact of passive and active recreation on certain open spaces that support wildlife, and
- effect of water quality (pollution, invasive plant material, proper tidal flow) on wildlife.

B) Summary of Community Needs

The community needs of Marblehead residents reflect their appreciation of, and deep concern about, the condition and protection of the open spaces and recreational facilities. An analysis of community input from the sources listed below reveal the town's people may be prepared to take a more active stance than in the past to implement protection and conservation measures to insure their preservation. This trend can be

seen in the results of analysis of the objective data, but it becomes most apparent when reviewing the subjective comments collected from the surveys and public forums.

As outlined above, the community's needs have been analyzed from the following sources:

- An Open Space Forum and Public Hearing - The Committee invited the community to attend two forums and public hearings held on Tuesday April 7, 1998 and Wednesday, March 3, 1999 at the Marblehead Community Center. Minutes from these hearings and results of public input can be found in Appendix A.
- A Town Departments and Town Organizations Survey - The Committee distributed a survey to town departments, town organizations and other groups that have and interest in the open spaces and recreation area. Members of The Committee conducted interviews with representatives of these groups. Analysis and results of this survey and interviews are included in Appendix A.
- An Individual Citizens Survey- The Committee distributed the survey to the general public at the May annual town meeting. Surveys were available at the Mary Alley Municipal building, Marblehead Community Center, YMCA, and Abbott Library. In addition, Ali Beckett and The Jefferson Forum wrote a cover letter to attach to the survey that they distributed to teachers throughout the high school. A copy of this survey and analysis of the results are included in Appendix A.
- A Dog Owners Survey - A survey was distributed to all dog owners as part of the dog-licensing program. This survey and an analysis of the information obtained are in Appendix A.
- A Review of the 1997 Marblehead Capital Plan - As part of the Capital plan submitted to the town, a prioritized list of community needs was developed. This list and the raw data used to determine it was review as part of the question regarding acquisition of open space.
- Open Space and Recreation Plan Study Group discussion - Three meetings of The Committee were devoted to brainstorming on the issues of open space status and town needs as revealed in sections 2 through 6 of the Plan.

The most important community needs as interpreted from the above sources are listed below. No attempt has been made to prioritize these needs, however each category was strongly supported by all sectors of the population queried.

Maintenance

Since public lands are within a compact, densely populated town, maintenance is constantly needed on our open spaces and recreational sites particularly the more heavily used facilities. The community reflected a strong need to improve the overall maintenance and cleanliness of these areas. The top four public lands most used by the respondents to the town survey are Devereaux Beach, Fort Sewell, Crocker Park and the railroad right-of-way or The Path.

Analysis of survey results showed 47% of the town residents were satisfied with places for children to play, 54 % of residents were satisfied with the places for adults to recreate and 60% of the respondents said that the Conservation lands in Marblehead met their needs. Comments however, indicated that maintenance and clean up were an issue in 43% of all comments analyzed. Specifically, a range of maintenance procedures (more/better/different) were identified:

- Massive clean-up everywhere
- Covered trash receptacles needed everywhere including dog receptacles since pet waste is a problem
- Conservation Land "Maintenance" program to minimize exotic intrusion and to protect from inappropriate recreational use
- Vandalism deterrents
- Maintain right-of-way, or The Path, and make improvements for better use as a bicycle path, wildlife corridor,
- Change management authority of The Path (the right-of-way)
- Restoration of the Shore Lea Nature Center and its associated trail network
- Restore burned building at Gatchell's
- "Adopt an area" program for private groups for added maintenance and oversight

Acquisition, Preservation and Protection

Acquisition of additional open space and water access, and preservation and protection of existing open spaces and conservation land were among the strongest community needs. This need was expressed in a variety of ways when questions on the surveys asked respondents:

- to rank the 5 public recreation facilities that were needed in town:
results showed the following five highest ranked public recreation facilities that were needed in town:

1. coastal access;
 2. conservation areas;
 3. neighborhood parks;
 4. bike paths;
 5. children's play areas
- if Marblehead has enough conservation land:
62% of respondents said Marblehead did not have enough conservation land
 - how important is it for the town to acquire and preserve conservation land:
94% indicated it was important for the town to acquire and preserve conservation land
 - to select whether it was best for the town to use its resources to acquire additional open space, maintain existing conservation land, or address acquisition and maintenance both equally:
94% of respondents said that the town should divide its resources equally between acquisition and maintenance
 - what would they be willing to do to preserve open space:
66% said they would donate money to buy land; 86% said they would vote to override proposition 2 ½ to set money aside for acquisition; and 64% said they would grant the town a conservation easement on their land

As part of this last question, there were some suggestions offered as to particular parcels of interest for acquisition:

- Acquire parcels that abut, are adjacent to, adjoining, or contiguous to existing open space or conservation lands
- Acquire access to water
- Acquire parcels that added "wooded" areas to the town's landscape
- Identify acquirable parcels for future purchase (parcels mentioned in the town survey were: Gerry Island, Beacon Street site, land off Leggs Hill, property next to Stramski park, Lead Mills, Mackey property)
- Turn unused school lands over to the Conservation Commission
- Acquire parcels that would expand the 'Community Garden'
- Some town organizations offered solutions to financial constraints and funding issues needed to maintain or acquire lands such as: Intermodal Transportation Grant, and Community Preservation Act (C.P.A. # S1715) funds generated from the deeds excise tax to address core community preservation concerns.

Suggestions regarding preservation and protection of open spaces included:

- Preserve/Protect open space for natural habitat and wildlife
- Preserve/Protect wetlands by firm regulation to preserve
- Preserve/Protect some lands 'dedicated' to nature and wildlife
- Preserve/Protect public lands through public schools establishing stewardship projects similar to the one Linda Fuller has ongoing at Coffin School
- Protect open spaces and recreation areas from pollution, and unrestrained and unsupervised pesticide and herbicidal use
- Protect public spaces by addressing and solving the pet waste problem

Public information and education

Results from the town surveys indicated that there is a need for more public awareness of open spaces and historic places.

One effort in progress to address this need is a volunteer group, called the Book Project, that is writing a guide, entitled *Discovering Marblehead: Open Spaces, Historic Places*. Feedback from town residents about

its early draft is enthusiastic. They praised and encourage the effort, and gently criticized its content, but overall indicated that the book is a much-needed educational resource for residents and visitors alike. At the 1998 Marblehead Festival of The Arts, an exhibit of maps of open spaces (to be included in the book), were displayed. Residents were eager to see their favorite recreational site or their own residence in context of the

town's resources via aerial photographs and illustrated street maps.

Answers to the survey questions regarding awareness of open spaces and recreational programs indicated that the respondents are sufficiently aware of the many areas and opportunities for recreation in

Marblehead. When asked “Are you aware of the conservation lands in Marblehead?” and “Are you aware of the recreation programs offered by the Parks, Recreation, and Forestry Department?” 86% responded yes to both of these questions. When the comments were analyzed, however, it became apparent that the community had many questions regarding Marblehead’s open spaces. The community would like to be adequately informed and kept abreast of these following issues:

- Overall town planning for maintenance and development
- Management authority decisions (clear cutting of the railroad right-of-way, dogs on conservation land)
- Best use and allowed activities
- Expand education programs by advertising on a regular basis
- Location and mapping of open spaces and their points of interest (signage and maps identifying properties)
- Historical interest and historical use
- Wildlife and vegetation present and in need of protection on our open space
- Potential parcels of interest to the Conservation Commission or the Town Planner that would increase our open space resources. The public did not feel they were adequately informed of current and potential open space use.
- Unique environments and their special needs for protection (vernal pool, salt marsh, inland wetlands)
- Allowed multiple use of athletic fields

Development and Improvement

Developing and improving the existing open spaces and recreational areas and opportunities is an often expressed community need. According to the individual survey, general recreation and enjoyment (defined as

relaxing, enjoying the view, peace and quiet, passive recreation) is the main reason town residents use open space and recreational areas. Walking, jogging, and running tied as the second reason, followed by playing with their children. (Individual athletic groups that responded to the organizational survey indicated that practice of their sport was the most important use of the facility.) The groups perceived as needing the most recreational opportunities were the middle school aged children followed by elementary then high school aged children. Pre-schoolers and senior citizens required the least amount of open space and outdoors recreational areas according to the responses. Opportunities identified for fulfilling this community need were:

- Develop Sevinor site for recreational activities
- Develop the Shore Lea Nature Center
- Improvements to The Path (railroad right-of-way) to enhance its use as a recreational site (possible change of management authority)
- Linkage of recreation sites with adjacent towns
- Improved playground equipment town wide
- Find a site for dog recreation in conjunction with increased attention to compliance with leash and scooper laws
- more bikeways
- more public access to water

C) Management of Needs, Potential Change of Use

Many challenges exist in order to better manage the needs and potential changes of use of Marblehead’s open spaces and recreational resources. These challenges cross over the jurisdiction of several town entities.

In general, there is a need for better partnerships among the various departments, legal counsel and finance committee in order to better serve the town residents, who have expressed, through surveys and open town forums, the need to preserve, protect, and expand the town’s open space and recreational needs. To that end, an advocacy group, such as a Standing Committee on Open Space, could provide the town administrators with continuing input and support for open space and recreational issues and initiatives. Also, the town should have an open space management plan on a site by site basis to address on going maintenance needs.

1.Cooperation among various departments (Parks, Recreation, and Forestry; Conservation Commission; Water and Sewer Department; Municipal Light Department; and School Department) may expedite some of the issues mentioned in the surveys and at the town forums:

- inconsistent maintenance and clean-up of public spaces, particularly playground areas
- better communication between town commissions
- overall improvement of railroad right-of-way; consider supporting its expansion into Swampscott
- revise memorial plan for benches and trees
- consider rock climbing as a new recreational activity
- tie in Devereaux and Riverhead Beaches to Causeway redesign
- change or increase use of some open spaces such as The Path (railroad right-of-way), as a plant trail; school properties into ball fields

2. Legal/Financial (Town Counsel & Finance Committee): Survey results indicate also that more people would donate money to a fund set aside to acquire open space or would approve an override of proposition 2 1/2 than they would donate or sell at a reduced rate any property to the town. Residents would also consider conservation easements as another means to secure open space. Other issues that need legal or financial consultation include:

- annual perambulation of rights-of-way; identification and verification
- identify conservation easements
- stronger enforcement of by-laws: legal issues, management authority, and stronger protection options for Conservation Commission
- landscaping and swimming pool bylaws need to be written: fines for dumping on public land should be increased
- zoning: should some lands be re-zoned for protection?
- P & P for acquisition of open spaces (need to identify and pursue possibilities including oceanfront; also landbank)
- capital improvement program

3. Overall space management begins with an analysis of each site, or a master plan, not unlike those on hand for the school properties conducted by the Conway School of Landscape Architecture in 1997. Using this approach, a better understanding of the needs of various sites could be assessed and planned for over several years according to those priorities. For instance, if these sites were analyzed, they could be managed based on some of the following considerations:

- active versus passive recreation requires different maintenance programs
- climatic issues (erosion, wind damage) may bear harder on seaside open space sites versus inland wooded areas (downed limbs, flooding)
- seasonal flooding may close down athletic fields or the right-of-way
- soil composition may preclude or enhance certain types of recreation

4. Finally, land resources are the responsibility of several boards, departments, and commissions. To advocate for land use issues, a group of interested people representing the town departments, citizen groups, and town residents, is needed that would symbolize Marblehead's continued commitment to wise and practical land use planning. The town of Arlington has such a group, called the "Standing Committee on Open Space," whose committee members are appointed by the Town Manager, the chief administrative officer. For instance, the Marblehead group could create a master plan for The Path (railroad right-of-way) particularly in light of other regional and national greenway initiatives created from railroad beds. To that end, it's worth noting that the President's (Reagan) Commission in 1986 described a vision for a living network of greenways in its study, *Americans Outdoors: The Legacy, the Challenge, With Case Studies*, by stating: "Imagine walking out your front door, getting on a bicycle, a horse, or a trail bike, or simply donning a backpack and within minutes of your home, setting off along a long continuous network of recreation corridors which could lead across the country."

Section 8. Goals and Objectives

The goals and objectives listed below are a result of review and analysis of:

- the town's open space survey results
- Interviews with user groups*
- Open Space Committee public hearings
- Discussions and meetings with Park & Recreation and Conservation Commission

The 10 goals listed below appear in no particular order.

Goal 1 Strengthen Environmental Protection

Goal 2 Better Land Management

Goal 3 Acquire Strategic Land Parcels

Goal 4 Develop Public Partnerships

Goal 5 Expand recreational facilities and programs

Goal 6 Improve overall parks and playground maintenance system

- Goal 7** Create a Capital Improvement Program
- Goal 8** Publicize and promote usage of parks, facilities and program
- Goal 9** Improve access to parks, playgrounds and restrooms for the disabled
- Goal 10** Promote recreational use of the waterfront

Goal 1 Strengthen Environmental Protection

Objectives: Protect and enhance local coastal and inland water resources

1. Acquire key wetland and buffer properties
2. Eliminate and reduce pollution sources
3. Improve education on pollution prevention

Goal 2 Better Land Management

Objectives: Effectively Protect and Preserve Public Open Spaces within The Town

1. Identify key properties for acquisition

Goal 3 Acquire Strategic Land Parcels

Objectives: Expand protected open space and waterfront access with The Town

1. Identify waterfront access

Goal 4 Develop Public Partnerships

Objectives: Educate the citizens of Marblehead on the importance of conservation and wetland issues and encourage participation in protecting the town's natural resources

1. Improve education of conservation and wetlands

Goal 5 Expand recreational facilities and programs

Objectives:

1. Provide more playing fields and playground equipment
2. Study recreation land expansion possibilities

Goal 6 Improve overall parks and playground maintenance system

Objectives:

1. Examine maintenance system

Goal 7 Create a Capital Improvement Program

Objectives:

1. Organize improvements to maximize availability of private/public funds

Goal 8 Publicize and promote usage of parks, facilities and program

Objectives:

1. Increase community awareness of town lands and programs

Goal 9 Increase universal access to parks, playgrounds and restrooms

Objectives:

1. Update facilities to comply with ADA standards

Goal 10 Promote recreational use of the waterfront

Objectives:

1. Identify key parcels of waterfront land
2. Increase awareness of existing waterfront parcels

Section 9. Five-year Action Plan

Following are the open space and recreation goals, objectives and actions between 1999 and 2003. Under each goal is listed the objective and a series of actions. The years in which each action will be taken are given in parentheses.

Goal 1: Strengthen Environmental Protection

Objective: To Protect and Enhance Local Coastal and Inland Water Resources

Action 1a: Obtain Funding for Conservation Administrator (1999, 2000)

Priority: Urgent

Responsibility: Conservation Commission

Work with appropriate town departments to write job description, obtain necessary approvals, and prepare article for town warrant and meeting in May 1999.

Action 1b: Identify Source(s) of Pollution at Wyman Cove (1999)

Priority: Urgent

Responsibility: Conservation Commission

Work with the local Finance Committee and Board of Selectmen to insure funds are allocated at town meeting May 1999 to allow us to apply for reimbursement grant from the state. Investigate alternate funding sources that would result in earlier completion.

Action 1c: Prevent New Direct Discharges of Stormwater into Resource Areas and Reduce Contamination from Existing Sources of Runoff Including Transfer Station (1999-2001).

Priority: Urgent

Responsibility: Conservation Commission

Work with the local Planning Board and town engineer to implement State stormwater guidelines on all future construction (residential and commercial) and to identify existing stormwater problems.

Action 1d: Update Town Conservation Bylaw and Issue Regulations (2000-2001)

Priority: Necessary

Responsibility: Conservation Commission

Review existing Bylaw using MACC model as a guide. Write regulations which fulfill the directives of the revised Bylaw and which are pertinent to the local environmental conditions of Marblehead.

Action 1e: Evaluate results from 1998 Pond Study and make recommendations for better pond management practices

Priority:

Responsibility: Conservation Commission

Identify ponds most threatened by nutrient sources;

Minimize eutrophication

Goal 2: Better Land Management

Objective: To Effectively Protect and Preserve Public Open Spaces Within the Town

Action 2a: Develop an “Adopt a Space” Program for Maintenance of Conservation Lands (1999-2001)

Priority: Urgent

Responsibility: Conservation Commission

Work with the Marblehead Environmental Coalition to sponsor spring and fall clean-ups and path maintenance of Steer Swamp. Work with the Tower and Middle schools to do the same in the Hawthorn Pond area. Ask the Park & Rec. Commission to support these efforts.

Action 2b: Restore Babbling Brook (1999-2000)

Priority: Urgent

Responsibility: Conservation Commission

Continue to work with Salem Sound 2000 and the Marblehead Charter School to maintain and expand the bank restoration started in the fall of 1997. Work with the town engineer to (1) insure the planned removal of a culvert in Babbling Brook results in a minimum of disturbance to the area; and (2) to define a plan for future cleaning of the brook which does not destroy the banks and existing vegetation.

Action 2c: Control non-native species within town Ponds (1999-2001)

Priority: Urgent

Responsibility: Conservation Commission

Continue to support the Save the Ponds committee to remove the purple loosestrife and phragmites which have invaded Ware Pond. This will serve as a test site for other pond remediation. Pursue a similar effort with Flag Pond. Work with the Park and Rec. Commission on efforts to improve the water quality at Redd’s pond.

Action 2d: Update and Publish Rules and Regulations of Conservation Lands (1999-2000)

Priority: Urgent

Responsibility: Conservation Commission

Develop a set of rules governing use of conservation lands including access by domestic animals and proper disposal of pet waste. The rules should be designed to help control vandalism on town properties and enhance the enjoyment of use by the general public.

Action 2e: Forest River Sluice Gates (1999-2000)

Priority: Necessary

Responsibility: Conservation Commission

Cooperate with the Salem Conservation Commission to insure the tidal gates remain permanently open (these gates are located at the mouth of the Forest River and block the natural tidal flows in the river).

Action 2f: Initiate a Trail Management Program Including Maximum Feasible Access for people with disabilities (1999-2001)

Priority: Necessary

Responsibility: Conservation Commission

Develop a management program to restore and maintain existing trail network and to develop new trails with particular attention to providing maximum feasible access for people with disabilities. Work with the book project and the schools. Distribute maps.

Goal 3: Acquire Strategic Land Parcels

Objective: To Expand Protected Open Space and Waterfront Access Within the Town

Action 3a: Build Conservation Land Fund (1999-2003)

Priority: Urgent

Responsibility: Conservation Commission

Prepare and support town meeting funding article for 1999. Solicit private donations. Identify and pursue grants and other external sources of funds for open space acquisition.

Action 3b: Acquisition of Lead Mills Site (1999-2000)

Priority: Urgent

Responsibility: Conservation Commission

Obtain commitment from owners and complete environmental review. Secure funding for acquisition. Work with the City of Salem to complete this cooperative acquisition.

Action 3c: Develop Policies and Procedures for Identifying, Reviewing, and Accepting Donated Land (2000-2001)

Priority: Urgent

Responsibility: Conservation Commission

Work with the local Town Planner to identify all existing parcels of land under private ownership which have not yet been developed. Evaluate the lands for the purpose of open space (proximity to existing conservation lands, existence of vernal pools or other important habitat). Do the same with school department lands. Establish the monetary value of these lands and a possible schedule of acquisition. Obtain funding at town meeting and through grants. Give priority to parcels that improve shoreline access.

Action 3d: Encourage Donations of Conservation Restrictions (1999-2003)

Priority: Necessary

Responsibility: Conservation Commission

Educate residents on the nature of conservation restrictions (easements), and the benefits to both the town and the donor. Identify and approach potential donors.

Goal 4: Develop Public Partnerships

Objective: To Educate the Citizens of Marblehead on the Importance of Conservation and Wetland Issues and to Encourage Their Participation in Protecting the Town's Natural Resources

Action 4a: Encourage Volunteer Groups to Work Toward Open Space and Recreation Goals (1999-2003)

Priority: Urgent

Responsibility: Conservation Commission

Develop partnerships with local environmental groups to work on projects that enhance the town's environment.

Action 4b: Use Newspaper Articles to Educate Public on Importance of Conservation Issues (1999-2003)

Priority: Necessary

Responsibility: Conservation Commission

Continue the "Looking out Your Back Door" series of articles to enhance environmental awareness within the town. Use "Letters to the Editor" and press releases to inform the public about items of environmental concern.

Action 4c: Promote Environmentally Friendly Landscaping (1999-2003)

Priority: Necessary

Responsibility: Conservation Commission

Continue to educate the public on the use of agricultural chemicals and organic waste disposal.

Action 4d: Use the Internet to Communicate With Town Citizens (2000)

Priority: Desirable

Responsibility: Conservation Commission

Provide forms and informational brochures electronically. Include links to related sites including the D.E.P.

Action 4e: Ensure that Public is Aware of Town Resources by Publishing Open Spaces Book and by Other Means (1999-2000)

Priority: Desirable

Responsibility: Conservation Commission

Provide support to the Open Spaces Book Committee. Continue to provide maps and brochures on conservation lands and other open space areas. Assist teachers within the Marblehead schools with environmental education programs.

Goal 5: Expand Recreational Facilities and Programs

Objective: To expand the year-round recreational opportunities for both children and adults.

Action 5a: Add a new baseball field at Gatchell's.

Priority: 1999

Responsibility: Park & Rec. Commission

Action 5b: Rebuild restrooms at Gatchell's.

Priority: 2001

Responsibility: Park & Rec. Commission

Action 5c: Upgrade playground equipment at Devereux Beach.

Priority: 1999

Responsibility: Park & Rec. Commission

Action 5d: Initiate a field expansion study at the Byors property.

Priority: 2003

Responsibility: Park & Rec. Commission

Action 5e: Begin clean up of Redd's pond through DEM Lakes and Ponds Program.

Priority: 2000-2001

Responsibility: Park & Rec. Commission

Action 5f: Initiate meeting with School Department on reuse of lands not currently used.

Priority: 2000

Responsibility: Park & Rec. Commission

GOAL 6: Improve Park and Playground Maintenance

Objective: To make our parks cleaner, safer, and more attractive.

Action 6a: Review existing trash collection program.

Priority: 1999-2003

Responsibility: Park & Rec. Commission

Action 6b: Develop an education program on proper waste disposal.

Priority: 1999-2003

Responsibility: Park & Rec. Commission

Action 6c: Research other communities' methods for waste disposal.

Priority: 2000

Responsibility: Park & Rec. Commission

Action 6d: Commissioners Walks of All Properties

Priority: 1999-2003

Responsibility: Park & Rec. Commission

GOAL 7: Create a Capital Improvement Program

Objective: To improve long-range planning for costly projects.

Action 7a: Upgrade playground equipment, look at consolidating playgrounds and concentrate efforts in key areas.

Priority: 2000-2003

Responsibility: Park & Rec. Commission

Action 7b: Conduct an inventory of all recreation properties, their uses and buildings.

Priority: 1999

Responsibility: Park & Rec. Commission

Action 7c: Develop a capital improvements program to maximize use of Shattuck funds, grant opportunities etc.

Priority: 1999-2003

Responsibility: Park & Rec. Commission

Goal 8: Publicize and Promote Usage of Parks, Facilities and Programs

Objective: Make people more aware of what Marblehead has to offer.

Action 8a: Develop an interpretive signage program including site locations and develop uniform signage.

Priority: 1999
Responsibility: Park & Rec. Commission
Action 8b: Develop a Memorial Bench Placement Plan
Priority: 1999
Responsibility: Park & Rec. Commission
Action 8c: Support Book Project on Open Spaces
Priority: 1999
Responsibility: Park & Rec. Commission

GOAL 9: Improve Universal Access to Parks, Playgrounds, and Restrooms

Objective: Improve universal access to our open spaces and facilities and improve opportunities for people with disabilities.

Action 9a: Initiate a meeting with the disabilities commission to discuss access.

Priority: 1999

Responsibility: Park & Rec. Commission

Action 9b: Research available funding programs for access planning & construction.

Priority: 1999-2000

Responsibility: Park & Rec. Commission

GOAL 10: Promote Use of the Waterfront

Objective: Expand and promote usage of the waterfront for all forms of recreational use.

Action 10a: Expand boating program.

Priority: 2000

Responsibility: Park & Rec. Commission

Action 10b: Begin kayaking program.

Priority: 2000

Responsibility: Park & Rec. Commission

Action 10c: Tie adjacent recreational areas into causeway improvements

Priority: 1999-2003

Responsibility: Park & Rec. Commission

Please assign the following or delete them.

Others that came up at the meeting that I haven't put into a specific goal yet

- look at reuse of gas building at Chandler Hovey gas building
- identify locations and type of benches for bench replacement program
- develop a memorial tree program
- maintain garage at Vine street design new storage facility
- reestablish nursery

The foregoing Marblehead goals correspond in many instances to certain goals as delineated in the State Comprehensive Open Space and Recreation Plan (SCORP). The following table identifies those Marblehead Goals that correspond to some of the goals in SCORP.

<u>Marblehead Goals</u>	<u>SCORP Goals</u> <u>Policy / Item</u>
Goal 1	
1.	2/11 12/4 12/15
2.	2/11 12/2
3.	12/20 25/8 26/2
Goal 2	
1.	2/10 12/4 12/16
Goal 3	
1.	2/3 12/1 12/5 12/13 12/15 12/17
Goal 4	
1.	25/8 26/2 26/5 26/6 26/7
Goal 5	
1.	2/8 2/10
2.	2/9 21/4
Goal 6	
1.	2/10 19/1 19/2 19/12 22/5
Goal 7	
1.	2/10 22/5
Goal 8	
1.	2/2 22/7 26/2 26/5 26/6 26/7
Goal 9	
1.	21/5 22/12 23/10
Goal 10	
1.	12/15 12/17 22/1 22/3
2.	12/20 19/14

Section 10. Public Comments

The Open Space and Recreation Plan Study Committee (OS&RPSC) held two public hearings on the plan. The first hearing was held on April 7, 1998 following the distribution of three specialized questionnaires to the general public, town departments and organizations, and dog owners. The second hearing was held on March 4, 1999 following the release in December 1998 of the final draft of the plan. The final draft was distributed to the Selectmen and many town departments and organizations. Copies for public review were made available at the library, the Mary Alley building and Abbot Hall. The town was made aware of both public hearings by articles in the *Marblehead Reporter*.

The minutes from each public forum follow:

April 7, 1998

Representatives of 10 town departments and organizations attended in addition to 9 plan committee members and volunteers.

The purpose of the Open Space & Recreation Plan was discussed. The public meeting was described as a way to gather additional information from the community as it relates to the town's priorities for open space and recreational needs.

Jay Johnson gave a slide presentation that included aerial photographs of Marblehead's open spaces. The photographs were from a recent helicopter trip taken to improve the accuracy of maps that Jay has been preparing. Jay described the work he has been doing in conjunction with the OS&RPSC and a related project that will result in a book describing Marblehead's Open Spaces. Jay displayed a series of maps he prepared with the help of a number of local volunteers. Jay enumerated many of the town's existing open spaces and stressed the need to protect additional parcels adjoining existing conservation land.

The results of the 20 public surveys received to date were presented. Although the first group of surveys was a small sample, the committee noted that the responses were likely from a diverse group of individuals. The meeting then broke up into two groups to come up with a list of priorities and discussion items. We reconvened as a full group, and reviewed the results. Many of the priorities and concerns listed below were common to the two subgroups.

The need for education, public relations, and improved public appreciation of existing open spaces;
Open space preservation and maintenance including "the Path" and natural habitats;
The need for a massive clean-up in many locations around Marblehead;
Using an Intermodal Transportation Grant to connect the open spaces with a wildlife corridor;
The need to complete the Camp Shore Lea Nature Center and associated trail system;
Preservation of remaining wetlands;
The need for funding to complete the plan's objectives;
Intrusion by exotic plant species;
The need to identify acquirable parcels for future purchase;
Turning unused School Department lands over to the Conservation Commission;
Vandalism;
Expansion of Community Gardens;
Access to water bodies;
Development of the Sevinor property for recreational activities;
Covered trash receptacles needed everywhere including dog waste receptacles;
The need to remove the burned building at Gatchell's Playground and ball fields;
Checking the status of acquiring Gerry Island by the Trustees of Reservations;
Eviction and hazardous materials at Gashouse Beach;
Checking the status of the Lead Mills acquisition;
The need for private groups to "adopt an area";
Community service opportunities related to open space maintenance (offenders' payback); and
The profusion of crows around town.

March 4, 1999

Attended by 15 citizens including 3 selectmen, and by 7 plan committee members and volunteers.

Dennis Curtin (Park & Rec. Commissioner) presented a slide show on open spaces around town and recent recreational opportunities including the visit of the U.S.S. Constitution. The current status of the plan was described and the bulk of the meeting was devoted to discussion of issues and concerns raised by the plan. Written comments were also received. A representative of the League of Women Voters Open Space Study Committee closed the meeting with a synopsis of their efforts to form a permanent group to acquire and manage open space for the town.

The following topics were discussed at the meeting:

Whether the plan’s goals will be achieved if a Conservation Agent is not hired;
 Participation in an upcoming study on consolidation of buildings and grounds maintenance;
 The difficulty of maintaining Conservation and other open land with primarily volunteer resources;
 The potential loss of the 33 acre Sirosis Farm (Sevinor Site) to a new High School-the need to appreciate and protect the open spaces the town already has;
 Infrastructure stress due to over-development and small lot zoning, loss of water percolation, flooding;
 Maintenance of open school department land, and potential transfer to Conservation Comm.;
 Abutter encroachment on public rights of ways, especially those that provide access to ocean;
 The effect of development on wildlife habitat-are there any endangered species in town?;
 Existing laws/zoning seem to favor landowners/development over preservation;
 Lack of a legal budget to defend existing zoning laws;
 The need to identify parcels for protection from development;
 Zoning and tax policy-it’s effect on preservation or development of open space;
 The importance of open space as a buffer between neighborhoods and around industrial areas;
 The need for land banks and other means to finance acquisition of open lands;
 Concern about “unrestricted” zoning, especially in the vicinity of Redd’s Pond; and
 The need to preserve Gerry Island as open space--prior efforts to protect it were unsuccessful.

We are grateful to the following boards and organizations for attending the public hearings and/or providing comments and suggestions to the Plan study committee.

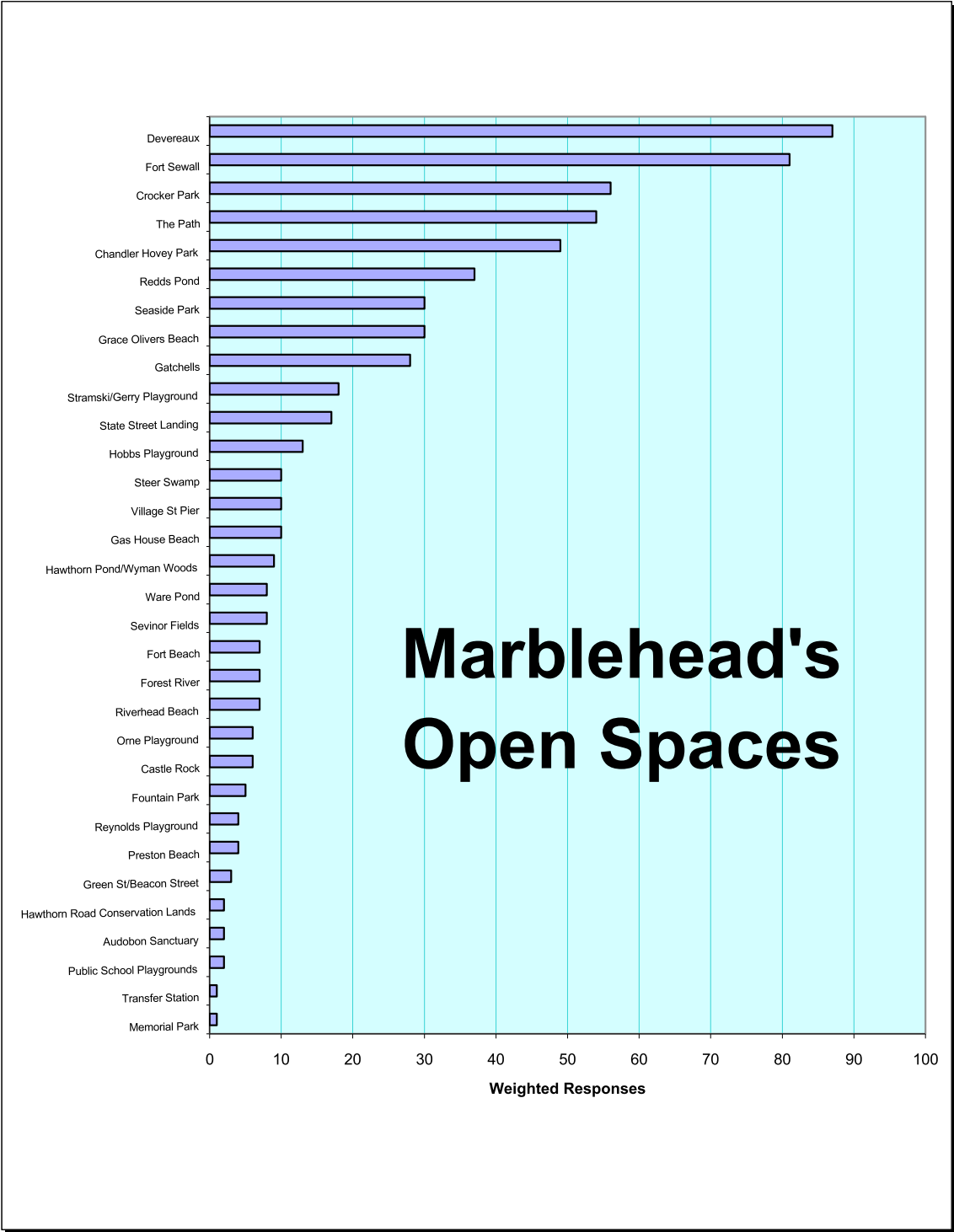
Board of Selectmen	Capital Planning Committee
Marblehead Environmental Coalition	Bicycle & Trails Committee
Marblehead Youth Soccer Assn.	League of Women Voters
Salem Sound 2000	Marblehead Public Schools
Marblehead Reporter	Open Spaces Book Project
	Shore Lea Nature Center
	Old Powder House Neighborhood Assn.

And of course we are grateful to the many interested citizens who completed surveys, attended the hearings, or provided written comments to the committee.

Section 11. References
Appendices
Contents

Appendix A: Sample Public Survey, Dog Survey, Town Organization Survey, Public Hearing Handout, List of Town Organizations

Most Used Open Spaces



Conservation Commission Lands

A copy of the Marblehead Conservation Commission's Wetlands Information Brochure, which delineates areas of possible concern under the Wetlands Protection Act (Ch. 131 Section 40 MGL), is included in Appendix III. Copies of this brochure are available at the Building Inspector's office and from the Conservation Commission. The land under jurisdiction of the Conservation Commission was acquired over a number of years through a series of gifts and purchases:

ACREAGE	DATE ACQ	FROM	ACQUIRED BY
STEER SWAMP			
3.78	1963	Gertrude Howard	Gift
0.35	1966	Linton Bell	Gift
2.66	1966	Mortimer Brown	Gift
1.84	1967	William Crowninshield	Purchase
4.01	1968	Katherine Hammond & Emily Record	Gift & Purchase
1.25	1971	William Crowninshield	Purchase
2.16	1971	Robert Jannell	Purchase
0.50	1971	Rindge Estate	Purchase
2.75	1972	Earl Doliber	Purchase
1.20	1972	Barbara Hunneman & Charles Nyren	Purchase
1.79	1972	Thomas Barry	Purchase
2.52	1972	Kenneth Gelpy	Purchase
15.78	1972	Joseph Roche	Eminent domain
0.1		Edward Martin	Gift
0.79	1973	Agnes Johnston	Purchase
2.00		J.J. Storrow	Gift
WYMAN WOODS			
12.28	1961	Transferred by Selectmen Wyman family	Gift
12.31	1972	Marblehead Cliff Realty	Purchase
2.2	1981	Marblehead Trust	Purchase
6.7	1981	In memory of Azor Orne Goodwin	Gift
WARE POND			
4.28	1965	Ralph Sevinor Realty Trust	Gift
3.50	1969	Silverman & Klodny	Purchase
0.72	1980	Sevinor (30,600 sq. ft.)	Purchase
FOREST RIVER			
26.0	1973	Haley	Eminent Domain
HAWTHORN POND			
3.10	1969	Lauria & Risti	Purchase
1.29	1969	Howard Knight	Gift
0.32	1969	Bertram Rice	Gift
0.32	1969	Donald Daley	Gift
0.71	1969	Bart O'Connor	Gift of easement
0.49	1969	Fred Brown	Gift of easement
0.47	1969	David Byors	Gift of easement
0.03	1970	Richard & Elizabeth Hosley	Gift of easement
0.01	1970	Chester & Barbara Nourse	Gift of easement
0.002	1970	Marvin & Alicia Pocharski	Gift of easement
0.01	1970	William & Rebecca Seaver	Gift of easement
0.04	1970	Bruce & Sarah Schwoeghler	Gift of easement
1.25	1970	Lauria & Risti	Purchase
0.25	1970	Bouchard	Purchase
1.50	1976	Russell W. Knight	Gift
RAM ISLAND			

Investigation of Coastal Storm and Erosion Damage

The first study, Investigation of Coastal Storm and Erosion Damage at Five Sites, Marblehead, Massachusetts, was a study of coastal erosion at five locations in the town: Fort Sewall, Fort Beach, Devereux Rocks, Castle Rock, and Chandler Hovey Park. The firm of Anderson-Nichols was contracted to do the study and make recommendations. The recommendations to restore Fort Sewall were undertaken after the 1978 blizzard. Work has been completed on Castle Rock and Chandler Hover Park. The results of the study and study reports are available from either the Conservation Commission or from the Recreation and Park Commission.

Lead Mills

Things To Do

- Work with Swampscott to open the old railroad bed to the Swampscott train station.
- Deal with encroachment on The Path.
- Easements on Ware's Pond parcels abutting pond.
- Catholic Cemetery problems at Forest River
- Complete Vernal Pool survey of town wetlands
- Redd's Pond Saw Mill (protect)
- Electrical property near temple
- Restore Seaside to original state
- Transfer unused school properties to CC so they can't be developed?

