

NAHANT OPEN SPACE AND RECREATION PLAN 2000

(FINAL VERSION—REVISED APRIL 2001)

Prepared by the

Nahant Open Space Management and Land Acquisition Committee

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Nahant, Massachusetts

Nahant Open Space Management and Land Acquisition Committee

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Nahant Open Space and Recreation Plan 2000

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SECTION 1. PLAN SUMMARY

This *Open Space and Recreation Plan* provides the Town of Nahant with a five-year program for protecting open land from future development, for managing open space, and for improving existing open space areas for passive recreation. Nahant faces open-space challenges that are different from those faced by other cities and towns. Nahant does not have to deal with districts within its own boundaries where heavy pollution is produced or with encroaching commercial development. However, there is increasing pressure to construct additional residential housing and to accommodate the varied and often formidable forces of change coming out of the large and expanding urban centers nearby. It is a sobering fact that, after almost four centuries of expansion and development, much of Nahant's original open space is gone.

This *Plan* recognizes the unique place of Nahant in the history of the Commonwealth of Massachusetts. It offers a comprehensive open space inventory, the results of an Open Space Survey conducted early in 1999, a discussion of the outcome of past conservation efforts, and an evaluation of the danger of allowing the development of the Town's remaining open space for residential housing. The Goals (Sections 6 and 8) and the Five-Year Action Plan (Section 9) are intended as a road map for the Town to follow to deal with its special open-space challenges. This *Plan* identifies general as well as specific goals, including the construction and maintenance of nature trails, the development of a management plan for Bailey's Hill similar to the one for Henry Cabot Lodge, Jr., Memorial Park (see **Appendix 1**), and the designation of additional land for acquisition or conservation restriction. It is acknowledged that this *Open Space and Recreation Plan* will have to be reevaluated in the future.



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SECTION 2. INTRODUCTION

A. Statement of Purpose

The Town of Nahant's first *Open Space Plan* was adopted by the Town in 1989. That project was the first task of the newly formed Open Space Committee. (The Committee, officially named the Nahant Open Space Management and Land Acquisition Committee, but known as the "Nahant Open Space Committee," is a volunteer group, now appointed by the Town Administrator, whose purpose is to address open space issues.) Some of the goals of the original *Plan* have been accomplished, including the rehabilitation and rededication of Henry Cabot Lodge, Jr., Memorial Park. The present document is a revision of the 1989 *Plan*. The purpose includes the following: to assess the Town's accomplishments, to reevaluate and update the Town's previous goals and action plan, to meet the requirements set down in the *1990 Open Space and Recreation Plan Requirements* of the Commonwealth of Massachusetts Executive Office of Environmental Affairs (Executive Office of Environmental Affairs 1990) and thus qualify for conservation funding, and to help the Town focus on creating a vision for the future of Nahant.

The process of writing this revised *Plan* included doing research, conducting a survey, consulting with interest groups and relevant Town committees, meeting to revisit and assess past objectives and develop future goals, and submitting a draft Plan in order to obtain input from other Town committees, the Board of Selectmen, the Department of Public Works, the Regional Planning Board, and the Town Administrator. This process provided a vehicle for reevaluating and articulating the work to be done in order to protect Nahant's open space and improve the Town's recreation opportunities.

B. Planning Process and Public Participation

The Nahant Open Space Committee organized itself to write an updated Open Space Plan in August 1998. The first version was completed in February 2000, and the final version in January 2001. Much of 2000 was spent developing a handicap-accessibility evaluation for the Town's major open space sites, evaluating the sites, and finding an Americans with Disabilities Act (ADA) Coordinator as required by the Executive Office of Environmental Affairs. Throughout this process, the Committee chairperson was Linda Pivacek, and the other members were Deborah Aliff, John I. Benson, Sherry V. Smith, and Stephanie Tuttle.

During this period the Committee held seventeen official meetings. Notices for all of these meetings were posted at the Town Hall, and the meetings, held at the Town Hall, were open to the public. Public participation also included a new Open Space Committee Survey, updating an earlier survey done by this Committee in 1989. The new survey was intended to help the Committee obtain more recent input from Town of Nahant residents. Out of 1,800 copies of the survey that were distributed to households or central locations, 258 completed copies were



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returned. Residents were asked to respond to specific questions and also to offer comments. A copy of the survey questionnaire and a tabulation of the results are included in **Appendix 2**.

Responsibility for the sections of the present *Plan* were divided among the members of the Committee, and a projected date was set for the completion of each task. The Committee was fortunate to have the assistance of a number of individuals outside the Committee who had particular expertise in certain areas.

Town Administrator Mark Cullinan gave us his ongoing help and support throughout this effort. He and James Ryan also provided guidance in the preparation of the required maps.

James McCurdy, Chairperson of the Planning Board, wrote parts of Section 3D on future development.

Calantha Sears and Mary Irene Dickenson from the Nahant Historical Society contributed to the cultural and historical portion of Section 4F. Calantha Sears was very helpful in providing information on and access to pressed-plant collections that were consulted in the preparation of Section 4D and to historical maps that appear in **Appendix 3**.

Polly Bradley, President of SWIM (Safer Waters in Massachusetts), wrote portions of Section 4, especially Section 4G, which deals with local and regional environmental problems.

Bernard Yadoff and Emily Potts helped to tabulate and report on the results of the most recent Open Space Committee Survey.

Town Constable Paul English agreed to take on the role of Americans with Disabilities Act (ADA) Coordinator and assisted in the survey of open space sites for handicap accessibility.

Daniel A. deStefano, Director of the Nahant Public Library, provided the valuable service of maintaining and making accessible important reference sources needed in our research on the Town's social and natural history.

The Massachusetts Department of Environmental Management, Division of Resource Conservation, was consulted for information on the Massachusetts scenic landscape inventory.

Jennifer Soper at the Massachusetts Executive Office of Environmental Affairs helped the Committee with information on the status of the 1989 *Nahant Open Space Plan* and gave the Committee valuable guidance in preparing this new *Plan*.

Joan Blaustein, the Land Resources Planner for the Metropolitan Area Planning Council, provided us with a draft copy of the Land Resources Element of their "MetroPlan 2000: The Regional Development Plan for Metropolitan Boston" so that suggestions from it could be incorporated into the new Nahant *Plan*.

Two of the requirements for the present *Plan* proved more difficult than anticipated: the maps and the analysis of accessibility for disabled persons. The Committee decided to submit a final working draft of this *Plan* for comments in the fall of 1999 without the maps and the accessibility analysis, to avoid further delay in finishing the *Plan*. It was decided that the Committee would work on the completion of these two elements while awaiting official comments. The draft *Plan* was submitted to the following for comment:



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Metropolitan Area Planning Council Board of Selectmen (also serving as the Board of Health) Town Administrator Board of Appeals Board of Assessors Conservation Commission Historical Commission Planning Board Recreation Commission

Changes to the present *Plan* were made in response to the comments received. Upon endorsement by the official bodies required to review it, the first draft was then submitted to the Executive Office of Environmental Affairs early in 2000. The handicap-accessibility analysis was completed and submitted in January 2001 (see **Appendix 4**, "Section 504 Self-Evaluation").

Final approval was received from Jennifer Soper of the Massachusetts Executive Office of Environmental Affairs on January 29, 2001.

In acknowledging the valuable assistance and comments that have been received from the persons and many of the organizations mentioned above, the members of the Nahant Open Space Committee accept responsibility for any unintended errors in or omissions from this *Plan*.



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SECTION 3. COMMUNITY SETTING

A. Regional Context

Nahant is a peninsula located to the north of Boston Harbor and connected to the mainland by a 1.5-mile-long causeway. It is known for its sandy beaches, rocky coastline, and scenic views. Included within the Town limits is an uninhabited island, Egg Rock, which sits 1.1 miles offshore. Historically, Egg Rock was used as the site for a lighthouse, erected in 1856. The two main sections of Nahant are connected by another causeway and are known as Big Nahant and Little Nahant. The smallest town in the Commonwealth of Massachusetts, Nahant is 1.24 square miles with a population of 3,828 (Massachusetts Department of Revenue 9/1/98). It is largely a bedroom community for Boston and other cities. There is convenient commuter rail service for the twelve miles to Boston from the neighboring communities of Lynn and Swampscott. Logan Airport is twenty minutes by car to the south.

Historically, Big Nahant consisted of large estates in the eastern part of the peninsula, more modest homes in the center bordering a salt marsh, and a thickly settled resort area in the western part of town. Little Nahant was developed in the early 1900s with small homes built close together. Today the homes with larger land areas still tend to be located on the eastern part of Big Nahant while both Little Nahant and the western part of Big Nahant are thickly settled.

Lobster trapping is the largest industry in town. The health of the ecosystem surrounding the waters of Nahant is a deeply felt concern in Nahant, and resolving the sewage-disposal issues discussed below is seen as vital to the industry's survival.

Nahant has 3,087 people per square mile. Nahant's closest neighbors, Lynn, Swampscott, Marblehead, and Salem, are also densely populated. The need for open space is therefore acute. Due to its location and spectacular natural beauty, Nahant historically has drawn thousands of visitors from other communities. By the middle of the eighteenth century, it was a major tourist resort and vacation spot for Bostonians escaping the summer heat. Today, the peninsula attracts people for jogging, sport fishing, kite flying, windsurfing, kayaking, nature study, and bicycling—to name just a few of the kinds of recreation enjoyed here. Since the peninsula is important as a feeding and resting spot for migratory songbirds and shorebirds, as well as a home to a number of nesting species, their often conflicting needs must also be considered.

Nahant has three State-designated Barrier Beaches, one of which is Nahant Beach (see **Appendix 3**, **Map 1**: "Coastal Zone Management Map of State-designated Barrier Beaches"). The Metropolitan District Commission manages a 3,202,000-square-foot reservation along the causeway connecting Nahant and Lynn, which includes Nahant Beach, a bike path, bathroom facilities, and public parking. Use by non-residents of the many other recreational resources, including Lodge Park, Tudor Wharf, Tudor Beach, Marjoram Park, Bailey's Hill, and Short Beach is permitted but as a practical matter is limited due to the lack of public parking. Because of its small size, the protection of its precious recreational resources is a crucial need in Nahant.

Nahant's Open Space Plan should consider the goals of its neighbors. Surrounded by ocean, Nahant borders Lynn on the mainland where Lynn Beach and Nahant Beach connect. The City



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of Lynn, in a recent Open Space Plan, identified access to the shoreline as one of its most important open space needs (*City of Lynn Open Space and Recreation Plan Update III* [n.d.]: Sec. VII. A). As a result, a major renovation of Lynn Beach has been achieved, allowing pedestrian and passive-recreation uses. This large project resulted in a restored walkway, park benches, new lighting, grassy areas, and a new seawall—and it now offers the potential for linkage to a new Nahant trail to include Lynn Beach, Nahant Beach, Short Beach, the Lowlands ("The Meadows"), and Bailey's Hill. This kind of project would require the cooperation of Nahant, Lynn, and the Metropolitan District Commission, which manages Lynn Beach and Nahant Beach together as "Long Beach Reservation." It would also complement similar regional outdoor recreational projects such as the East Boston Greenway.

Nahant should participate in the open space planning for the larger region. The Town is a member of the Inner Core Committee, consisting of eight Metropolitan Area Planning Council subregions, which provides a forum for the discussion of open space issues and opportunities.

Nahant's neighbors also include those communities that share its coastline. SWIM (Safer Waters in Massachusetts) is a local advocacy group based in Nahant that works with the Town and the surrounding communities to protect wildlife resources and the marine environment.

B. *History*

Native American artifacts have been found on Nahant, indicating at least a summer community here. The group that settled the peninsula probably belonged to the Naumkeags, part of the Pawtucket group (also known as Pennacook), who were known to have lived along the coast from Massachusetts Bay to York Village, Maine, hunting, fishing, and collecting plants and shellfish (see **Appendix 3**, **Map 2**: "Nahant as It May Have Been in the Seventeenth Century").

Until 1853 Nahant was part of Lynn, which was settled by Puritan farmers in 1629 and incorporated as a town in 1631. While Salem to the north and Boston to the south became world trading centers, attracting wealthy merchants, Lynn was an agricultural town through the early 1800s. Lynn farmers used Nahant as a pasture for domestic animals. By the time of the American Revolution, there were three Quaker families living on Nahant, fishing, farming, and making shoes to sell. Since ownership required that lots were to be cleared of wood in six years, Nahant lost its woodlands at an early date.

Nahant's natural beauty shaped its future. The beaches, rugged rocks, fishing, and tide pools as well as the kind hospitality of the residents began to attract visitors. Steamboat service from Boston started in 1817. By 1820, Bostonians and others began to summer in Nahant, and 1823 saw the opening of the Nahant Hotel at East Point. Stage service from the Nahant Hotel to Boston and Salem started in 1826. This was the beginning of the era of Nahant as a resort town, with the resort facilities centered initially at East Point. The civic and commercial buildings were concentrated in the center of Big Nahant along with the homes of some of the permanent residents. The western part of Big Nahant remained mostly undeveloped.

The year-round population grew from 197 in 1847 to 270 in 1855. In 1865 there were 313 residents. Some residents farmed while others fished for cod, mackerel, haddock, and halibut. The lobster industry began in 1858, and survived after the fishing industry died out with the



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introduction of trawlers. Several ocean-going vessels were built in Nahant. The first, a schooner, was launched in 1858. A few Nahant families made shoes on consignment for Lynn manufacturers. The construction industry was an important source of income for Nahant residents from the 1860s to the early part of the twentieth century. The resort industry, however, was the most significant contributor to the Nahant economy.

When the growing temperance movement threatened the summer resort trade in 1853, Nahant became a separate town, leaving Lynn and its Temperance Society behind. By the 1860s the western part of Big Nahant became the center of a working-class entertainment area. Nahant was to grow into the most massive hotel complex on the Atlantic Coast.

The various districts in Nahant came to be clearly delineated. Toward the east was a Boston summer community of rich merchant families and intellectuals. There were several large estates, including the home of Senator Henry Cabot Lodge and his family at East Point, on the former site of the Nahant Hotel, which burned in 1861. The civic and commercial buildings were clustered on Nahant Road. There was a large saltwater marsh called The Meadows, which separated Bass Point from the main part of town. In the center of The Meadows was Bear Pond. The Bass Point area to the West of the marsh catered to working-class visitors. Bass Point contained several hotels, seafood restaurants, and entertainment facilities, including a roller-skating rink, bandstand, shooting gallery, bowling alley, theater, and roller coaster (also known as the "scenic railway").

In 1880 the environmental pressures of this influx of people led to an outbreak of typhoid fever. As part of the remedy, the marsh was drained. In 1905 the Nahant and Lynn Street Railway broke ground, laying track alongside the causeway, with a trestle across what was left of the marsh to the intersection of Flash and Spring Roads. From there, one spur went on to the Relay Yard at Bass Point and another traveled to Tudor Wharf via Wharf Street. There was probably extensive filling of The Meadows at this time (see **Appendix 3**, **Map 3**: "Nahant [ca. 1914]"). The resident population was 475 in 1870 but had increased by 192 percent to 1,387 in 1915. By the 1900s, Bass Point became the focus of visitors, with as many as 40,000 arriving on weekends to visit the entertainment area. In the western part of Big Nahant as well as Little Nahant there were small, tightly clustered cottages—the development pattern that remains today.

A combination of factors brought an end to the resort era in Nahant. When the United States entered World War I, the steamers bringing people to Nahant were taken over by the military, and this service stopped. Later, the Great Depression made the large estates impractical, and prohibition cut into the resort industry. The hotels and entertainment areas at Bass Point were torn down, and the large estates in the eastern portion of the Town were sold off and subdivided.

Two large areas of open space in beautiful ocean settings, East Point and Bailey's Hill, would have been developed were it not for the protection of these areas for their military value. Starting in 1886, portions of Nahant had been set aside for gun emplacements. The military drastically altered these landscapes to conceal the guns behind man-made hills. Although the last military occupation was in 1962, the Army remained involved, gradually removing some of the gear and hazardous materials.



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East Point, first the site of the Nahant Hotel, then the estate of Henry Cabot Lodge, and finally a military base, belongs partly to Northeastern University and partly to the Town of Nahant. After the closing of the military base, the missile silos at East Point were gradually filled with a variety of materials and topped with landfill, including asphalt and cement, resulting in an unsightly public hazard. Immediately following its formation in 1988, the Open Space Committee sponsored the rehabilitation of this area, now known as Henry Cabot Lodge, Jr., Memorial Park. The rehabilitation process was completed in 1997. The Park is 361,548 square feet in area. Northeastern University owns 889,495 square feet at East Point, where it maintains a marine biology laboratory and research station.

Today, the Northern part of The Meadows, where the railroad once ran, now contains a softball field (located across the main road from Short Beach), a filled area set aside for Towngenerated compost and the storage of commercial lobster pots, and some undeveloped land. Wet "canals" run through this area. The southern side of The Meadows has more ballfields and a golf course, which was purchased by the Town in 1988. The golf course constitutes the largest tract of land in Nahant. It is separated from the ocean by a dike, and, since the whole area is frequently flooded, there is a system of pumps to dry it out. Remnants of Bear Pond and the marsh can be seen on the golf course, and this habitat attracts herons, geese, and glossy ibis.

The Nahant Country Club, originally the homestead of Frederic Tudor, occupies another large tract of land, which also contains tennis courts, buildings, and open space. It is owned by stockholders and maintained as a private club.

C. Population Characteristics

Nahant's population increased 192 percent between 1870 and 1915. After this spurt, however, the pace of growth slowed. The growth rate was 133 percent from 1915 to 1940, with an increase from 1,387 to 3,231 residents. Between 1940 and 1955, the population increased 76 percent. Between 1955 and 1970, the population continued to increase, reaching 4,119 in 1970.

Today, Nahant's population is declining, and this trend is expected to continue, according to the Department of Housing and Community Development. In 1980 the population was 3,947, and in 1990 it was 3,828, a loss of 3 percent. By 2010 there are expected to be 3,289 people, a loss of 8.6 percent. Nahant is densely populated, having 3,087 people per square mile.

The following data is from the 1990 U.S. Census: There was a small female majority of 2,007 females to 1,821 males. The breakdown of the population by age showed that 5.9 percent were under 5 years of age; 9.1 percent were between 5 and 14; 45.5 percent were between 15 and 44; 20.9 percent were between 45 and 64; and 18.5 percent were 65 and over. The Nahant population was 98.1 percent White, 0.2 percent Black, 1 percent Hispanic, 0.6 percent Asian or Pacific Islander, 0.1 percent Native American, Eskimo, or Aleut, and 0.1 percent "Other." Households by type showed the following: 52.8 percent of all Nahant households were classified as "married couple family," 2.7 percent as "male householder," 8.3 percent as "female householder," and 36.2 percent as "non-family households."



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The median household income is \$47,212. The per capita income is \$22,724. Only 2.5 percent of the population were below the poverty level in the 1990 Census, well below the 8.9 percent statewide average. In 1990 only 3.4 percent were unemployed.

According to the 1990 census, most residents of Nahant, 68.9 percent, lived in single-family homes. Most units, 65.1 percent, were owner occupied, whereas 34.9 percent were renter occupied. In 1993, 2.93 percent of Nahant's population lived in subsidized housing.

Nahant lobstermen and the Nahant businesses that depend on them, including Nahant Fish and Lobster, employ around fifty people. There are only a few other employers in Nahant. They include a few convenience stores, a real estate office, a liquor store, the Town of Nahant, and a few restaurants and clubs.

D. Growth and Development Patterns

1. Patterns and Trends

The overall growth pattern in Nahant is toward residential rather than commercial use. Some sections of town are hilly, with complex street patterns and small lots. Other areas, mostly in the Eastern section of Big Nahant, have sizable homes on large lots. There are a few apartment buildings. The largest is the 128-unit Bass Point Apartments, built in 1973 (after a change in the zoning bylaws in 1969), with swimming pool and tennis court. The former J. T. Wilson School on Nahant Road was converted to elderly housing in 1983, and the former Valley Road School was recently acquired by the Nahant Historical Commission.

Even though the population is in decline, the number of dwelling units is increasing. In the 1960s, it was thought that only one hundred more houses could be built in Nahant, but at least 120 houses were built between then and 1989. Between 1970 and 1980, the number of dwelling units increased 10 percent (from 1,397 to 1,547), while the population declined by about 5 percent. As pressure intensified, land once considered inadequate, unsuitable, or protected by State or Federal statute has been developed. This is plainly visible when looking at houses recently built on stilts or on rock ledges.

Approximately one third of Nahant is under public or institutional ownership. Land in this category includes the following: Egg Rock, Lodge Park, Greenlawn Cemetery, the Massachusetts Audubon sanctuary known as "The Thicket," the Johnson School, the former Valley Road School, the Library, the Town Hall, the Fire Station, the Police Station, the Public Works building, the Lowlands ballfields, the causeway, Tudor Wharf, Bailey's Hill, the Kelley Greens golf course, the Coast Guard Station, playgrounds, Town beaches, churches, Northeastern University, and clubs.

2. Infrastructure

(a) *Transportation system*. Access to Nahant by land is limited to a single road, maintained by the Metropolitan District Commission, which runs the length of the causeway. This road



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connects Nahant to Lynn and Route 129. Running along the edge of the road is a bicycle path and a public parking lot for beachgoers. There is very little public parking in Nahant after the Little Nahant end of the causeway. Therefore there is normally very little congestion and no need for traffic lights and parking meters.

Massachusetts Bay Transportation Authority (MBTA) buses circle Nahant and provide connecting service to other MBTA buses in Lynn, to the commuter rail north to Rockport or south to Boston, and to the MBTA Blue Line Subway at Wonderland in Revere. The MBTA also provides The Ride, a service for the elderly and disabled.

- **(b)** Water supply system. The source of Nahant's water is the Quabbin reservoir. The water supply for Nahant is administered by the Massachusetts Water Resources Authority (MWRA).
- (c) Sewer system. Until 1984, Nahant discharged untreated sewage into coastal waters at Broad Sound through a sewer outfall off Trimountain Road, through six other public sewer outlets, and through a number of private sewer outlets. Local concern over the quality of the Town's coastal waters, together with a directive from the Environmental Protection Agency to eliminate untreated discharges, prompted the Town to tie into the Lynn sewage treatment facility. Nahant's sewage is now being pumped to this regional plant, where it receives primary and secondary treatment. A sewer outfall discharges treated waste into Lynn Harbor. This outfall is 0.6 miles off Bass Point, in thirty feet of water.

Also affecting the quality of the Nahant coastal waters is the Greater Boston Sewage Treatment Plant at Deer Island administered by the MWRA. This plant will discharge partially (secondary) treated sewage from forty-two cities and towns through an outfall about 5.5 miles from Nahant, scheduled to begin operation, as of this writing, in the spring of 2000.

Nahant was inadvertently the site of an experiment on the impact of such an outfall on the health of lobsters. After the Lynn sewage treatment plant began discharging treated waste into the waters off Nahant, the lobsters in the area near the outfall became severely depleted. Many suspect that the use of chlorine to treat sewage is the cause of this decline; however, this has not been proven. Since the discharge site of the Deer Island outfall pipe is one of the richest lobster fisheries in the region, the impact of sewage treatment on juvenile lobsters could be devastating to the industry. SWIM (Safer Waters in Massachusetts), a community action group based in Nahant, has received wide support in Nahant and neighboring communities. SWIM has urged the MWRA to monitor juvenile lobsters before and after the outfall pipe begins pumping waste, and an agreement has been reached to begin monitoring.

3. Long-Term Development Patterns

Nahant does not have a maximum build-out plan. There are very few unbuildable lots in the Town because houses can be built in flood zones and wetlands or on ledge as long as the housing code is followed. Although current zoning does not allow for multi-family dwellings, a number of such buildings presently exist that have either been officially recognized or could be recognized in the future.



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As of January 1, 1998, the Nahant Planning Board had endorsed one new lot subdivision (70,000 square feet) off Nahant Road for five building lots. This area is bordered by Nahant Road, Pond Street and Valley Road. Given the current real estate boom, the Nahant Planning Board expects several more subdivisions to come before the Board. There are many other smaller lot subdivisions in Nahant that have been approved over the past thirty years but have not been developed. There are many other larger lots around the Town that can be subdivided under the current Zoning Bylaws unless a moratorium is imposed by the Town. Presently the zoning law for some areas (R-1) permits subdivisions of existing lots into 10,000 square feet while the zoning law for other areas (R-2) permits subdivisions of existing lots into 30,000 square feet (see **Appendix 3**, **Map 4**: "Official Zoning Map of the Town of Nahant").

Several large parcels owned by the Town are not protected and could be developed as major housing subdivisions should the Town decide to sell them. For example, the Town sold the golf course to a developer but voted to buy it back in 1988, and future development of this area is unlikely since it includes the site of Bear Pond, a protected wetland. Another example is the Johnson School, currently in use as a public elementary school, which sits on a large tract next to the golf course. If the School Department decided to have the Johnson school students attend Swampscott schools, as the high school students do, the Johnson School tract could be subdivided and developed.

There is little potential for future business development in Nahant. Presently, the central business district along Nahant Road across from Short Beach is experiencing difficulty maintaining the amount of leased space. One business property, the former site of the Nahant Pharmacy, could have its zoning revert to residential use because it has been vacant for over two years. Three other business locations in town were vacant at the time of this writing.

The Town has now received ownership of the former U.S. Coast Guard Station, which has not been used as a working facility for many years. A Town study committee has been formed to assemble a plan for the use and development of this building.



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SECTION 4. ENVIRONMENTAL INVENTORY AND ANALYSIS

A. Geology, Soils, and Topography

1. Geology

Long before Nahant as we know it today came into existence, its present site was covered by an ancient sea. The oldest rocks in Nahant are part of the Weymouth formation, deposited 600 million years ago in a shallow sea in the Olenellus Zone. This layer of sedimentary shale and limestone contains the oldest fossil-bearing rocks in eastern New England. An important example of this fascinating geological history is depicted in the cliffs at East Point, an area of continuing geological study. The fossil shells in these ancient sediments include two species of brachiopods and nine species of gastropods. Three of these species have not been identified elsewhere in eastern New England (Foerste 1889; Sears 1905; Grabau ——).

Most of the bedrock of Nahant consists of "Nahant Gabbro," a younger igneous rock formed some 400 million years ago by the cooling and recrystallization of magma.

Nahant was raised from the depths 200 million years ago during the Paleozoic era. Blocks of bedrock were uplifted and separated from the mainland by a major fault. Three smaller faults divided Nahant into four sections that may have been individual islands. Early maps in fact show Nahant as three islands: Little Nahant, Bass Point, and the area east of the lowland meadows.

The advance and retreat of the glaciers ending approximately fifteen thousand years ago scoured and shaped the terrain. The retreating ice sheets deposited the cobbles and sand that make up the beaches and a mantle of glacial till soil over Nahant. The rising sea level inundated the land, depositing silts, sands, and clays. Coastal deposition helped to form the tombolos, one connecting the two main sections of Nahant to each other and the second connecting these sections to the mainland. The ongoing process of erosion and deposition by the ocean waves and currents continues to shape the shoreline.

2. Soils

Nahant's soils are derived mainly from glacial till, and much of the soil exhibits urban disturbance.

Deep deposits of well-drained, loamy soils with areas of exposed bedrock occur in the higher areas, and highly drained loamy and sandy soils occur in outwash deposits. Nahant's soil associations comprise four groups. The area around Nahant Road north of Little Nahant is characterized by a Udorthents-Urban land association that is altered or obscured by development. East of Nahant Harbor, the wetlands in the central portion and the southeastern tip of Nahant belong to the Chatfield-Hollis Rock outcrop association. These are well-drained, loamy soils formed in glacial till containing areas of exposed bedrock. In the area north of Nahant Harbor the soils belong to the Merrimack-Hinckly-Urban land association, with deep deposits of extremely well-drained loamy and sandy soils formed in outwash deposits. Soils of the Paxton-Montank-Urban land association found in the area east of Nahant Harbor to a line between Bass Rock and Saunders Ledge are well-drained, loamy soils formed in glacial till.



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3. Topography

Nahant lies within the Seaboard Lowlands, characteristic of Essex County, with scattered hills of less than five hundred feet. Barrier beaches connect areas of higher elevation and the varied coastline includes cliffs, coves, and tidal flats.

Relating to the three subsections above, see **Appendix 3**, **Map 5**: "Surficial Geology of Nahant" and **Map 6**: "Nahant Wetlands."

4. <u>Development Limitations</u>

Most of Nahant has been developed as single-family housing units, including the slopes of several steep hills with elevations of one hundred to two hundred feet.

The low central portion of Nahant, fifty acres of lowland meadows, is the remnant of a wetland (see **Appendix 3**, **Map 6**: "Nahant Wetlands"). The original form of this area is suggested by a chart drawn by Captain Callendar of the HMS Rodney, which shows this area as an open lagoon separated from the sea by a narrow bar. The area has been drained and filled to accommodate development and is presently maintained by a dike and a pumping system. A portion of this wetland is used as a golf course, which is owned by the Town of Nahant. Further development of this wetland may be controlled to some degree by the Wetlands Protection Act and by sewage regulations. However, the presence of the golf course and numerous houses encroaching on this area shows that such protection is not guaranteed.

Since Nahant is virtually an island, exposure to ocean storms and to flooding places the greatest restraint on development. Short Beach and Nahant Beach are Nahant's largest barrier beaches. There is minimal development on these beaches: a Metropolitan District Commission (MDC) facility on Nahant Beach and a former U.S. Coast Guard Station on Short Beach. However, housing has expanded in other exposed waterfront areas, and these are vulnerable to ocean storms. The north side of Nahant consists of high rocky cliffs, and homes there are generally built well above storm-damage level. The south side has mainly sandy shores and mudflats, as well as a sandy barrier beach and formerly marshy areas, and most of the severe storm damage to homes occurs on the south side.

The shoreline, wetlands, and other open spaces in Nahant provide passive and active recreational opportunities and support plant and animal life. These vital and fragile environments must be protected from further development.

B. Landscape Character

Surrounded by the sea, Nahant has always been noted for its scenic beauty (see **Appendix 3**, **Map 7**: "Map of Nahant Past and Present"). The narrow causeway connecting Nahant to the mainland is bordered by a barrier beach to the east and a shallow bay to the west. After passing



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the rocky highland of Little Nahant and a second barrier beach, the main road reaches Big Nahant; here, winding drives offer a series of views alternately tranquil and dramatic as they follow the intricate coastline past rocky cliffs, sandy coves, and cobblestone beaches. Lobster boats anchor alongside recreational yachts in Nahant Harbor. Tidal mudflats stretch outward into Broad Sound on the western side of the peninsula. The beaches, coves, and tidal flats are important recreational sites as well as vital for waterfowl, gulls, terns, and shorebirds.

The central lowland meadows are bordered by uplands, with scattered hills of less than five hundred feet in height. These include Little Nahant, Bass Point, Bailey's Hill, East Point, John's Peril, and the hillside overlooking Forty Steps Beach. Several of these hills have land sloping down to the sea.

The exposed cliffs at Little Nahant, John's Peril, Hood's Point, Castle Rock, East Point, Bailey's Hill, and other coastal sites present dramatic rock formations. East Point, one of the highest land elevations in Nahant, is a windswept grassy promontory offering an unrestricted view of the Boston skyline to the southwest and the expanse of open ocean to the east.

The island setting and its location on the Atlantic flyway for migrating birds make Nahant an important resting and feeding spot for both landbirds and shorebirds. The need to protect the shoreline and the remaining wooded thickets, fields, and meadows is clear.

Although the Town is developed, there is very little commercial property, and housing consists primarily of single-family dwellings. There are no traffic lights in Nahant, and the Town Hall and Public Library constitute the "town center."

C. Water Resources

1. Drainage

There are no aquifer recharge areas in Nahant. Drainage occurs in subsurface patterns throughout the Town. Surface runoff and marshland drainage are present in the areas north and east of Nahant Harbor.

2. Freshwater Resources

There are no significant bodies of fresh water in Nahant. Bear Pond is located on the southern extreme of the central lowland meadows. Historically a coastal lagoon, it is now a series of small ponds within the Town-owned golf course. The ponds and surrounding lowlands are a significant recreational space and important to migrating birds as well. This area, which had already been radically altered through the years, was in danger of further destruction when it fell into the hands of a developer in 1988. Recognizing this area as an important resource, the citizens of Nahant had the foresight to purchase this property. This is the largest piece of open space in Nahant including fifty acres of wetlands (see **Appendix 3**, **Map 6**: "Nahant Wetlands"). The Open Space Committee and other conservation-minded citizens are committed to keeping as open space the remaining lowland meadows contiguous with the golf course.

3. Saltwater Resources



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The coastal waters of Nahant include Nahant Bay, Massachusetts Bay, and Broad Sound. These waters support commercial and recreational fishing and boating. Nahant Beach, Short Beach, and Tudor Beach as well as the many coves are used for bathing. The Metropolitan District Commission manages Nahant Beach. There is extensive public parking and the beach is frequented by both local and regional visitors.

The highest standards of quality must be sought for the coastal waters, which are perhaps Nahant's most important resource. These waters have been subjected to contamination from commercial sources as well as sewage. The future quality of our shores will depend on vigilance and thoughtful planning.

D. Vegetation

1. <u>Historical Overview: Land Use and Vegetation Types</u>

Today there are no forests and there are no woodlands of significant size in Nahant. The largest wetland area, extending from the Lowlands (the "Great Marsh," "The Meadows") ballfields to the southern extremity of the golf course, has been so altered over the past two centuries that it is difficult to visualize its original vegetative cover without recourse to historical documents and old pressed-plant collections. There are no "agricultural lands" unless one includes the lobster-harvesting grounds immediately offshore and the lobster-trap storage areas near the Lowlands ballfields. Nonetheless Nahant does contain within its small area a surprising variety of types of open space that are utilized as or suitable for conservation and/or active and passive recreation, including barrier beach, sandy shore, dunes, rocky shore, rocky highland, dry meadow, wet meadow, open and wooded wetland habitats, recreational parks and fields, and scenic landscapes. How the land has been settled and used has influenced the way it appears today.

In the early 1600s, Nahant was a heavily wooded peninsula connected to the mainland by an unstable sandy beach that itself may once have included an extensive, wooded wetland. A description of Nahant in *New England's Prospect*, a 1634 work by William Wood, hints at what the peninsula may have looked like in the early 1630s:

The next plantation is Saugus [i.e., Lynn],... This Towne is pleasant for situation, seated in the bottom of a Bay, which is made on one side with the surrounding shore, and on the other with a long, sandy Beach. This sandy beach is two miles long at the end, whereon is a necke of land called Nahant. It is sixe miles in circumference, well wooded with Oakes, Pines and Cedars. It is beside, well watered, having beside the fresh Springs, a great Pond in the middle, before which is a spacious Marsh. In this necke is store of good ground, fit for the Plow; but for the present it is only used for to put young Cattle in, and weather Goates, and Swine, to secure them from the Woolues.... (Lewis and Newhall [1890]:144)

Wood also enumerates—in the form of a short poem—the different species of trees found in the Lynn region, but does not differentiate between what is now modern Lynn and the surrounding areas that were originally a part of it. Alonzo Lewis, writing in the 1840s, further whets our interest in what once existed, and in what might have continued to be:

Most of the trees and plants common to New England, are found at Lynn, and some which are rare and valuable. The principal trees are white and pitch pine, white and red cedar, oak, walnut, maple, birch and hemlock. One of the most common shrubs is the barberry, the root of which is used in dyeing yellow, and the fruit is an excellent preserve. Many tons of sumach are annually gathered, and used in the manufacture of morocco leather. Whortleberries are very plenty in the pastures and many hundred



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bushels are annually gathered. Blueberries, raspberries, blackberries, and cranberries, are also common. The forests, fields, and meadows, are rich in the abundance and variety of medicinal plants, and the town [i.e., the greater Lynn area] presents a fine field for the botanist. (Lewis and Newhall [1890]:78-79)

After the arrival of European settlers, the trees on Nahant were virtually eliminated and the peninsula was used largely as pasture. In 1657, Lewis writes, an important decision was made at a town meeting in Lynn:

"It was voted that Nahant should be laid out in planting lotts, and every householder should have equal in the dividing of it ... and every person to clear his lot of wood in six years, and he or they that do not clear their lotts of the wood, shall pay fifty shillings for the towne's use...."

This record is valuable.... [I]t furnishes an explanation of the cause and manner of Nahant being so entirely cleared of the beautiful wood which once grew upon it—and it shows that Nahant was early planted with English corn, that is, with wheat. (Lewis and Newhall [1890]:240-241)

The cutting of wood continued over the years. Finally, in 1698, after a "sore and long continued drought" in 1697 (and perhaps realizing the unfortunate consequence of cutting down too many trees?), the town of Lynn, in an ironic reversal of the 1657 decision, "ordered that no person should cut more than seven trees on Nahant, under a penalty of forty shillings for each tree exceeding that number" (Lewis and Newhall [1890]:298, 299).

In 1706, in a reorganization of the way in which property in Lynn was allocated, Nahant was officially divided into "ranges," many of whose boundaries eventually became the streets that exist today (Lewis and Newhall [1890]:306-308; Wilson [1928] 1977:28-29; Paterson and Seaburg 1991:34-36). But Nahant remained largely unsettled until the early 1800s. By that time it had become a destination for short-term visitors, who were attracted by its scenery and recreational opportunities. As the number of visitors increased, boat landings were built, hotels and boarding houses went up, and homes were established by both summer and year-round residents. In 1823, the Nahant Hotel opened at East Point and operated until it was destroyed by fire in 1861; it was just one of many such establishments that existed in Nahant over the next century or more.

In 1825, after constructing his summer cottage in the center of town, Frederic Tudor began, with varying degrees of success, "what became a lifelong campaign to plant trees on treeless Nahant":

Balm of Gilead trees were the first he planted, some 150 of them.... By 1832 he had 3,358 trees growing in his nursery.... Within two years he had some 4,000 trees in cultivation....

In the fall of 1834 he wrote a number of summer residents offering them these young trees ... for free if they would plant them on their properties.... Some did.... Soon he began to hope he would have all 4,000 set out. (Paterson and Seaburg 1991:131-132)

Fred A. Wilson, citing E. J. Johnson, describes this replanting of Nahant as follows:

Tudor's first effort in public improvement was to plant a row of Balm of Gilead Trees on each side of the main road from the hill near Short Beach to Summer Street. Prior to this William Wood and Thomas H. Perkins had planted elms from Summer Street to the Breed house, now the Whitney Homestead, along the main road. There are many trees, like the row of maples on Spring Road, planted by Mrs. J. P. Putnam, which were established in later years, but it may be said that the street trees of Nahant that are as



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old as Tudor's work here are the results of his efforts. This is especially true of the magnificent elms on Nahant Road. (Wilson [1928] 1977:61)

The "magnificent elms" were all destroyed by Dutch elm disease in the next century.

Tudor acquired and developed extensive properties to the west of his cottage:

[H]e owned a large portion of the western half of Great Nahant, and Fox Hill ... and other considerable areas on Bass Point. Among his holdings was the Great Marsh ... reaching from Short Beach out across what is now the Town Play Ground and Bear Pond.... Tudor built ditches through these marshes and made them largely usable. (Wilson [1928] 1977:63)

Here, and elsewhere, he built several orchards, and the many apple trees that continue to sprout and grow throughout the Town could be part of this legacy. And in 1859 he began construction of an amusement park, the Maolis Gardens, which for a few years was a part of the tradition of entertaining visitors who came to admire the beautiful scenery.

As the Town's population grew and the land was bought up and developed, a debate evolved over access to the Town shoreline. Wilson cites a printed report of 1856 by a three-man committee appointed "to make investigations in relation to the rights of the town in the undivided and unimproved lands within its corporate limits" (Wilson [1928] 1977:205). Then, in 1859, at its annual meeting, the Town passed the following resolution:

Whereas the ownership and fee of the beaches, shore and strand surrounding the town, and also of the ground over which the highways were laid out ... are claimed as the property of the town, and whereas divers persons owning land abutting ... have obstructed the access thereto...;

Voted, That this town claims to be the owner in fee of the said beaches, shore and strand, and of the soil on which the said highways are laid out, subject always to the public rights....

That the town disputes and denies the right of any person or persons to the exclusive use of the said beaches, shore or strand [etc.] ... and also the right of any person or persons to exclude the public therefrom or from the use and enjoyment thereof.... (Wilson [1928] 1977:207-208)

Concerning the "Peripheral Path" on the northeast shore, Wilson says:

At the March town meeting in 1874 it was voted to build a plank walk around Mifflin's Point [probably Hood's Point, to the left/north of Bass or Forty Steps Beach] to connect with the one built by George P. Upham. Since that time the town has maintained this plank path and its protecting guard rails or fences. It has been suggested that the town lay out a town footway the entire length of this path as it now runs, from Bass Beach around to Stony Beach at the northeastern end of Summer Street, and thus insure it remaining a public path such as it has been for so long a time. The path long antedates the building of the plank walk, and reaches back so far that no one can discover a time when it was not used by the public.... (Wilson [1928] 1977:208)

(This "Peripheral Path" is the first of <u>two</u> such paths; "no. 2" runs between Swallow's Cave and Curlew Beach on the south coast.) A public path to and around East Point had also long been the subject of debate:

In 1865, on a petition of residents, including some summer residents, a road one rod wide was laid out all around the shore at East Point. At once arose a discussion as to the location and difficulties of building, which delayed construction so long that ... laying out was to be done over again. John E. Lodge [the owner of the property at East Point] died in 1862, but compromise overtures were made by his heirs.... [T]he town did not really want a road around the point but only a footpath access to it. It was proposed to



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cede a right of way between the two parts of the estate ... together with an adequately long path around the cliffs. This arrangement seems to have pleased everybody and was accepted. It was some time later that it was discovered that the town ... had given up a permanent way for a way existing only at the will of the owners.... A cure now, as for the path around Mifflin's Point, is to lay out a town footway, and again damages would appear to be simple, because no person has ever lived there without the existence of this public privilege... (Wilson [1928] 1977:209)

In 1905 the Town purchased "the low land behind Short Beach for a public playground," and, in 1906, "Marjoram Hill, near Tudor Wharf, for a park" (Wilson [1928] 1977:209). (On the Nahant and Lynn Street Railway constructed in 1905, see Section 3B above.)

As seen in the activities of Frederic Tudor, how the land was perceived and used has had a profound effect on the vegetation that has been established in a given area:

Tudor built ditches through the marshes he owned, both this playground and the marsh north of Bear Pond.... The land company [i.e., the organization set up to handle Tudor's estate] deeds for sales near these ditches have stipulated that the drainage is not to be hindered. The ditches still function, but need clearing occasionally. They accomplished their purpose, and both pieces of low ground are dry enough most of the time, though often holding a very wet condition late into the springtime. (Wilson [1928] 1977:210)

The maintenance of estate gardens also may have had an influence on the character of the Town's vegetation. Paterson and Seaburg detail the activities of professional nurserymen at the turn of the nineteenth century to the twentieth, including Thomas Roland, who is said to have had twenty greenhouses in Nahant. Roland collected acacia trees as a hobby and grew them "in one of his Nahant greenhouses for fifteen years." Many estates had private professional gardeners (Paterson and Seaburg 1991:339-340).

In walks around the Town through the seasons, one can perhaps see the legacy of earlier landscaping everywhere in the flowering shrubs and vines alone: Amur ampelopsis, barberry, bridal wreath, Deutzia, Forsythia, honeysuckle, lilac, matrimony vine, mock orange, privet, horticultural roses, multiflora rose, rugose rose (beach rose), rose of Sharon, Scotch broom, Weigelia, and woodbine/Virginia creeper—to name a few.

It is clear that sightseeing, "passive recreation," and the establishment of large estates have played important roles in how public and private lands in Nahant have been perceived and used. Something should also be said about the influence of organized outdoor athletic activity. The Nahant Golf Club "dates back to the early [18]90's":

This [the Club's course] was laid out on the "Great Marsh," starting from Emerald Street and continuing toward Bear Pond and westerly to Mitchell's Corner. After a few years the course was extended across Spring Road and up the hill west of the Maolis Club House. This was before this latter land was developed into house lots with the roads built as they now run. Still later, perhaps around 1910, this newer part was given up and the course continued for a while as it was originally. It was always a short course.... (Wilson [1928] 1977:355)

A golf club was reintroduced in August 1929, through the sale of bonds. Despite the Great Depression, the golf course continued in use to 1940, when military barracks were constructed on the "first hole of the Nahant Golf Club" (Paterson and Seaburg 1991:381-382, 398).



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The first organized lawn tennis tournaments began in Nahant in 1874. In subsequent years, organized tennis, lacrosse, and baseball became popular pastimes. In the 1880s tennis courts and a baseball diamond were set up for the benefit of summer residents in the field in front of the Tudor house, and athletic activities became regular events there, involving both summer and year-round residents (Wilson [1928] 1977:360-362; Paterson and Seaburg 1991:185-195).

Thus, a pattern of land use can be seen to have evolved, and this has influenced the character of the Town's vegetation: (1) The inland portions of the Town have been developed into residential areas and largely kept planted with shade trees, hedges, and flowering shrubs and vines. (2) Wetlands were largely drained and adapted to agricultural and then residential and recreational uses. (3) East Point and Bass Point, among other locations, were for many decades the sites of hotels and public amusements; long after the decline of the "visitor industry," portions of these areas—namely Lodge Memorial Park and Bailey's Hill—have remained as open space for passive recreational use by the public. (4) The construction of houses close to the ocean and the gradual natural deterioration of the high ground along the coast have made access difficult in places, but the less-frequented beaches and rocky coastline for the most part remain legally accessible to the public (via the "Peripheral Paths" and some streets that follow the old "range" boundaries). With the exception of very limited public facilities, a hotel on Nahant Beach, and the Coast Guard Station, there has never been permanent housing directly on the public beaches, although there is a long history of debate over public rights of way through private property to the ocean, and this debate continues today. (5) There is a long history of outdoor recreational activities, which have come to include boating, bathing, SCUBA diving, board sailing, picnicking, fishing, tennis, baseball/softball, golf, birdwatching, walking, jogging, and general passive enjoyment of the natural surroundings.

2. Inventory of Plants and Plant Communities of Nahant Today

Few historical sources are known to this Committee specifically on the botany of Nahant and its environs. Two works by Cyrus Mason Tracy were consulted: "Noticeable Traits of the Flora of Nahant," a very brief journal article published in 1858, and *Studies of the Essex Flora: An Enumeration of All Plants Found Growing Naturally within the Limits of Lynn, Mass., and Towns Adjoining...,* a monograph published in 1858 and updated in 1892. (See References, 4D.) There are also a few known pressed-plant collections containing specimens purportedly collected in Nahant (personal herbarium collections were once a widespread popular pastime). Many of the species in these collections exist in Nahant today, but a good number of beautiful or unusual ones also cannot be found—for example rhodora (*Rhododendron canadense*), pink lady's-slipper (*Cyprepedium acaule*), and possibly several other orchid species. If it can be properly documented that these specimens were collected *only* at Nahant, then in these collections we have a unique record of what the Town may have looked like and of all that has been lost in the course of the substantial human activity in Nahant over the past four centuries.

In the *Nahant Open Space Plan* of 1989, there is an "Open Space Inventory" of thirty-seven "Recreation Land[s] and Sites" and "Dedicated Conservation Lands." In the present *Plan* is an "Inventory of Lands of Conservation and Recreation Interest" (see **Appendix 4**), which retains the <u>same site numbers</u> as the 1989 *Plan*, but under the new headings "Private Lands" and "Public



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and Nonprofit Lands." Today, as then, there is no "prime agricultural land" and no "forest land." Not all of these sites are detailed in what follows; instead a general description is given for a few selected sites of greatest interest, with an emphasis on "natural" areas or public open spaces. The parenthetical number after each site name corresponds to the site number in both the original "Open Space Inventory" of 1989 and the "Inventory of Lands" in the 2000 *Plan*.

The plant listings below are of course incomplete, and are to be understood as a "serious amateur" effort. Most of the identifications are offered with confidence, but some are tentative—especially where some trees, shrubs, and vines are concerned. Where exact species were difficult to determine, only a general category is given (e.g., "aster," "honeysuckle," "maple," "oak," "pine," "native wild rose").

Most of the "central" portions of the Town (i.e., away from the coastal periphery) are developed as residential homes and some small businesses. The vegetation of these areas consists typically of lawns often bordered by or interspersed with common shrubs (e.g., barberry, Deutzia, Forsythia, privet), planted "street" trees (e.g., ash; beech; white birch; horticultural cherries; European chestnut; elm; hawthorn; linden; black locust; Norway, sugar, silver, and sycamore maples; oaks; pines), and native or introduced trees that are more-or-less "naturalized" throughout the Town (black/rum cherry, crabapple, black locust, red maple, and poplars).

(a) Nahant Beach or Long Beach (site no. 16 in the 1989 and 2000 Plans) is a sixty-six-acre stretch of barrier beach, managed by the Metropolitan District Commission, located between Little Nahant and the traffic rotary on the Lynn-Nahant boundary. It is used as a public recreational resource throughout the year, but especially during the summer. The beach itself is bordered all along its western side by a parking lot and causeway, and the causeway is separated from the tidal flats of Lynn Harbor by a retaining wall. The dominant species on the beach is American beach grass (Ammophila breviligulata), which helps to hold together the low sand-dune structure that runs the full length of the beach. Other notable species include seaside goldenrod (Solidago canadensis); beach pea (Lathyrus japonicus or maritimus); white poplar (Populus alba); rugose or beach rose (Rosa rugosa); and wormwoods, including the non-native dusty miller (Artemisia stelleriana) (low, spreading, with pale, downy leaves). The first specimen of the latter to be "noted in eastern America was at Nahant ... in 1877" (Fernald 1900).

Of special interest in this location is the frequent year-round appearance of a locally abundant but globally very rare mutant algal species, *Pilayella litoralis*, which may at times cover large portions of the beach with a thick brown mat. Unsightly when it occurs in large blooms close to shore, and foul-smelling when it is buried in the sand and decomposes, it is otherwise apparently not harmful to humans and may possibly benefit some species of birds that frequent the seashore by containing small organisms that the birds feed upon.

The vegetation of Nahant Beach is generally a combination of native and introduced species acclimatized to a seashore environment, and there are a number of adventitious species that one can expect to find in places that have been disturbed or where the soil is poor. ("Disturbed" here is intended as a botanical term that means significantly altered from the original natural state.)



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Nahant Beach is extremely important as a recreational resource for bathing and sunbathing in summer, and walking, jogging, kite flying, board sailing, surfing, and occasionally clam digging (for which a permit is officially required) throughout the year.

(b) Short Beach (site no. 25) is a six-acre sandy beach facing east between Little and Big Nahant. The former U.S. Coast Guard Station and U.S. military recreational facility (1.4 acres) stands about midway along the beach. The vegetation is predominantly grasses and adventitious herbaceous plants, interspersed with a few planted or naturalized trees, shrubs, and vines such as Asiatic/Oriental bittersweet, bayberry, pine, beach plum (*Prunus maritima*), white poplar, rugose rose, and staghorn sumac. A few of the same sea-beach plants that are found along Nahant Beach (such as beach pea) and the beach at Lynn Harbor (see site k below) can be found along the stony margin between the sand and the high ground, and typically several kinds of adventitious plants along the beach at all levels. Of interest here in the spring is mossy stonecrop (Sedum acre) (yellow), growing in small mats on the cobblestones on the Little Nahant side; clumps of dyer's greenweed (Genista tinctoria) all along the high ground; and Deptford pink (Dianthus armeria), which used to be seen throughout the high ground toward Big Nahant until regular mowing occurred in recent years. The same Pilayella litoralis that periodically covers large portions of Nahant and Lynn Beaches also occurs at Short Beach in large quantity in the shallows and on the beach, mostly on the Little Nahant side. This Committee has not yet been able to find downy Hudsonia (Hudsonia tomentosa), for which there is historical mention (e.g., by Tracy [1858] and by Wilson [1928/1977]).

Short Beach is heavily used in summer for bathing, sunbathing, and recreational boating.

(c) The *Lowlands* (the "Great Marsh," "The Meadows") (not to be confused with an estate known by that name that once existed at East Point) is an extensive area of largely drained wetland, located roughly between Short Beach to the north and Bailey's Hill to the south, and between the Johnson School to the west and Emerald Road to the east. Occupying some 59.31 acres, it is divided into the following sites: the Golf Course (site no. 4) (27 acres), Flash Road Playground (site no. 5) (1.4 acres), Lowlands Playground (site no. 7) (0.5 acres), Lowlands Ballfields (site no. 9) (4 acres), Lowlands Open Space (site no. 10) (25 acres), and Spring Road Basketball Court (site no. 13) (1.41 acres).

The Lowlands could be cited as a case study in the spread of invasive exotic plants: abundant here are Asiatic/Oriental bittersweet, Japanese knotweed, the tall *Phragmites* grass, and multiflora rose. (Purple loosestrife is also present, but only marginally.) The proliferation of these premier invasives may have some relation to the fact that a portion of the Lowlands was in decades past used as the Town Dump and is now set aside as a composting area for plant rubbish collected from around the Town. The dominant plant is the ubiquitously invasive *Phragmites*, which might not flourish as well as it does if the Lowlands had remained an undrained wetland. Trees include black/rum cherry (*Prunus serotina*), black locust (*Robinia psuedoacacia*), maples, pine, and a species of sumac (?). Flowering herbaceous plants include many typical adventitious "weeds." Otherwise, the nonnative yellow iris has been seen on the edge of the Lowlands ballfields, while the native groundnut (*Apios americana*), with its strange, hood-like blossoms,



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was observed along the rear access road to the Department of Public Works facility, and Jerusalem artichoke (*Helianthus tuberosus*), with its tall stalks and brilliant yellow flowers, has in recent years been seen in the area that, at this writing, is used for lobster-trap storage.

(d) The *northeast coast*, which includes the area running from John's Peril to Stony Beach (site no. 26), is characterized by rugged, difficult terrain and spectacular scenic views. Cobblestone beaches are nestled in small coves at the foot of cliffs, ledges, and, occasionally, retaining walls. Along the upper margins, grassy lawns and tangled underbrush meet bare rock ledge. Increasing vegetation combined with occasional erosion make the area from John's Peril to Ocean Street difficult of access. Much of the old stone wall below Marginal Road between Ocean and Hood Streets, built by Frederic Tudor in the last century, has deteriorated and in recent years has been amended with rock fill (the most recent work done in 1998).

Among the plants found here: Amur ampelopsis (Ampelopsis brevipedunculata) (grape-like, with clusters of waxy blue berries), asters, Canada Mayflower (Maianthemum canadense), blackberry, crabapple (Pyrus sp.), seaside goldenrod, huckleberry (?) (Vaccinium sp.), beach pea (Lathyrus japonicus or maritimus), poison ivy, blunt-leaved sandwort (Arenaria arteriflora), Scotch lovage (Ligusticum scothicum), woodbine/Virginia creeper (Parthenocissus quinquefolia), and yarrow (Achillea millefolium). At the foot of the old seawall between Hood and Summer Streets is an interesting stretch of saltwater marsh, dominated by salt-marsh grass (Spartina sp.), with a number of interesting coastal marine plants such as glasswort (Salicornia sp.), seaside plantain (Plantago juncoides), silverweed (Potentilla anserina), seaweeds, and sedges (and one purple loosestrife, which has persisted for years).

This area, especially the portion bounded by Ocean Street to the west and Summer Street to the east, overlooks a part of Massachusetts Bay that is a significant resting and feeding area for migratory waterfowl, including a wide variety of sea ducks.

(e) The remnant of the *Peripheral Path No. 1* (site no. 28) runs along the coast from the north end of Summer Street to Forty Steps Beach. There used to be a well-defined footpath from beginning to end, but only vestiges of it remain, principally from Summer Street to where the path would intersect with Pleasant Street, if the latter were to continue through to the coastal rock ledge. Portions of this path have badly deteriorated; one former section, which used to run through a wooded hillside above the cobblestone beach facing Saunder's Ledge, was completely eroded away by the 1980s, leaving a huge bare slide that was finally amended with sculptured landfill in 1998. Plants in this area include asters, dwarf cinquefoil (*Potentilla canadensis*), seaside goldenrod, water horehound (*Lycopus americanus*), beach pea, *Phragmites*, beach plum (a large stand at Hood's Point), native wild rose, and yarrow.

Historically, and up until the generation that came of age in the 1960s and 1970s, this path was well used and was an important area for recreational walking and sightseeing.

(f) Forty Steps Beach, historically known as Bass Beach (1.4 acres) (site no. 23), is a sand and cobblestone beach at the foot of a steep hill, between Hood's Point and Castle Rock. The periodically repaired wooden stairs that lead down to the beach from Nahant Road are all that



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remain of a stairway and boardwalk, the latter having once extended out to Hood's Point. A number of severe storms since the 1950s have necessitated the construction of a jersey barrier at the upper margin of the cobblestones and extensive filling and resculpting of the hillside above.

There is a stand of *Phragmites* at one corner of the beach, but the dominant vegetation is short grass, on the hillside, which is being overtaken by small trees and shrubs, especially staghorn sumac. Plants here in recent years have included asters, hedge bindweed (*Convolvulus sepium*), crabapple, coltsfoot, oxeye daisy, Jerusalem artichoke, hawkweed, black knapweed, motherwort, common mullein, oak, beach pea, *Phragmites*, beach plum, pokeweed, privet, and staghorn sumac. Once present but not noted since the storms of the early 1990s: common elder (*Sambucus canadensis*), water horehound, horsetail (*Equisetum* sp.), soapwort/bouncing bet (*Saponaria officinalis*), and swamp candles (*Lysimachia terrestris*)—most of these located near the *Phragmites* in a "miniature wetland" below the intersection of Nahant Road and Cliff Street.

Forty Steps Beach has been historically, and is today, a well-used bathing and sunbathing beach in summer, and is popular for viewing the scenery year-round.

- (g) The area from *Castle Rock to Canoe Beach* (site no. 21), along the seaward edge of Nahant Road, was amended with rock fill in 1998, and some of the plants that had been encroaching on the roadside have been cleared back, but in recent years, on or about the fences that have lined the road, there have been (and in some cases still persist) dyer's greenweed, matrimony vine (*Lycium* sp.), poison ivy, native wild rose, rugose rose, staghorn sumac, and the native trumpet creeper (*Campsis radicans*). On or about Canoe Beach itself may be seen seaside goldenrod (which does not cause the allergy known as "hay fever"), ragweed (which can), and wild radish.
- (h) *East Point* (8.3 acres) (site no. 3) could, all by itself, be the subject of an interesting historical study. Since the nineteenth century it has been the site of a major resort hotel, summer "cottages" and estates (including the estate of the senior Henry Cabot Lodge), and a U.S. Army Nike missile base, complete with underground bunkers and missile launching silos. Today, a good portion of East Point (including some of the underground bunkers) is occupied by the Northeastern University Marine Science Center (site no. 12), which maintains much of the land as an undeveloped ecological study area. A winding, paved right-of-way leads up a hill to the Henry Cabot Lodge, Jr., Memorial Park, which occupies the former site of the Nike missile launching pad. A small section of this public park is reserved for formal monuments to Ambassador Lodge and to former Governor of Massachusetts and Ambassador to Italy John A. Volpe, who resided in Nahant during his last years. In the mid-1990s this section was transformed from a deteriorating paved "flattop" into a sculpted rolling meadow utilizing glacial till from the Deer Island outfall pipe construction project and covered with loam. Outside the path and fence circling the meadow, the hillside descends to rugged and picturesque rock ledges.

Residents and visitors come to the site regularly for walking, jogging, birdwatching, and viewing the magnificent scenery—the "passive recreation" for which this area is now being maintained, and for which a specific *Management Plan* was created by the Open Space Committee in 1998 (see **Appendix 1**).



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In botanical terms, East Point could be described as typical of a "disturbed area"—an area where much of the natural vegetation has long since given way to human intrusions and then to the adventitious plants that typically arrive when formal human intervention wanes. Northeastern University maintains a spacious, well-kept lawn around its buildings, but from the lawn to the top of the hills covering the old bunkers, the land has become a "battleground" where introduced locust trees and native staghorn sumac compete for supremacy with exotic shrubs like Asiatic/Oriental bittersweet and multiflora rose; this competition is beginning to engulf what may be the remaining legacy of the old estate gardeners: some of the black locust trees, two rows of rose acacia bushes on the access road, and at least two kinds of cultivated rose.

A variety of trees and shrubs can be found on the westerly (more-or-less inland) portions of the hillsides here, including black/rum cherry, crabapple, elm, oleaster/autumn olive (*Elaeagnus umbellata*), and pine. Circling the boundary of Lodge Park at the top one can find in abundance poison ivy, a native wild rose, rugose rose, staghorn sumac, and, tucked among the rock crevices overlooking the ocean, a few hardy stands of bayberry. Scarlet pimpernel (mentioned by Tracy in 1858) also flourishes in the rocks.

In the 1980s and 1990s, many herbaceous plants were seen along the public access road, at the top, and on the ocean-facing periphery of East Point, including asters (among them New England aster), black-eyed Susan, chickweed, several kinds of clover, wild cucumber, dock, dyer's greenweed, daisy fleabane, goldenrods (including seaside goldenrod), hawkweed, everlasting pea, common milkweed, common mullein, pearly everlasting (*Antennaria* sp.), Deptford pink, pokeweed, Queen Anne's lace, yellow rocket, common St. John'swort, snapdragon ("butter-and-eggs"), yellow stonecrop, tansy, (bull) thistle, toadflax, wormwoods (*Artemisia* spp.), and yarrow. Some species, especially the succession-type "weeds," have declined or not been seen since the installation of the new meadow. But there are also plants in the vicinity that manage to maintain a tenuous hold (e.g., a small but tenacious stand of narrow-leaved cattail [*Typha angustifolia*] growing in puddles in the rock ledges).

East Point is a vital resource, both as a natural habitat for wild plants and migrating birds and as a passive recreational area for all the Townspeople. A continuing problem here is the failure by many (non-resident) visitors to stay within the clearly marked public right-of-way.

(i) The *Massachusetts Audubon Sanctuary* (4 acres) (site no. 32) was originally established by the Audubon Society as the "Maple Swamp Wildlife Sanctuary" but today is popularly known as "the Sanctuary" or "The Thicket." It occupies a tiny wetland area facing Willow Road at Curlew Beach. The red or swamp maple trees on the inland side give way to an open portion dominated now by *Phragmites* (some Townspeople over age fifty as of this writing may remember a time when this open portion used to be a more wooded area containing a pond). A scattering of native wild rose may still grow in the tangled open area beyond the tall grass. Between the red maple woods and the tall grass is a line of shadbush/Juneberry (*Amelanchier* sp.), which becomes quite visible in early spring when their white blossoms appear against the leafless background. Other trees include elm, other species of maple and oak, and at least one magnolia. The understory at this writing also includes greenbriar, matrimony vine, poison ivy, and possibly still some sweet



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pepperbush and highbush blueberry. Prominent herbaceous species include asters, blackberry, goldenrod, Jerusalem artichoke, jewelweed (*Impatiens capensis*), and stinging nettle.

Small as it is, the Sanctuary is somewhat difficult of access, but it is nonetheless a valuable resource for viewing birds, especially migrating songbirds. It also includes a notable aggregation of native North American plant species. This suggests that that the Sanctuary may be one part of the Town that has retained a significant degree of original native-species integrity—although plans at the Sanctuary's establishment included "initial work" consisting of "the cutting of trails, the removal of the storm-felled trees, and the planting of additional maples and of berry-bearing trees and shrubs" (Kelly 1949:[383]). In any case, the integrity that existed at the time of its designation as an Audubon sanctuary appears to be increasingly compromised by interference with the historical drainage patterns, as evidenced by the dramatic increase over the years of *Phragmites*, which has become seriously invasive throughout the Sanctuary.

(j) Bailey's Hill (4.6 acres) (site no. 1) is a prominent south-facing rocky hill surrounded by ocean on three sides. Below it, to the north, is a flat, lowland park consisting largely of a mowed lawn, and, behind that, ensconced in the opposite hillside, is a sealed concrete military gun emplacement overgrown with locust trees. The prominent trees on Bailey's Hill proper include aspen/poplar, black/rum cherry, and pine. And, hopefully, there are still one or two beautiful specimens of flowering crabapple in the more formal park below. Shrubs include bayberry, Asiatic/Oriental bittersweet, native wild rose, rugose rose, and staghorn sumac. (Beach plum has been observed to attempt a foothold as well.) Herbaceous plants on either or both hills include asters, blackberry, chicory, rough-fruited cinquefoil, clovers, dyer's greenweed, goldenrod, hawkweed, wild evening primrose, Queen Anne's lace, common St. John'swort, snapdragon, a type of spurge (Euphorbia sp.), wormwood, and yarrow. At least one species of fern abounds on and in the rocks all around the eastern side of Bailey's Hill. And a strange herbaceous plant with pinkish blossoms suggesting a mutant soapwort has flourished in recent years at the foot of the hillside below the gun emplacement.

Bailey's Hill commands spectacular views of Nahant Harbor, the Town Wharf, Lynn Harbor, and the Boston skyline. It is a popular area for walking, scenery viewing, and bass fishing. At the time of this writing it was threatened by vandalism (graffiti on the gun emplacement), unauthorized clearing of trees and shrubs on the hillside, gully erosion due to foot traffic, and unauthorized entry by vehicles onto the narrow paved path to the summit.

(k) The sandy beach at *Lynn Harborside* (3.2 acres) (site no. 24), facing Lynn Harbor and running from Black Rock Beach to Little Nahant, is a virtual "botanical garden" for adventitious plants of seaside and disturbed places, especially clotburs, jimsonweed, saltwort and other goosefoots (*Chenopodiaceae*), and wormwoods, which flourish at this site. Possibly because of its deep sand and relatively protected western exposure, it seems to be ideal for producing remarkably healthy specimens of these species. Above this margin is a low-lying dune habitat covered by American beach grass; other species include barberry, Asiatic/Oriental bittersweet, crabapple, pine, poison ivy, rugose rose, and staghorn sumac. Noteworthy offshore here is eelgrass (*Zostera marina*), a flowering plant that grows submerged in salt water. It is in evidence when it washes up on the beach, sometimes in large clumps, but another indication of its



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abundance is the presence in this area, during fall and winter, of flocks of Brandt (geese), which feed especially on eelgrass. Also, in the early fall, monarch butterflies have been observed clinging to the branches of pine trees close to the nearby roads as the day draws to a close.

There are also, in various parts of the Town, common wayside plants and old, persistent backyard garden ornamentals that have escaped to the roadsides and open spaces and become naturalized, including asters of several kinds, bellflowers (*Campanula rapunculoides* and/or *C. americana*), bladder campion (*Silene cucubalus*), white campion (*Lychnis alba*), Asiatic dayflower, dock (*Rumex* sp.), various knotweeds/smartweeds (*Polygonum* spp.), garden loosestrife (*Lysimachia vulgaris*) (yellow), wild radish, dame's rocket, and cow vetch (*Vicia cracca*)—to give a small sampling. Then there are the fleeting "visitors" that have been seen briefly and photographed in isolated sites over the past dozen years, often as only one or a very few individuals, before they have disappeared, such as blue-eyed grass (*Sisyrinchium* sp.), native wild columbine (*Aquilegia canadensis*) (briefly on the northeast coast), native wild geranium (*Geranium maculatum*), spiderwort (*Tradescantia virginiana*), native blue vervain (*Verbena hastata*), and viper's bugloss (*Echium vulgare*).

Nahant abounds in grasses, sedges, rushes, and lichens, but these (along with ferns and other non-flowering plants) are beyond the limited expertise of this Committee. The *Nahant Conservation Commission's Nahant Natural History Notes* (1969) contains some relevant discussions on mushrooms (Barbara Paine), lichens (I. Mackenzie Lamb), and benthic marine algae (I. Mackenzie Lamb and Martin H. Zimmermann).

3. Endangered Species / Species of Special Concern

In the 1989 *Nahant Open Space Plan* is a copy of a letter from the Massachusetts Natural Heritage Program to the chair of the Open Space Committee concerning the possibility that historical records may indicate the existence in Nahant at some time of two very rare plants that were State-listed as "Species of Special Concern": **seabeach dock** (*Rumex pallidus*) and **knotted pearlwort** (*Sagina nodosa*). Further investigation is needed to confirm the historical and current presence of these species. (They have not yet been identified here by the present Committee.)

E. Fisheries and Wildlife

The offshore waters of Nahant support fisheries of commercial and recreational importance. Lobster fleets recently recorded catches of more than 30 million pounds per year from Cape Ann to Plymouth. There is growing concern about the potential negative impact on the lobster industry of the recently constructed outfall for the new Massachusetts Water Resources Authority (MWRA) sewage treatment plant. The finfish populations in Nahant waters include striped bass, bluefish, cod, flounder, mackerel, and pollack.

The tidal flats in Broad Sound are closed to clamming; however, the cleanup of Boston Harbor may some day make it possible for shellfish to be harvested. Recently, sea urchins found in the offshore waters of Nahant have been harvested commercially.

Harbor seals can sometimes be seen swimming along Nahant shores, and at low tide the seals crowd each other on exposed rocks. Since most of the land in Nahant is developed, suitable



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wildlife habitat is limited. Muskrats inhabit the wetlands, and skunks, opossums, woodchucks, and raccoons find a way to coexist. Rats, mice, garden snakes, and an abundance of gray squirrels can be found in residential areas throughout the Town.

Birds constitute the most significant wildlife of Nahant. The beaches and mudflats are a critical habitat for gulls, terns, and shorebirds. In winter, the waters surrounding Nahant support most of the species common to New England including gulls, loons, grebes, cormorants, ducks, and geese. Many of the common breeding birds of Massachusetts nest in Nahant, but it is more important for migrating birds. Known as a "migrant trap" due to its strategic ocean location on the Atlantic flyway, Nahant is an important resting and staging area (Drury 1969). During spring and fall, the variety and numbers of passerines is impressive, and the numbers of shorebirds can be in the thousands. During the spring of 1983, for example, a research effort conducted by two nonprofit organizations, the Massachusetts Audubon Society and Bird Observer of Eastern Massachusetts, recorded seventy-six species of landbirds in Nahant including twenty-two species of warblers. This plentiful and diverse birdlife constitutes an important dimension of the natural environment in Nahant. (See **Appendix 5**, "Birds of Nahant" and "List of Endangered, Threatened, and Special Concern Bird Species Occurring in Nahant.")

The rocky and sandy shores, mudflats, salt marshes, and eelgrass beds support a variety of crustaceans, sea worms, and larvae of marine organisms.

F. Scenic Resources and Unique Environments

1. <u>Scenic Landscapes</u>

Despite its small size, Nahant is blessed with abundant scenic resources and unique environments (see **Appendix 3**, **Map 7**: "Map of Nahant Past and Present"). **East Point**, at the eastern extremity of the peninsula, is, despite its small area, a scenic gem with its steep cliffs and its spectacular view north to Marblehead and Cape Ann and south to Boston, Hull, and beyond. At **Bailey's Hill**, another prominent high point of land overlooking the ocean, vegetation has been allowed to revert to a more natural state, except for a paved path to the top of the hill. In the open field at the base of the hill is a gazebo that is used for summer concerts.

The small and picturesque **Nahant Harbor** is ideally situated in a sheltered cove. The harbor supports a fleet of sailboats and a program of instruction in the art of sailing for Nahant youth and adults. Yacht racing has a long tradition in Nahant, with regattas sponsored by the Nahant Dory Club having been established around 1894.

The Nahant Open Space Committee has planned a **walking/biking trail system** through the central lowland meadows to Bailey's Hill. The trail is expected to connect Little Nahant and Big Nahant and include a path for recreational walking in a natural setting. This proposal has received enthusiastic support from citizens and Town officials.



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The Town-owned **golf course** provides a more directed recreational opportunity. The largest inland open space in Nahant, the golf course represents a successful effort by Nahant citizens and officials to save this wetland from further development.

Nahant is fortunate to be the home of the **Northeastern University Marine Science Center**, located at East Point. Through their research on the surrounding ocean and the life that it supports, the scientists working at the Center have made the offshore waters of Nahant one of the most thoroughly studied marine environments in Massachusetts. The Center's laboratory is a local, regional, and national asset.

2. Geologic Features

Almost an island—connected to the mainland at Lynn only by its causeway—Nahant is a natural tombolo or sand spit. Tombolos are relatively rare in nature (another famous example is found in Hong Kong). During severe storms, the causeway tombolo is sometimes flooded, cutting off transportation to the mainland and making Nahant virtually an island. During storms of even greater severity, Nahant may for a time become three "islands."

Nahant is situated on the dividing line between the predominantly rocky northern shore and the predominantly sandy southern shore of New England. Because of its unique location and its small land area of little more than one square mile (above the high-water mark), Nahant either includes or is bounded by all the major marine coastal habitats: sandy beach, rocky shore, saltwater marsh, marine mudflat, and eelgrass bed.

Nahant Beach and Short Beach are broad, sandy, barrier beaches with Broad Sound on one side and open ocean on the other. At Forty Steps Beach, the view in the wake of ocean storms is one of surf pounding against the impressive rock formations at Hood's Point and Castle Rock.

The Precambrian fossils found at East Point in the vicinity of Lodge Park are extremely rare (described in section 4A). The Cambrian era, some 570 million years ago, was originally considered the first geological era in which life existed. After further exploration and research, it was discovered that some fossils appeared to predate this period—before life was supposed to have existed—so there was nothing left to do but label these fossils as "Precambrian."

3. Cultural, Ecological, and Historic Areas

Throughout its history, people have been attracted to Nahant by its stunning geography—cliffs and beaches, hills and lowlands, all surrounded by the sea.

For millennia, Native Americans appreciated Nahant, fishing and summering here. It was possibly Nahant where a Norseman, Thorwald, came ashore in A.D.1004, saying, "Here it is beautiful and here I should like to fix my dwelling" (Wilson [1928] 1977:16). By the early 1600s European settlers were grazing their livestock and fishing in Nahant, and later in the same century they erected dwellings here and began mining gabbro from "Black Mine" (near the northeastern end of Summer Street). This rock was used as flux at the Saugus Iron Works. In the 1700s Nahant was inhabited by a small number of colonists, hosting visitors who came to enjoy the natural beauty of the island, especially during the summer. Hotels and summer cottages



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flourished in the 1800s as more people came here to refresh themselves by, and in, the sea. Poets (Henry Wadsworth Longfellow), naturalists (Louis Agassiz), and statesmen (Henry Cabot Lodge, Sr. and Jr.) strolled the beaches, hills, and Cliff Path, studying and writing about the natural wonders of Nahant.

The twentieth century has seen tremendous growth in the number of year-round residents—people who appreciate Nahant for its beaches, parks, fields, the Town Wharf, Bailey's Hill, Swallow's Cave, East Point, The Thicket, and historic buildings and places. (The Post Office, Town Hall, Public Library, and Henry Cabot Lodge Villa are on the National Register of Historic Places, and Ellingwood Chapel and Greenlawn Cemetery have been nominated for this status.)

4. Areas of Environmental Concern

Nahant has no state-listed Areas of Critical Environmental Concern. But it is a favorite stopover site for migrating birds, and for the monarch butterfly. The Massachusetts Audubon Society recognized this fact when it established the Maple Swamp Wildlife Sanctuary, now known as "The Thicket." As Nahant treasures tend to be, The Thicket is a very small place. The swamp today is a low-lying area containing brackish water and in need of some restoration. During the spring and fall migrations it is especially rich in birdlife.

G. Environmental Problems

1. Hazardous Waste Sites

There are no documented hazardous waste sites in the Town of Nahant.

2. Landfills

An old, inactive landfill site located off Spring Road is currently used as the Town composting area.

3. Erosion

Erosion is an ongoing process in Nahant. The Town is built on a group of three large masses of bedrock called Nahant Gabbro, connected originally by sand spits and natural marshland, much of it now filled or altered. The topography changes during storms, and this is a problem in locations where houses have been built in the "soft" areas between the gabbro hills. Some portions along the northern coast between John's Peril and Forty Steps Beach have seen considerable erosion. This has been a problem especially along the "Peripheral Path" between Summer Street and Forty Steps Beach, and where roads or paths follow close to the ocean (e.g., Marginal Road between Ocean and Hood Streets, and Nahant Road between Cliff Street and Swallow's Cave Road). The south side of the Town is also subject to erosion in low-lying areas.



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4. Chronic Flooding

There is a salt pond at the southern end of the Kelley Greens golf course, beyond which is a barrier beach and a breakwater, constructed by the U.S. Army Corps of Engineers, protecting low-lying land from the ocean. During severe wind storms, water flows over the barrier beach and breakwater, causing flooding not only of the golf course but also of residential houses built on the low-lying adjacent land. The houses along lower Willow Road bordering the barrier beach and those along Bass Point Road frequently sustain severe damage during ocean storms. Another area of frequent storm damage is along Castle Road, lower Fox Hill Road, and Ward Road where houses have been built in what was originally marshland (see **Appendix 3**, **Map 6**: "Nahant Wetlands"). Much hardship and expense could have been avoided if these houses had not been built in these areas.

5. Sedimentation

Much sedimentation takes place in Lynn Harbor, and the channels to Lynn Harbor and to the Saugus River (e.g., the western channel) are periodically dredged.

6. Impact of Development

Without the imposition of a moratorium, many more lot subdivisions will occur (see section 3D). Over the years, proposals for the construction of multiple-unit housing have been so frequently defeated at Town Meetings that, fortunately, few such proposals are offered any more. Nahant, with an area of a little over one square mile, has a population of almost four thousand; nearby Winthrop, with one and a half square miles, has some seventeen thousand people. This kind of crowding could happen to Nahant if the Townspeople do not remain vigilant.

The seawalls along Tudor Beach interfere with the natural barrier beach environment. They were built to protect the homes in this flood zone. During major storms many rocks are forced up to the walls and remain there, covering the sandy beach. Under natural conditions, these rocks would pile up beyond the area occupied by the seawalls, leaving the beach intact and forming a barrier to storm damage as they do at Short Beach.

7. Ground and Surface Water Pollution (Point and Non-Point)

The thirty-odd private (home) sewage outfalls that used to exist were closed years ago, and today all Town sewerage is sent under the causeway to Lynn, where the Lynn-Nahant-Saugus-Swampscott sewerage treatment plant gives secondary treatment to Town wastewater (see Section 3D.2.c above). Stormwater runoff, however, is a different problem. Part of this problem involves dog waste: although there is a "pooper-scooper" law requiring that dog owners clean up after their pets on the public ways, this law is not always obeyed.

Runoff from the streets goes directly onto Tudor Beach and other beaches. Catch basins do exist in some places, and they are supposed to be cleaned regularly. One area in particular where this is a problem is The Thicket, because of the polluted runoff from Wharf Street and the other ways adjacent to The Thicket. As of this writing there is a discussion in progress between the



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Town and the Massachusetts Audubon Society, which owns The Thicket, concerning a joint project to clean up this runoff.

8. Ocean Water Pollution

Because Nahant is a peninsula that extends more than two miles out into the ocean, it is particularly vulnerable to pollution from surrounding sources. A favorite method for other cities and towns to dispose of their wastes seems to be to "send it out to Nahant." The creation of Safer Waters in Massachusetts (SWIM) in 1984 was sparked by the discovery that Lynn had a tentative waiver to release inadequately treated sewage into Broad Sound, south of Nahant. As a result of vigorous campaigning, the Secondary Sewage Treatment Plant was activated in 1991 to treat wastewater from Lynn, Nahant, Swampscott, and Saugus. To complete this process and to ensure that our waters remained clean, SWIM fought for Secondary Treatment and effective cleanup plans for Greater Boston and Salem.

In April 1998, at an EPA-sponsored public hearing at the Nahant Town Hall, vigilant Townspeople rejected a proposal to take contaminated dredging spoils from Boston Harbor and dump them between the Boston sewage outfall site and East Point, Nahant. (The proposal was subsequently tabled; a similar hearing was conducted in Salem in July 1999, with a similar outspoken citizen response.) The Town of Nahant and SWIM continue to work to protect the ecology of Nahant Bay, Lynn Harbor, Boston Harbor, and Massachusetts Bay.

The effective monitoring of the various sewage outfalls and of the quality of the waters around Nahant is a continuing concern. Fortunately, with Northeastern University Marine Science Center located in Nahant, we are learning more about the ecology of our marine environment, giving our attempts to protect Nahant from pollution a scientific foundation.

A recent proposal to open the coastal flats in Lynn Harbor to clam digging is being investigated by the Town and the Massachusetts Bays Program of the Massachusetts Office of Coastal Zone Management. Monitoring done on a regular basis by the Town suggests that it might be possible to open the flats. Although the Commonwealth regularly tests clam-digging flats that are already open, to see if they have been contaminated, it does not have the funding to test closed flats that potentially could be opened. Therefore, in order to open the flats, the Commonwealth will have to be persuaded to change this self-defeating policy.

Nahant is vulnerable to small oil spills that come from boats and from the illegal dumping of crankcase oil into street drains. Boat owners are supposed to empty sewerage from their holding tanks at designated pump-out stations, but they do not always comply with the law. More careful observance of the law would help ameliorate Nahant's water pollution problems.

Oil spills are a potentially serious problem for Nahant because of its proximity to major channels of delivery of oil into Boston, Lynn, and Salem. Nahant is working to set up an Oil Spill Contingency Team with the assistance of the U.S. Coast Guard, so that the Town would be prepared in the event of an oil-spill emergency.

Liquefied natural gas is transported in tankers along ocean routes that are all too near Nahant, and should there be a spill from one of these tankers—or, for that matter, a rupture of the liquefied natural gas storage tank adjacent to the Nahant causeway—the escaped liquefied



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natural gas, which is heavier than air, could spread out over a large enough area to blow up the entire square mile occupied by the Town of Nahant. Very few people seem to be concerned about—or even aware of—this potentially very serious problem.

Anything that can be done locally to ensure that gas and oil are transported safely and that alternative sources of energy are explored would be of actual or potential importance to the protection of the environment of Nahant.

9. Air Pollution

Air pollution is a serious problem not only for the ambient air in Nahant, but also for the waters surrounding Nahant. Approximately a third of pollution in the ocean comes from pollution in the air (roughly another third comes from point sources and another third from rivers and non-point sources). Most of the air pollution problems in our area could be characterized as energy problems. There are efforts under way to clean up the coal-fired power plants that are one of the major sources of air pollution. The old power plants were grandfathered when the Clean Air Act was written in 1970, so that only new power plants were required to make use of the latest technology. The assumption was that in thirty years these power plants would be cleaned up, but they remain a serious threat to air quality. Another major source of air pollution is motor-vehicle exhaust. Any work that can be done locally to encourage alternate energy sources, either for electric power or for automobiles, would help alleviate both air and water pollution in Nahant.

10. Noise Pollution

Nahant suffers from excessive noise from aircraft taking off from Logan Airport in East Boston. Massachusetts Port Authority (MassPort) noise abatement rules require planes to maintain a runway heading until they reach Revere Beach, then turn to the right and head over the middle of the Nahant Causeway. From there they are supposed to continue well past Nahant before turning south. This plan prevents aircraft from flying directly over any populated area in Nahant. Unfortunately, many planes take a shortcut, often causing them to fly right over the Town at low altitudes, thereby reducing their flight time by one or two minutes but also creating, several times a day, frequent severe noise pollution for Nahant residents. If the airlines obeyed existing regulations, the Town would not have a noise pollution problem.

The Nahant Airport Noise Abatement Committee has met with Massport, the F.A.A., pilots, and the Logan Airport control-tower staff to encourage them to comply with the rules. Although that committee has been somewhat successful in helping airport officials to recognize and, at times, reduce this serious problem, airplane noise is currently at an all-time high. Since MassPort is unable or unwilling to enforce its own noise abatement rules, its proposal at this writing to construct an additional runway at Logan Airport is cause for increased concern.



Nahant Open Space and Recreation Plan 2000

SECTION 5. INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST

Utilizing the "Open Space Inventory" that was included in its 1989 *Plan*, the Open Space Committee conducted a reappraisal of the Town's open space, recreation land, Town-owned land, and privately owned land in a natural state. The results of this reappraisal may be found in **Appendix 4** in an "Inventory of Lands of Conservation and Recreation Interest: Matrix," along with a detailed "Description of Sites" (describing suitable activities, location, access, and condition) and a "Map of Sites."

In addition to the offshore island Egg Rock, there are currently only three areas in Nahant that are protected in perpetuity: Nahant Beach, the Audubon Thicket, and the Bangs Trust (the latter was given to the Town as conservation land). A fourth parcel, the Lodge Grant, a triangle of land at the entrance to East Point, is possibly protected. Other areas, including Lodge Park and the golf course, are used for open space / recreational purposes. These areas do not benefit from legal protection such as a conservation restriction; however, they are afforded limited protection through zoning (see **Appendix 3**, **Map 8**: "Open Space by Ownership" and **Map 9**: "Open Space by Level of Protection").

In addition, there are a few privately owned parcels in a natural state that may be appropriate for permanent protection as open space. The Open Space Committee intends to explore the options for protection and discuss them with landowners.

The following excerpt from *The Open Space Planner's Workbook*, prepared by the Executive Office of Environmental Affairs, describes types of protection:

Land is considered protected if it is owned by the town's Conservation Commission or Water Department, one of the state's conservation agencies (thereby covered by Article 97), a nonprofit land trust, or if the town received state or federal funds for the purchase or improvement of the property. Private land is considered protected if it has a deed restriction in perpetuity, if an Agricultural Preservation Restriction has been placed on it, or if DEP has placed a conservation restriction on it as part of the Wetlands Conservancy Program.... Land owned by other agencies (local school department, Department of Defense, Department of Corrections, etc.) is not protected; it can be sold for development with ease. (Executive Office of Environmental Affairs 1993:16)

Based on the description of levels of protection in the paragraph above, the Open Space Committee has developed the following categories for its "Inventory of Lands of Conservation and Recreation Interest: Matrix" (see **Appendix 4**):

- 1. <u>Perpetuity</u>: Public or private land that by law cannot be sold or converted to uses inconsistent with keeping the land in a natural state.
- 2. <u>Limited</u>: Public or private land zoned "natural resource." This land is *somewhat* protected by zoning law, but, since the Town could change the zoning designation, the legal protection cannot be considered complete. This category also includes lands protected by conservation laws.
- 3. None: Public or private land that has no protection from development.



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The Open Space Committee has recently written a *Management Plan* for Lodge Park (see **Appendix 1**) to ensure a unity of purpose among this Committee, the Board of Selectmen, the Town Administrator, the Department of Public Works, and other official Town bodies concerning the future of Lodge Park. Other open space areas in Nahant, such as Bailey's Hill, would also benefit from similar Management Plans, and this Committee intends to work with these groups to move this project forward.

Handicap Accessibility. In 1986, the Town's Handicapped Access Study Committee completed a survey of handicap accessibility to public buildings, and it was found that the Town's public buildings were in compliance with the Americans with Disabilities Act. A compliance program was instituted for playgrounds and playing fields, and curb cuts were installed as street repairs were made.

The "Inventory" in **Appendix 4** contains the **handicap-accessibility Self-Evaluation** for all Town-owned and Town-managed recreation and conservation land that is open to the public (D. Section 504 Self-Evaluation). This includes a description of handicap access to Nahant's recreation programs and a list of selected recreation and open-space sites, stating the changes planned so that disabled individuals can be better accommodated. Appendix 4 also contains important related documents: an official statement that the Town of Nahant is in **compliance with applicable accessibility laws and regulations** (E. Compliance Statement), an official **grievance procedure** (F. Town of Nahant, For the General Public, Equal Access to Facilities and Activities), and an official statement on **nondiscriminatory employment practices** (G. Town of Nahant, Notice of Non-Discrimination).



Nahant Open Space and Recreation Plan 2000

SECTION 6. COMMUNITY GOALS

A. Description of the Process

In order to articulate open space goals for the Town, the Nahant Open Space Committee started with its goals from the 1989 *Plan* and discussed the current relevance of each one. This was an opportunity to review the Town's accomplishments as well as the areas where more effort is needed. After this review, the Committee established priorities for future goals.

Both the 1989 and 1999 Nahant Open Space Committee Surveys (see **Appendix 2**) were helpful to the Committee in this process. For the current survey, the Committee received 258 completed questionnaires out of the 1,800 forms that were distributed to each household. There were specific questions and an area for comments. Most of the people who responded were homeowners (82 percent), and most had lived in the Town for more than twenty years (60 percent). Particularly useful were the following findings: that most respondents are happy with the open space resources available in the Town; that most would like to see more paths for walking, jogging, and biking; and that most felt that emphasis should be placed on protection, conservation, and management of the Town's open space.

B. Statement of Open Space and Recreation Goals

A statement of what the Nahant community should be, in both ideal and practical terms, can be derived (a) from existing development policies, (b) from the Survey of the Townspeople of Nahant, and (c) from observations by this Committee.

1. Sources for This Statement

(a) Development Policy. In 1986, the Nahant Planning Board identified those parcels of land owned by the Town of Nahant, the Metropolitan District Commission (MDC), Northeastern University, the U.S. Government, the Massachusetts Audubon Society, and other private institutions that were "committed to open space use" (Nahant Planning Board 1986:13-15). It was noted that any new residential or commercial development that might take place "should preserve or enhance those things which form the unique character of the Town," since "Little land is left in the Town to support new development" (p. 24). In its guidelines for any new development, the Board stated:

The local "quality of life" appears to be rated quite highly by Nahant residents. New development should preserve and strengthen those qualities that make Nahant an attractive place to live. New development should maintain traditional public access to or along the shoreline. Development which increases and encourages coastal access will best serve local objectives. Scenic views from public ways and existing developments should be treated considerately in the location and design of new development. The environmental impacts of new development should be positive, not negative. Wetlands, open areas important for wildlife habitat, valuable trees, unusual geologic features, and other natural assets should be preserved. (p. 25; emphasis added)



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The most recent *Zoning Bylaws* of the Town of Nahant, specifically Section 4.10, "Uses Permitted in a Natural Resource District," specifies the purposes, uses, and prohibited uses of a Natural Resource District. In the explicit enumeration of the "uses" of such a district, the recognition of the fundamental value of open space is implicit:

- 1. The preservation and maintenance of protected wildlife and wetlands resource areas and habitats.
- 2. The protection of the Town against the costs which may be incurred when unsuitable development occurs in swamps, marshes, along water courses, in areas of high impact due to overcrowding of land and undue concentration of population, or on slopes subject to erosion.
- 3. To preserve and increase the amenities of the Town and foster enjoyment of its remaining natural resources as recreational values.
- 4. To conserve natural conditions, wildlife and open space for the education, passive and active recreation and general welfare of the public.
- **(b)** *Community Survey*. The enumeration of the results of the Survey conducted by the Nahant Open Space Committee initiated in January 1999 are presented elsewhere in this report (see Section 6A above and **Appendix 2**). Out of the 1,800 Survey forms distributed, 258 were returned. In the section where people were asked to "circle the appropriate response," an overwhelming appreciation of the value of open space was apparent:
- Ninety-two percent recognized the importance of open space for the protection of flood plains and wetlands and the enhancement of environmental quality through the conservation of plants and wildlife.
- Five areas are the most frequently visited: Short Beach; Henry Cabot Lodge, Jr., Memorial Park / East Point; Forty Steps Beach; Bailey's Hill; and Marjoram Park. (The reasons are not specified, but these areas can all be characterized as spacious, accessible to the public, and offering spectacular scenery.)
- The activities most often engaged in included walking, ocean watching, swimming, bicycling, using playgrounds, and picnicking. Items given high or medium priority for improvement included walking paths in natural areas; conservation areas; playgrounds; places for swimming, birdwatching, and nature study; jogging and bike paths; ball fields; and picnic areas.
- Ninety-five percent or more wanted to see at least some emphasis on the protection of open space and general aesthetic quality; on environmental conservation (e.g., of wetlands, wildlife, and natural areas); on the management of existing open space and recreational areas; and on public access to the shoreline or to natural areas. Eighty-five percent wanted to see more emphasis on public rights of way.
- (c) Observations by This Committee. Throughout the year, the beaches, streets, and byways of Nahant are frequented by people of all ages and both sexes walking, jogging, bicycling, or skateboarding. In the summer there is much organized activity by youth and young adults on the ballfields (especially in the evening), while the beaches are crowded with bathers, and recreational boats ply the offshore waters. SCUBA divers use Canoe Beach on the northern side



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of Nahant, while seniors and children socialize at Marjoram Park opposite the Town Wharf. Lobster buoys ring the rocky portions of the shoreline during the trapping season.

To the careful observer, there is a surprising variety of interesting plant life throughout the Town, and birders know that Nahant is a prime location for observing migrating birds, especially songbirds in the spring and fall and seagoing waterfowl in the winter.

2. Statement of Open Space and Recreation Goals

Nahant is a very small and very beautiful place that serves primarily as a residential area for a fairly dense population that is in many ways diverse (e.g., in terms of age distribution, ethnic or national background, livelihood, income, and religious and political affiliation). One characteristic that unites the residents of this Town is that so many people here cherish and make substantial use of the recreational opportunities that are available in the Town's open spaces, including the sandy beaches, the rocky coastline, the fields and parks maintained for organized athletic and social activity, and passive recreational areas such as East Point and Bailey's Hill.

There are no forests or significant woodlands here, and there is no "agricultural land" per se—but there is a significant lobstering industry based in Nahant, and the quality and health of our offshore waters is of great importance to this industry.

There are wetlands here, primarily the various parcels collectively known today as the Lowlands. These wetlands have been subject to much alteration, especially in the past 150 years, due to a variety of human activities, but significant portions of these wetlands still offer the possibility of restoration as a network of natural areas, where appropriate improvements may be suggested for the purposes of passive recreation and the enjoyment of the natural attributes present.

Nahant's prime assets are its physical situation and the quality of life that derives partly from it: it is a rugged, hilly peninsula jutting out into the Atlantic Ocean; its winding coastline is a varied assemblage of sandy and cobblestone beaches, rocky ledges, and windswept headlands, all offering picturesque and sometimes spectacular views. If the current density is not exceeded and its open spaces left open and "natural," then Nahant can retain its special quality as a community with a generally peaceful, relaxed, "small town" atmosphere.

The goal of this *Open Space and Recreation Plan* and the efforts that may stem from it is to offer (1) a vision of what this community is and can be, (2) practical suggestions for maintaining, preserving, and enhancing our open space and the quality of life that it fosters, and (3) a document that can serve in the future as a basic reference for Townspeople who will need to define who they are as a community in order to maintain control over their own destiny and preserve what they value most.

Nahant is a very small community in the midst of a dynamic region where the political, economic, social, and demographic forces are strong and where sweeping and irrevocable changes are always possible. Knowing who we are, what we value, and what we want to be may



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help us to deal more wisely and effectively with the outside pressures that we encounter in the future.



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SECTION 7. ANALYSIS OF NEEDS

A. Summary of Resource Protection Needs

An alarming trend documented in this report is that the number of dwelling units is increasing even though the population of Nahant is declining. As the smallest town in the Commonwealth, with an area of little more than one square mile, Nahant can ill afford to miss any further opportunities to protect open space. This is why the protection of existing resources is the single most compelling issue facing planning for open space.

Although about one third of the Town is in public or institutional ownership, it is unknown how much of this area can legally be developed. This report documents the fact that encroachment on "unbuildable" land in Nahant has taken place continuously in recent decades. Specifically, deeds to a number of public or institutional properties need to be examined to see if these parcels have any protection as open space. The Metropolitan Area Planning Council's "MetroPlan 2000: The Regional Development Plan for Metropolitan Boston" includes a "Land Resources Matrix," which provides an exhaustive listing of specific programs, funding sources, and regulatory/legislative mechanisms that can be utilized for the protection of several designated kinds of conservation areas relevant to Nahant, including the following: flood plains, shellfish beds, dunes, historic resources, archaeological resources, coastal areas, scenic landscapes, wet lands, barrier beaches, wetland habitats, rights of way, and lands of conservation and recreational interest (Metropolitan Area Planning Council 1994:65-66). Using this matrix as a guide, appropriate strategies for the protection of these resources need to be explored.

Privately held land should also figure into the planning process. A moratorium on subdivisions could be considered by the Town as there are many large lots that can be subdivided under the current Zoning Bylaws. Private owners could be approached to explore the possibility of agreeing to conservation restrictions and to discuss other methods to protect their land from future development. Identifying appropriate private parcels of open space that might be available for acquisition and finding potential sources of funds for purchasing private land could also be examined.

B. Summary of the Community's Needs

Although Nahant Beach, Short Beach, Bailey's Hill, Forty Steps Beach, and Lodge Park are all heavily used for recreation, there are some areas of Nahant with rich potential that are currently underused.

One of these is the area originally known as The Meadows (now, more commonly, the Lowlands), an area that is presently used for a ballfield, lobster-trap storage, and Town composting. Originally a wetland habitat, The Meadows has been drained and filled over the years to accommodate a variety of uses. Historically, trolley tracks ran through the area, and later it was used as a dump. It is still an important habitat for birds since it has wet ditches, thick cover, and food sources. The 1989 *Nahant Open Space Plan* specified as a goal the creation of a path through The Meadows, linking it with other recreational areas. The 1999 Nahant Open



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Space Committee Survey indicates that new recreational paths are still an important goal for the Town. Considerable work has been done on a plan for a walking and biking trail system linking The Meadows with Little Nahant, Short Beach, the golf course, and Bailey's Hill. It is hoped that the needs of the Town for a composting area and of the lobster industry for storage can be balanced with the need for recreation and that The Meadows can be reclaimed for its value as a beautiful natural area.

Another underused and very valuable recreational resource in Nahant is the Massachusetts Audubon Society Sanctuary, popularly known today as "The Thicket." The Thicket provides an important habitat for birds (as well as a glimpse, possibly, of an original native-plant wetland habitat), but, as revealed by the 1999 Open Space Survey, recreational opportunities are limited by the wet, muddy trails and a large ditch, impassable by most users, that bisects the area. Several bridges have been built over the ditch only to be destroyed by vandals. However, there has been no attempt to construct a bridge in the past ten years, and it is hoped that a new effort might be more successful. The planning for trails in Nahant could include this need as well.

C. Management Needs and Potential Change of Use

One goal of the *Nahant Open Space Plan* of 1989 was the development of a passive recreational area at East Point. This goal has been achieved with the rehabilitation of the open meadow now dedicated as Henry Cabot Lodge, Jr., Memorial Park. The Open Space Committee, together with Town officials and private citizens, saw the realization by 1998 of their goal to fill the dangerous missile silos at East Point with glacial till from the Boston Harbor Sewage Outfall Tunnel project, cover the area with loam, and plant compatible natural grasses and other plants in the park. There is an area for handicapped parking, signs concerning safety hazards, and walking paths as well. A *Management Plan* for Lodge Park has been created that is currently being implemented by the Town (see **Appendix 1**). Plans for park benches, the rebuilding of the low fence around the park, and further plantings are being considered. Continued reevaluation and implementation of this *Management Plan* will be a concern in future Open Space planning.

Management plans could also be developed for other areas. Bailey's Hill at this writing is in need of such a plan. Recently, the U.S. Government built fences along two potentially hazardous ridges above former gun emplacements. Similar safety issues could be evaluated. In the past, compost and other rubbish has been stored here by the Town, a use incompatible with recreation. Also, there is a need to address vandalism and erosion problems, both of which are important issues for this area. A management plan considering all of these sometimes conflicting needs could be developed.

D. Communication Needs

It is believed that when residents see nature trails being built and recreational areas being improved, they become more invested in preserving Nahant's Open Space. Creating and maintaining these areas thus provides the additional benefit of increased awareness and appreciation for open space issues. As in the past, beach clean-ups, nature walks, and fundraising



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efforts will also provide ways to raise awareness of Nahant's beautiful open spaces. Another need identified in the Open Space Survey is for maps of Nahant's recreational areas. An Open Space brochure containing maps of recreational areas could be designed and made available to the public.



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SECTION 8. GOALS AND OBJECTIVES

GOAL 1. Protect existing open space and special plant and animal habitats.

Objectives:

- A. Identify parcels of land that may qualify as open space, either as recreational areas or habitats for plant and animal conservation.
- B. Inform landowners of the advantages of a conservation restriction, and explore ways of achieving this objective for the landowners and the Town.
- C. Review with the Board of Selectmen the inventory of Town-owned land that may be appropriate for conservation restrictions
- D. Investigate special zoning measures to protects open space.
- E. Recommend sites for acquisition and apply for funding.

GOAL 2. Integrate recreational and conservation activities.

Objectives:

- A. Work with Town departments, boards, committees, and other concerned groups to create a path through The Meadows (i.e., the Lowlands) conservation area.
- B. Similarly work to create a network of paths extending from Little Nahant through Short Beach, The Meadows, and the golf course to Bailey's Hill.
- C. Work with Massachusetts Audubon and other concerned groups in Nahant to improve access to the "Thicket" (the Massachusetts Audubon Society Sanctuary) and to restore and maintain its integrity and quality as an important wildlife habitat.

GOAL 3. *Improve opportunities for open space recreation.*

Objectives:

- A. Assess the needs of physically challenged persons and senior citizens and the potential for improving access to open space areas for them.
- B. Assess the potential for improving and maintaining the Peripheral Path making it generally accessible to the Townspeople while addressing the legitimate concerns of abutting property owners.
- C. Similarly, assess, as an "open space" issue, the legal access to, and the improvement and management of, traditional rights of way to the ocean.

GOAL 4. Develop procedures for further evaluation of open space issues.

Objectives:

A. Develop open space management plans for specific areas (e.g., Bailey's Hill),



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- on the model of the 1999 Open Space Management Plan for Lodge Park.
- B. Communicate and coordinate activities with other Town departments, boards, committees, and other groups concerned with open space / recreation issues.
- C. Create a forum for the people of Nahant to voice their concerns on open space issues.
- D. Encourage the people of Nahant to become involved in open space issues.

GOAL 5. Protect the quality of our beaches, surrounding waters, and skies.

Objectives:

- A. Work with Town departments, boards, committees, and other groups concerned to encourage the vigorous enforcement of the Wetlands Protection Act.
- B. Work with the Department of Public Works to protect the quality of our surrounding waters and the safety of our beaches.
- C. Support SWIM (Safer Waters in Massachusetts) and other organizations in their efforts to protect the quality of both our surrounding waters and our beaches.
- D. Support those organizations and individuals who are working to resolve the problem of serious daily noise pollution caused by the unauthorized flight patterns over Nahant of air traffic out of Logan Airport in Boston.

GOAL 6. Increase the appreciation of Nahant's open space.

Objectives:

- A. Develop an open space / recreation brochure and/or guidebook.
- B. Plan guided nature walks and discussions.
- C. Develop a self-guiding natural-history trail.
- D. Through formal and informal communication, encourage the Townspeople to look at local open space issues as part of a larger regional context:
 - (1) Open space is vital to human physical, emotional, and spiritual well-being.
 - (2) Open space is vital to the preservation and continuation of the complex and fragile natural world to which we belong.
 - (3) The continued health and existence of open space is always contingent upon the larger economic, political, and social forces of the region in which we live—and we must constantly be aware of how these forces may be working to shape our lives and our future.



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SECTION 9. FIVE-YEAR ACTION PLAN

(Refer to **Appendix 3**, **Map 10**: "Action Plan Map")

- I. Year One: 2001-2002
 - A. Inform landowners of methods and advantages of preserving the natural character of their property—such as conservation restriction.
 - B. Establish a trails subcommittee to conduct research and apply for grants for walking paths.
 - C. Develop a brochure on open space / recreation opportunities.
 - D. Continue liaison with the Public Recreation Commission to expand recreational opportunities in the Town.
 - E. In cooperation with Public Recreation Commission and other town bodies, develop a Management Plan for Bailey's Hill.
 - F. Re-establish liaison with Golf Course Management Committee to achieve multiple use of Golf Course.

II. Year Two: 2002-2003

- A. Identify and research sites for acquisition and apply for funding.
- B. Review what protection exists for Town-owned land.
- C. Trails subcommittee to continue researching and taking action on walking paths.
- D. Review rights of way and open them up as necessary and appropriate. Study feasibility of identifying Rights of Way with on-site markers.

III. Year Three: 2003-2004

- A. Research and apply for Federal and State funding for Open Space Acquisition and Management.
- B. Study refurbishment of coastal areas with dune grass.
- C. Establish a self-guided trail network.

IV. Year Four: 2004-2005

- A. Review *Open Space and Recreation Plan* and revise goals and objectives.
- B. Trail subcommittee to firm up maintenance plans including funding and volunteer efforts.

V. Year Five: 2005-2006

A. Update Open Space and Recreation Plan.



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SECTION 10. PUBLIC COMMENTS

As mentioned in Section 2 (see page 3), a Draft Version of this *Open Space and Recreation Plan 2000* was submitted to nine local and regional organizations in the fall of 1999 for formal review and comment. By the time that the first official version of this *Plan* was printed and distributed, four of these organizations (along with one other organization not formally required to review it) had responded to this Committee, and their letters were included in this section.

The present, final version of the *Plan* contains seven letters, including a final letter of approval from the Executive Office of Environmental Affairs and a statement from the Town Coordinator for the Americans with Disabilities Act that the Town's hiring and grievance policy is "in compliance with applicable laws and regulations." Six of these letters are found below, and the Compliance Statement is found in **Appendix 4**, subsection **E**.

The title of the Draft Version of the *Plan* was "Open Space and Recreation Plan 1999"—and that title is mentioned in some of the letters that follow. However, since the editing and additions to the Final Version were not substantially completed until the end of 2000, it was decided by the Committee to update the title to reflect the year in which it was officially made public.



The Commonwealth of Massachusetts

Executive Office of Environmental Affairs 251 Causeway Street, Suite 900

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ARGEO PAUL CELLUCCI GOVERNOR

> JANE SWIFT LIEUTENANT GOVERNOR

BOB DURAND SECRETARY

Tel. (617) 626-1000 Fax (617) 626-1181 http://www.magnet.state.ma.us/envir

January 29, 2001

Sherry Smith Nahant Open Space Committee Town Hall Nahant, MA 01908

Re: Open Space and Recreation Plan

Dear Ms. Smith:

Thank you for submitting the last remaining documents to complete Nahant's Open Space and Recreation Plan. I am pleased to write that the plan is approved. This final approval will allow Nahant to participate in DCS grant rounds through April 2005.

Congratulations on a job well done. Please call me at (617) 626-1015 if you have any questions or concerns about the plan.

Regional Planner

cc:

Board of Selectmen Recreation Department

Town of Nahant 334 Nahant Road, Nahant, MA 01908

Telephone: 781-581-0088 FAX 781-593-0340

January 6, 2000

Ms. Linda Pivacek, Chair Nahant Open Space Committee 41 Little Nahant Road Nahant, MA. 01908

Dear Ms. Pivacek,

1999 NAHANT OPEN SPACE PLAN

Please be advised the Board of Selectmen has received and reviewed the proposed 1999 Open Space Plan prepared by your Committee.

We are grateful for the work your committee has performed preparing this document. We look forward to reviewing comments from the Planning Board and the Conservation Commission regarding this document. Once we receive all comments, we will sponsor a warrant article to be presented at this year's Annual Town Meeting. The goals and objectives outlined in the Open Space plan seem well conceived, and would go a long way in improving and guiding the Town's management of open space.

Thanks again for your efforts. The Board of Selectmen looks forward to working with both your committee and the other boards in town to accomplish the many actions of the plan.

Sincerely,

Board of Selectmen

cc: Town Administrator



Town of Nahant 334 Nahant Road, Nahant, MA 01908

Telephone: 781-581-0088 FAX 781-593-0340

November 22, 1999

Ms. Linda Pivacek, Chair Open Space Committee 41 Little Nahant Rd. Nahant, MA 01908

Dear Linda:

RE: 1999 Nahant Open Space Plan

As Chairman of the Board of Appeals, I wish to thank you and your committee for all of your effort in creating the Town's new Open Space Plan. I understand that the Commonwealth's requirements for these plans have become more complex, and that this project required a significant amount of work on the part of the Open Space Committee.

In order to draft this plan, it was necessary to take a complete inventory of the town's current open space and to re-examine the Town's resources, goals and prior actions. Your committee's recently issued document is concise and extremely well written. It is clear that the production of this document was a difficult and complicated task and that is required a great amount of volunteer effort.

The Board of Appeals is pleased to endorse this plan since we recognize the significance of preservation of open space, particularly ocean vistas and wetlands. These features are critically important to the character of Nahant and to its residents.

Once again, thank you for your committee's tireless efforts on behalf of the Town. Your work will be appreciated for many years to come.

Very truly yours,

William Crawford, Chairman

Board of Appeals

Cc: Board of Selectmen

Conservation Commission

Planning Board



OFFICE OF THE

NAHANT PLANNING BOARD

November 22, 1999

Ms. Linda Pivacek, Chair Open Space Committee 41 Little Nahant Road Nahant, MA 01908

Dear Ms. Pivacek:

The Planning Board would like to thank you and your committee for its significant effort in writing a new Open Space Plan for the Town. It is evident by the depth of research and thoughtful analysis that your committee has taken its role very seriously. The Town is fortunate to have such volunteers looking out for its future.

The Planning Board would like to express its strong support for the report's stated objectives and overall conclusions. In a relatively densely populated town like Nahant, where the existing build out on average exceeds current zoning, open space represents an extremely critical feature contributing to the Town's character and quality of life. The importance of protecting and appropriately utilizing the Town's remaining open spaces should not be underestimated.

The report has very competently provided the information base and tactical blueprint for open space preservation. The Planning Board would like to offer its support and assistance as your committee pursues funding and takes steps to implement the Plan.

Thanks again to you and your committee. We look forward to working with you on this most worthy effort.

Sincerely,

Robert Baldwin

Member

Cc: Board of Selectmen

Conservation Commission

Board of Appeals



Nahant SWIM, Inc. Safer Waters in Massachusetts

November 24, 1999

Ms. Linda Pivacek, Chair Open Space Committee Town of Nahant Town Hall Nahant, MA 01908

Subject: 1999 Nahant Open Space Plan

Dear Ms. Pivacek:

I am writing to endorse wholeheartedly the Town of Nahant's new Open Space Plan. Safer Waters in Massachusetts (SWIM) voted at its meeting of October 29, 1999 to give its support to the Nahant Open Space Plan. SWIM, a citizens' environmental group devoted to protecting the waters and shores of the Town of Nahant and the North Shore, stands ready to assist in implementation of the Nahant Open Space Plan in whatever way we can.

Since Nahant is almost completely surrounded by water, our coastline particularly needs this plan and its inventory of the Town's current open space. Both our shores and our marshlands are vulnerable to coastal storm damage, and they need the safeguards that the Open Space Plan can help to provide.

Our wildlife resources and ecology will benefit if their habitat in low-lying areas can be protected. Our human population will also benefit if the temptation to build on marginal areas subject to occasional flooding is decreased. Moreover, our inland areas need more protection, since they are subject to intense development pressure because of our own beautiful oceanside habitat.

SWIM appreciates the hard work and devotion that went into creating the new Nahant Open Space Plan. The result is excellent, speaking directly, intelligently and in detail to Nahant's unique needs.

Thank you for this work. SWIM appreciates your effort and expertise, and so will future generations of Nahant citizens.

Sincerely yours,

Polly Bradley, President

Poely Bradley

Safer Waters in Massachusetts (SWIM)

cc: E

Board of Selectmen Conservation Commission Planning Board

Town Administrator

Board of Appeals



Metropolitan Area Planning Council

60 Temple Place, Boston, Massachusetts 02111 617/451-2770 Fax 617/482-7185

Serving 101 cities and towns in metropolitan Boston

October 22, 1999

Linda Pivacek, Chairman Nahant Open Space Committee Nahant Town Hall 334 Nahant Road Nahant, MA 01908

Dear Ms. Pivacek:

The Metropolitan Area Planning Council has reviewed the Nahant Open Space and Recreation Plan 1999. The plan is well-written and appears to cover most of the Division of Conservation Services guidelines. I would like to offer the following comment.

1) Subregion - Within the discussion of the regional context, there should be mention made of the open space planning activities of surrounding communities. In addition, it should be noted that Nahant is a member of the Inner Core Committee, one of eight MAPC subregions. The Inner Core Committee is a group of twenty-three communities that meet regularly to discuss issues of common interest and is an excellent forum for discussing regional open space issues and opportunities.

Thank you for the opportunity to review this plan. If we can be of further assistance, please don't hesitate to call.

Sincerely,

David C. Soule Executive Director

cc: Joel Lerner, Division of Conservation Services

(Sail

Mark Cullinan, MAPC Representative, Town of Nahant



Nahant Open Space and Recreation Plan 2000

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Nahant Open Space and Recreation Plan 2000

Appendices



Nahant Open Space and Recreation Plan 2000

Appendix 1

Management Plan for Henry Cabot Lodge, Jr., Memorial Park, East Point, Nahant, Massachusetts



MANAGEMENT PLAN

FOR

HENRY CABOT LODGE, JR., MEMORIAL PARK,
EAST POINT, NAHANT, MASSACHUSETTS

Prepared by the

Nahant Open Space Management and Land Acquisition Committee

Linda Pivacek, Chair

Deborah Aliff

John I. Benson, Secretary

Sherry V. Smith

Stephanie Tuttle

STATEMENT OF PURPOSE

The natural beauty of East Point, with its commanding ocean view, enhances the quality of life for the residents of the Town of Nahant while providing a habitat for wildlife. In writing this Management Plan for Henry Cabot Lodge, Jr., Memorial Park, the goal of the Nahant Open Space Management and Land Acquisition Committee (the "Open Space Committee") is to create a working document to ensure a unity of purpose among the members of the Open Space Committee, the Board of Selectmen, the Town Administrator, the Department of Public Works, and other official Town bodies for the future of this park. The rehabilitation of this area was the result of the efforts of many contributors, including volunteers and Town bodies and officials. The Open Space Committee spearheaded many of these efforts and continues its stewardship of the park today. The committee anticipates that it will continue to play a key role in the management of Lodge Park.

HISTORY

In 1986 an article was passed at the annual Town Meeting to create Henry Cabot Lodge, Jr., Memorial Park.

The Open Space Committee and the Conservation Commission of the Town of Nahant worked with Moriece and Gary Landscape Architects to design a landscaping plan for Lodge Park. This plan was accepted at Town Meeting in 1990, establishing Lodge Park as a passive recreation area. The goal of the plan was to restore East Point to a place of natural beauty and at the same time to preserve it as a historical landmark. The unsightly and hazardous silos of the former U.S. Army missile base were filled, and the hilltop where the silos had been located was contoured and planted to blend with the natural topography.

The initial major phase of reclamation was completed, and a rededication of the Lodge Memorial took place in July 1994.

Afterwards, a landscaping plan for the more formal area around the Memorial stone was implemented, and in the summer of 1997 the Open Space Committee held a ceremony to dedicate a granite compass rose Memorial to the late Governor of Massachusetts and Ambassador to Italy John A. Volpe, a close friend of Ambassador Lodge. The compass rose is seated atop the grassy knoll behind the Lodge Memorial stone and orients visitors as they enjoy the magnificent views from this vantage point.

OVERVIEW

This <u>Management Plan</u> outlines a calendar for the maintenance of both the natural and the more formal areas of the park as well as ways to address safety and accessibility concerns.

A natural grassland setting with paths will be maintained in keeping with the goal of creating a passive recreation area. To ascertain the management criteria for the park, the Open Space Committee has consulted with the Soil Management Division of the U.S. Department of Agriculture and the Ecological Management Division of the Massachusetts Audubon Society.

LEVELS OF USE

Lodge Park is composed of two grassy knolls, which include the formal Lodge and Volpe Memorials and a natural meadow, and the stone-dust paths that surround and traverse this area.

The natural grassy area is intended for passive recreation such as walking, painting, photography, birdwatching, and simply enjoying the view. The area will be maintained as a natural open meadow. This Plan includes the provision for occasional small,

low-growing "islands" of natural vegetation such as bayberry or wild rose that will enhance the site and provide cover and forage for birds.

A more formal setting surrounds the Lodge and Volpe Memorial area located on the western end of the park. A higher level of maintenance will be required to keep this area mowed and weeded around the plantings.

The stone-dust paths are intended for low-level recreational activity such as walking, jogging, and (non-motorized) bicycling.

PARK MAINTENANCE

The following regime is subject to change after inspection annually in early spring. However, the basic approach will remain the same.

1. Site of the Lodge Memorial and the Volpe Memorial

The Memorials constitute a more formal area of the park. The area of grass adjacent to the Lodge Memorial and connecting to the Volpe Memorial will be kept relatively short and will require mowing at least twice during the annual growing season. The Open Space Committee may enlist the assistance of volunteers to help with the weeding of planting beds and with the planting of bulbs and annuals in keeping with the aims of the committee and this Management Plan.

2. Natural Grassy Meadow

The approach to the mowing regime will be to maintain the park as an open natural grassland. This may require the cutting of woody plants before their stems become over one inch in diameter. The use of a brush cutter or similar machine produces the optimal grass height. It is anticipated that mowing will take place in the fall,

once every two or three years. In any event, any work should begin after mid-September and be completed before mid-April to prevent the disturbing of nesting birds and to allow wildflowers to bloom and set seed. The maintenance area can be split into two smaller sections, with each section mowed in alternate years to ensure that some cover and forage is always present. This regime will provide diversity of habitat for birds and for invertebrates such as butterflies and other pollinating insects. For example, Nahant's dwindling pheasant population is still present at East Point.

SITE INSPECTION

Routine inspection of the site will be required to determine the yearly mowing requirements, to allow monitoring of invasive plant species, and to determine the functionality of the drainage ditches. It is suggested that a representative of the Open Space Committee, the Superintendent of the Department of Public Works, and/or the Town Administrator inspect the site in early spring. Ideally, any changes to the park should be communicated among the said representatives at this time. Alternatively, a meeting can be organized at any time to review the need for unforeseen work at the park. The Open Space Committee has been consulting with the Department of Ecological Management of the Massachusetts Audubon Society on the restoration of Lodge Park and will be available to help with any questions raised.

PUBLIC SAFETY

There has always been a concern for public safety at East Point.

Occasionally visitors will venture too close to the edge of the rocky headland. The dilemma for Town officials is balancing the desire of visitors for the freedom to enjoy the park fully and the need to keep them safe.

There is a guardrail that partially encloses the park, and although for most visitors it does act as a barrier or as the delimiter of a safety zone, it is in some need of repair.

While there can be no plan that guarantees complete safety, there are steps that can be implemented to reduce the risk of accident or injury: (1) Additional signs have already been posted warning of hazards. (2) The guardrail can be repaired. A higher fence is not recommended because it may simply invite children to climb over it and may thus increase the danger of falling. (3) An effective measure highly recommended by this committee to prevent people from venturing into dangerous areas is to use natural barriers such as plantings of thick, thorny shrubs. The cost and the amount of labor involved in this option will have to be investigated and reviewed with Town officials, however.

There are four or five "sinkholes" that appeared two years after the final contouring of the park. These are the result of the slow silting of the glacial-till filler into the old silos, creating air pockets well below ground level. Over time the soil has gradually sunk into the pockets. The sinkholes have been periodically compressed with water and filled, with a gradual reduction in the rate of sink. However, continued monitoring is required.

ACCESS BY THE ELDERLY AND HANDICAPPED

Currently there is a restriction on what vehicles may be allowed into the park. Motor-vehicle access by the elderly and handicapped requires a permit from Public Safety which allows driving to and parking near the Lodge Memorial.

MEMORIAL BENCHES

The Open Space Committee has received requests to place memorial benches and trees at Lodge Park. There is clearly a limit to the number of requests of this kind that can be accommodated. Therefore, any requests will have to be handled on an individual basis.

Benches should conform to the style selected for Greenlawn

Cemetery. Due to the open exposure and the shallow depth of the soil at Lodge Park, the committee does not recommend the planting of trees at the site.

*

[Note: A Draft of this <u>Management Plan</u> was presented to the Board of Selectmen, the Town Administrator, and the Superintendent of the Department of Public Works of the Town of Nahant on January 8, 1999. The present document is essentially the same as that document, with stylistic revisions.]



Nahant Open Space and Recreation Plan 2000

Appendix 2

Nahant Open Space Committee Survey and Results

NAHANT OPEN SPACE COMMITTEE SURVEY

The Nahant Open Space Committee is currently revising the Open Space Plan. We are once again studying the needs and concerns of the citizens of Nahant. This survey is an integral part of the plan and will give the committee direction in providing recommendations for open space and recreation opportunities. Furthermore, this type of input is necessary to qualify for state reimbursement programs for acquisition and protection of important town resources. With your help, the Open Space Committee will determine priorities in developing future open space planning and at the same time maintain the character of the town.

Please answer all of the applicable questions. If you wish to comment on any questions or qualify your answers please feel free to use the space on the back of this survey. Thank you for your help.

PLEASE CIRCLE THE APPROPRIATE RESPONSE

PLEASE CIRC	CLE THE API	RUPRIA LE RE	SPONSE	
1. How often do you or any member				
	NEVER	RARELY	SOMETIMES	OFTEN
Audubon Thicket	X	X	X	X
Bailey's Hill	X	X .	X	X
Blackrock Beach (across from Coastguard)		X	X	X
Canoe Beach	X	X	X	X
Forty Steps Beach	X	X	X	X
Henry Cabot Lodge Park/East Point	X	X	X	X
Marjoram Park	X	X	X	X
Short Beach	X	X	X	X
Swallow's Cave	X	X	X	X
Tudor Beach	X	X	X	X
Other				
2. Which of the following are importance Protect flood plains and wetlands Maintain scenic areas Provide areas for recreation Conserve trees, plants and wildlife to enhance quality of environmen Other 3. How well are your needs for open in the construction of the	t	YES X X X X		ON'T KNOW X X X X X
EX	CELLENT	GOOD	FAIR	POOR
Please comment on any unique pro Nahant	blems that hi	nder your oppo	ortunities to enjoy o	open space in
		· · · · · · · · · · · · · · · · · · ·		

5. How often do you or any members	NÉVER	RARELY	SOMETIMES	OFTEN
Jogging	X	X	X	X
Walking	X	X	X	X
	X	X	X	X
Playgrounds	X	X	X	X
Cross Country Skiing				X
Picnicking	X	X	X	
Birdwatching/Nature Study	X	X	X	X
Oceanwatching	X	X	X	X
Swimming	X	X	X	X
Windsurfing	X	X	X	X
Bicycling	X	X	\mathbf{X} .	\mathbf{X}
Golfing	X	$\overline{\mathbf{X}}$	X	X
	X	X	X	$\ddot{\mathbf{x}}$
Tennis	X	X	X	X
Fishing		X	X	X
Softball	X			X
Rollerblading	X	X	X	
Soccer	X	X	X	X
Basketball	X	X	X	X
Other:	X	X	X	X
Playgrounds	HIGH	MEDIUM		
1 14 1 51 0 0 11 0 0	X	X	LOW X	NONE X
	X	X X	X X	X X
Ball Fields	X	X	X	X X X
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7. How much emphasis should be pla	iced on ea	ich of the following	in future plans	for Nahant?
	MORE	SOME	LESS	NONE
Protection of open space	X	X	X	X
Protection of aesthetic quality	X	X	X	X
Environmental conservation-				
(wetlands, wildlife, natural areas, etc.)	X	X	X	X
Management of existing open space				
and recreation areas	X	X	X	X
Access to water/shoreline/natural areas	X	X	X	X
Rights of way/Public ways	X	X	X	X
Other:	X	X	X	X

8. How satisfied are places for children aplay and recreate in	and youth to			5 - very satisfied 4 - satisfied 3 - neutral 2 - dissatisfied 1 - very dissatisfied		
	5	4	3	2	1	
9. How satisfied are places available in t use by adults?	you with the	e eational				
	5	4	3	2	1	
10. What do you like	e best about	living in Nahan	nt?			
					-	
11. What do you like	e least abou	t living in Nahar	nt?			
12. How long have y been a resident of Nahant? less than 5 ye5 to 10 years10 to 20 yearsmore than 20	f h i ars _ s	Oo you or anyon tousehold own posterior town?YesNo	property		3	
14. Where in Nahant (circle numbered ar			4 5	$ \begin{pmatrix} 2 & 4 \\ 2 & 4 \end{pmatrix}$		<u>~</u>
Diagra ratum complet	ad current he	fore Cohmismi 1	5 1000 It con	he drapped off or mail	ad to:	

Please return completed survey before February 15, 1999. It can be dropped off or mailed to: Nahant Open Space Committee, Nahant Town Hall, 334 Nahant Rd., Nahant, MA 01908

It can also be dropped off at the following locations:

Nahant Liquors & Variety Store 2-A Wilson Rd., Nahant Variety (Logue's) 271-A Castle Rd. Seaside Pizza 149 Nahant Rd., Richland 332 Nahant Rd., Nahant Library 340 Nahant Rd.

Thank you for participating with our survey. With your help we can identify the town's open space concerns and priorities so that we can develop an action plan.

Nahant Open Space Committee Survey Results

The Nahant Open Space Committee sent out a survey to the households in town to ask the residents of their concerns of open space and recreational needs. The town printed 2200 surveys. The majority of them (1800) were enclosed in the January issue of the Harbor Review. Others were available at the drop off locations. We received back 258 completed surveys.

The findings showed that 82% of respondents owned property in town and 60% had resided here for more than twenty years. (15% had lived here for less than five years, 11% from five to ten years and 14% from ten to twenty years.) Areas of residence from the respondents included 13% for Little Nahant, 34% for the Bass Point area, 16% south of Nahant Road, 16% north of Nahant Road and 21% for the East Point area.

Children and youth recreation and play areas were very satisfactory or satisfactory for 58% of the respondents, while 12% were dissatisfied, 30% were neutral. In regard to adult recreational areas - 59% were satisfied or very satisfied while 13% were dissatisfied or very dissatisfied and 28% were neutral - essentially the same findings for children, adults and youths.

In regard to open space - 80% of respondents felt that their needs were met "excellent" and "good", while 20% indicated "fair" and "poor".

The importance of open space for protection of flood plains and wetlands; the maintenance of scenic areas; recreation areas; and conservation of trees, plants and wildlife for the enhancement of environmental quality was noted by 92% or more of respondents in each of the above categories.

The five areas most visited "sometimes" or "often" were Short Beach, Henry Cabot Lodge Park / East Point, Forty Steps Beach, Bailey's Hill and Marjoram Park. Those visited "never" or "rarely" were the Audubon Thicket, Swallows Cave, Blackrock Beach, Canoe Beach and Tudor Beach.

Activities most often engaged in included walking, ocean watching, swimming, bicycling, using playgrounds and picnicking. Those never or rarely engaged in by respondents included windsurfing, softball, soccer, basketball, cross-country skiing, golfing and tennis. In keeping with the above, priorities which were seen as high or medium for improvement included walking paths in natural areas, conservation areas, playgrounds, swimming, birdwatching / nature study, jogging / bike paths, ballfields and picnic areas. Priorities seen as low or none were assigned to cross-country skiing, windsufing and basketball courts.

In regard to future plans for Nahant - 95% or more of all respondents felt that more or some emphasis should be placed on protection of open space; protection of aesthetic quality; environmental conservation (wetlands, wildlife, natural areas, etc.); management of existing open space and recreational areas; and access to water / shore line / natural areas. In regard to rights of way / public ways, 85% wanted more or some emphasis placed, while 15% wanted less or none.

When asking people to comment on any unique problems that hinder their opportunities to enjoy the open spaces in Nahant the answers came back varied and interesting.

The most consistent and by far the most strongly stated problem is dog feces that is not picked up around town (22 mentions). Dogs, in general, were mentioned often. Dogs unleashed (8) hindered people's enjoyment. The dog officer (4) was mentioned as a hindrance. The lose of Black Rock Beach to the dogs (4) was lamented and the need to have more areas for unleased dogs (4) was considered a problem.

The litter and garbage (19), the lack of parking (12), the blocked rights of way (14) and the restricted access to the towns perimeter (11) also received more comments that any other problems. Over-levelopment of Nahant (9) and not upholding the zoning by-laws (2). "The threat of over expansion and development within town which will hinder opportunities to enjoy open spaces in the future" were mentioned as unique problems.

The non-maintenance of the town (8), the need to upgrade the "downtown", the playgrounds, the tennis courts, the soccer fields / ballfields are considered in "deplorable condition" as well as the abandoned Coast Guard Station was mentioned with two people commenting that the Coast Guard Station looked "impoverished" and we should consider making it taxable.

Handicap limitations (4) as well as their age factor (4) hindered people. Some people are hindered by not having a map (4) or knowing where the open spaces are (2) to explore here in Nahant. The lack of toilets (3), garbage cans (3) and benches (4) all seem to hinder enjoyment. Traffic (3) and illegal parking (2) as well as cars speeding was singularly mentioned.

The odor from the ocean (2) and jet skis (2) are mentioned as affecting the enjoyment of open space. The theft of lobsters or the taking of short fish, duck hunting, drinking in public, cars driving in the parks, stray cats or the inability of launching boats at low tide from the pier all were singular comments..

The golf course should be made into passive open space (3) and the Audubon Sanctuary is too wet, has poor paths and is dangerous (3) were comments on the unique problems. Other comments were to flood the lowlands in the winter for skating (2) and to do more plantings up at Lodge Park. As well as an organized van tour of Nahant for the seniors on a regular basis.

The mention of lack of time (2) as a hindrance to enjoy the open space is most likely a thought that would receive the most votes if we all had more time to have thought of that!

When asked "What do you like best about living in Nahant?" the not surprising reply was the ocean, the sea (112 mentions). Sea breezes, cool temperature (2) and the air (12) were noted. The beauty, scenic / natural beauty (70) of Nahant and the feeling of being safe (66) received by far the most mentions. Sunsets, sunrises (4), full moons (2), the birds (3), the light / reflection off the water and rocks were also mentioned.

The police / fire departments (5), police (3) and Chief Manley all were commended. The quiet (48) small town atmosphere (37) and the people (34) were all considered the best things about Nahant. Close community (3), community atmosphere (5), the community spirit (2) and involvement were thought of as the best. Neighborliness (3), friendliness (10) and considerate neighbors (2) all were mentioned as well as "the people who are dedicated to preserving open space and recreational areas". The beaches (31), the open space to play (23) and open space in general (16) were on some peoples best list. Along with the environment (2), the isolation (9) and our location (5).

The proximity to Boston (23) (and airport) and the location to other points of interests were some of the best points of Nahant. The peacefulness (20), the privacy (6) "knowing my rights will not be infringed on".

Some people think that the best of Nahant is that its clean (6). There's no traffic (7), no traffic lights (2), lack of commercial businesses (6) with no industry and the "available stores to meet many needs".

As far as places - the library (5), the golf course (4), the school (2) were the best to some. The post office, Lodge Park, Seaside Pizza, Charlie at Seaside, breakfast at Seaside and Marilyn's Fish Store were all singularly mentioned. The Swallow Cave Singers, the Village Church and historical reasons (2) were the best response from some.

Coastal living (5) and living in a small seaside town (2) with good sailing (2), access to boats with swimming / boating in a low key living sheltered, stable community are considered the best. People stay for life (3) in a not densely populated, slow paced (3) affordable community. Friendly town officials, sensible government and open town meeting were considered the best.

The leash law, resident only parking, the kids recreational programs and the diversity of the people were mentioned as the best. The pride people take in their property (2), no room for development and no church or political problems were also considered the best. Some think the best thing about Nahant is summer (2). Everything, almost everything and love it! (3) were the final comments of some.

When asked "What do you like least about living in Nahant?" the responses were extremely diversified but with the overwhelming percentage expressing the need for more commercial establishments.

Lack of a drug store, gas station (6), downtown (2), fresh food (4), pharmacy (4), shops (2), bakery, downtown space, stores (4), parking, grocery (3), gym / health club, decent breakfast place, coffee shop, homey restaurant, commercial establishments (2), hotels, bed and breakfast (2), hardware, butcher, cafe, business (2), inn, activity center or quaint stores all totaled (46 mentions) more responses that any other mention.

The disrepair (15) of the town was the second largest comment of what people like least about Nahant. The mention of benches, cracked sidewalks, roads (2), ballfields, playgrounds, crumbling sidewalks and curbs, parks (2), public facilities and the general over all look of the town.

The town politics (14), "small town" politics (3) and corrupt town officials were some of the least likable things about Nahant for some people. The "lack of individual pride in community: i.e. vandalism" was mentioned. The town's zoning by-laws not being enforced (12), the blocked rights of way (2), persistent development (3), over crowding (2) and the limited access to all beaches in town were written about. The "lack of concern and planning for environmental issues" and "uncontrolled development on vacant land in town" show the concern of some.

The litter (11) around town and the inadequate trash can pick ups (4) are some of the least like things. Lack of ticketing (3) "in parks and on sidewalks" and at Tudor Beach and Forty Steps, illegal parked cars (4) and the parking in general are mentioned as things least liked. The ugliness of the causeway (3), neglected Short Beach, the lack of open space (2), not enough trees and "the need for effective conservation" as well as "too many chain saw massacres" all were mentioned.

The respondents were very adamant about speeding cars (9) especially down Castle Road, "mothers from hell going to pick up their children from school". As much as some people think the best thing about Nahant is the remoteness, being isolated (9) is the least liked by some. The lack of racial diversity (6) and the small mindedness (6) were mentioned. Along with the "lack of funds to make the town more recreational friendly". No older children non-sport activities (7) were mentioned by some people.

The noise from the airplanes (6) are the least liked thing about Nahant for some. The dog feces (5) that is not picked up, loose dogs (2), dogs (4), crows (2) and pigeons are also least liked. The current leash law (4) was mentioned as least liked while one person wrote "wish they would enforce the leash law" and one person wrote the "overzealous dog law enforcement actions" are their least likable things.

The smell at the entrance to town (5), being too close to Lynn (5), the high taxes (4), the wasted tax dollars, the water and sewer costs (2) and lack of dependable transportation (4) were also mentioned. Some people dislike the lack of fire protection (3), no good access to medical facilities (2) and the slow ambulance.

Leaving Nahant to go to work (3) is considered the least likable thing. The unneighborliness (2) especially to non-residents (2) along with the sightseeing traffic and tourists are unliked along with the small mindedness (2), the cliqueness (2) and agendas of special interest groups (2). Some people cite the school committee (2) and the lack of progress on education.

The least liked is the golf course (2), the general lack of amenities (2) i.e. public toilets, "no public facilities at the ballfields that's maintained", lack of signage at the parks and open space areas (2). Some dislike ocean storms and the cold wind and the new residents trying to do away with old traditions (2). Sport fanatics, yuppies, interfering people, other people, busy bodies, people who criticize were singularly mentioned as what some people like least about Nahant.

Other least liked things are too many cars at the 4th of July, too many police, petty and rude police officers, too noisy, too dark and too many negative signs when entering town.

Lack of interaction with other residents, social life, lack of turnover of affordable real estate and lack of access to Boston "the Blue Line should be extended" are expressed. Least liked is the sewer outfall, overhead wires, trash service, illegal apartments, expensive stores and the Lynn Item. Others mentioned very restricted, hostility, town gossip and fighting among interest groups and holding grudges. The running buses on Relay Road, the audio on cable are the least liked things to some people here in Nahant. Nothing (18) was the response from a good percentage of residents. And one person's response as the least liked thing about Nahant is surveys!

Town of Nahant

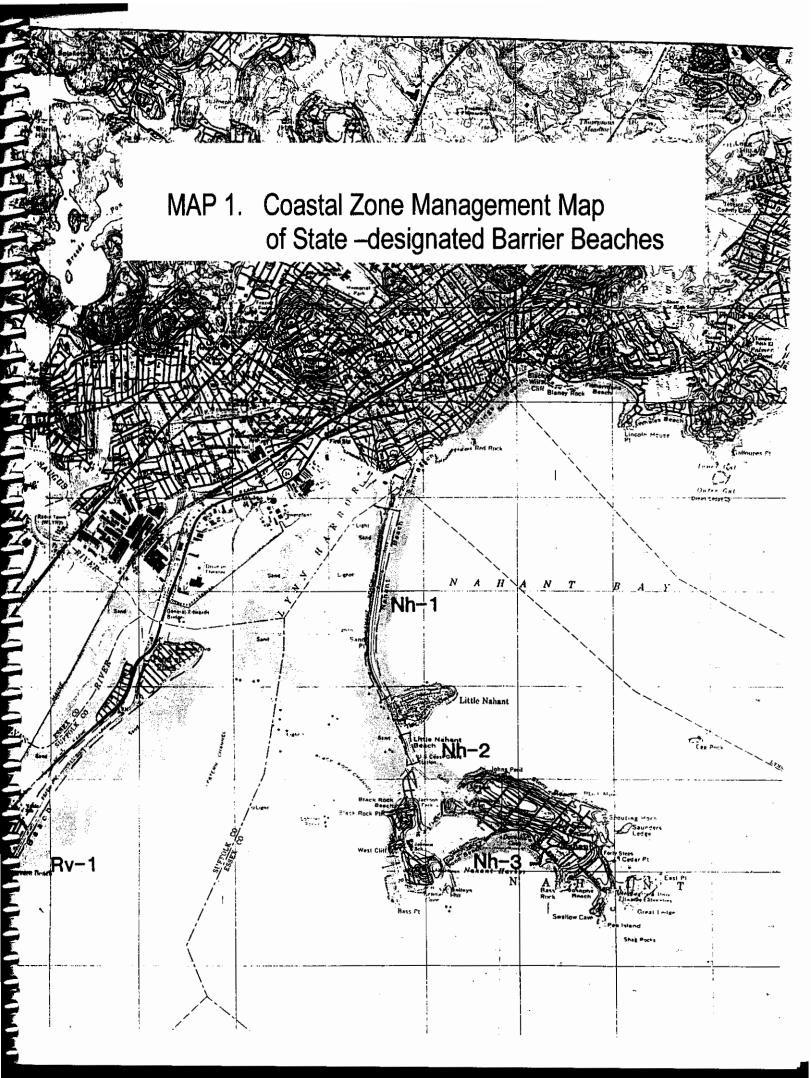


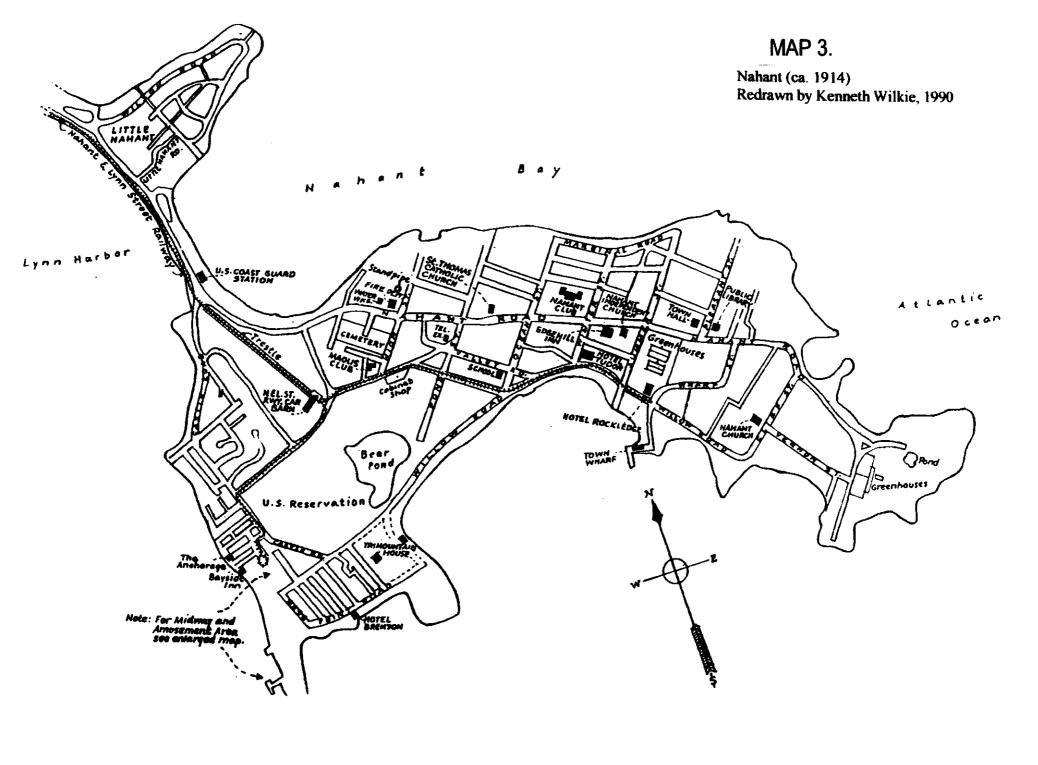
Nahant Open Space and Recreation Plan 2000

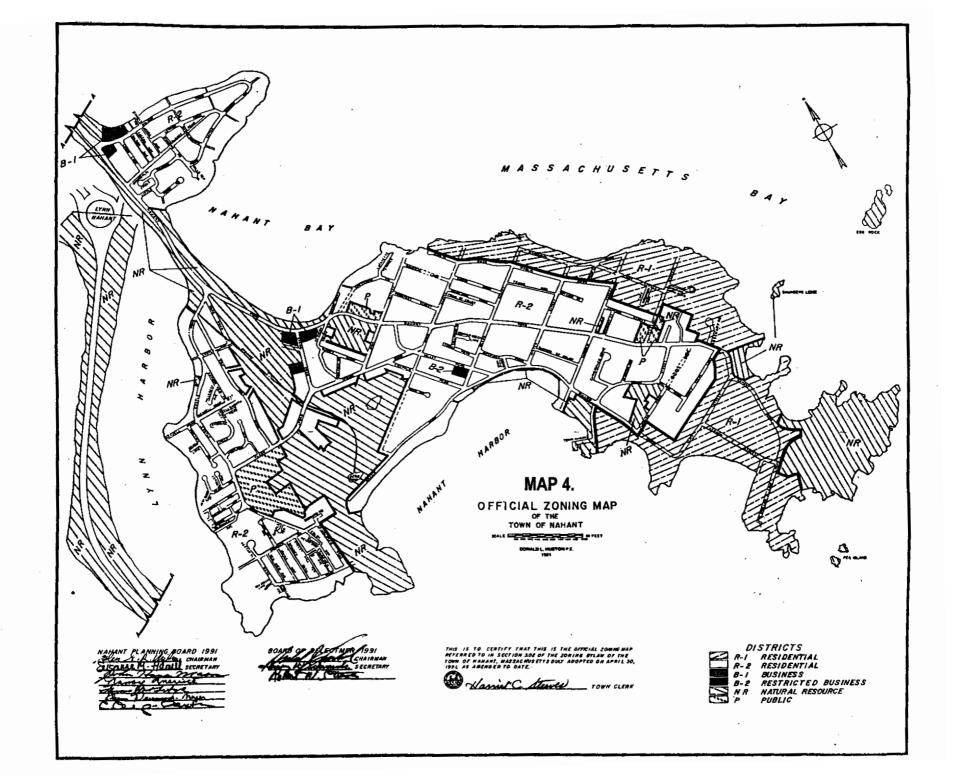
Appendix 3

Maps:

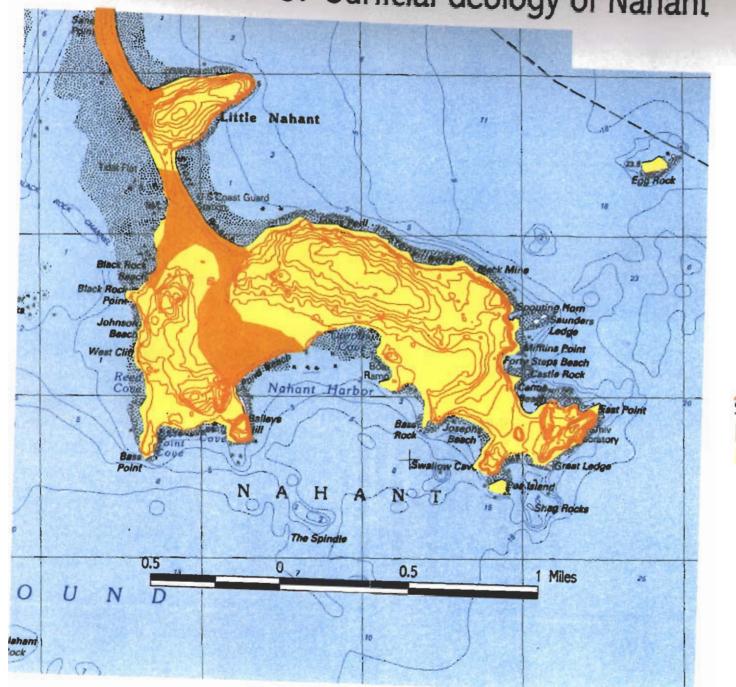
- 1. Coastal Zone Management Map of State-designated Barrier Beaches
- 2. Nahant as It May Have Been in the Seventeenth Century
- 3. Nahant (ca. 1914)
- 4. Official Zoning Map of the Town of Nahant
- 5. Surficial Geology of Nahant
- 6. Nahant Wetlands
- 7. Map of Nahant Past and Present
- 8. Open Space by Ownership
- 9. Open Space by Level of Protection
- 10. Action Plan Map





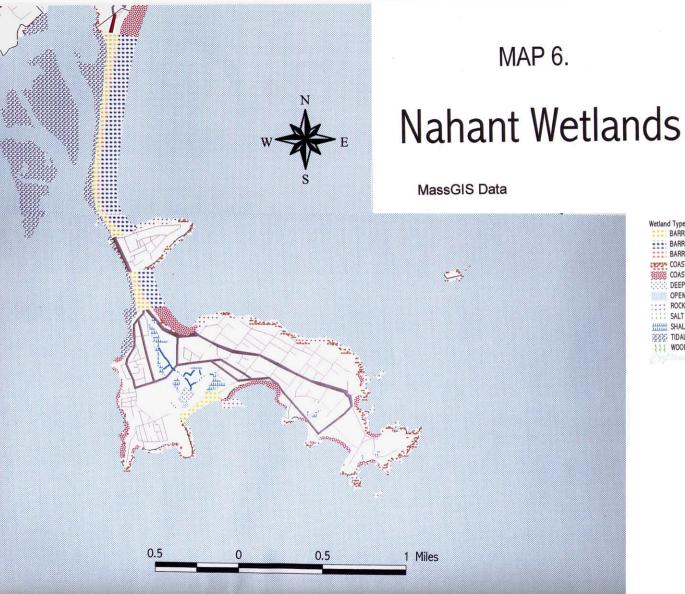


MAP 5. Surficial Geology of Nahant

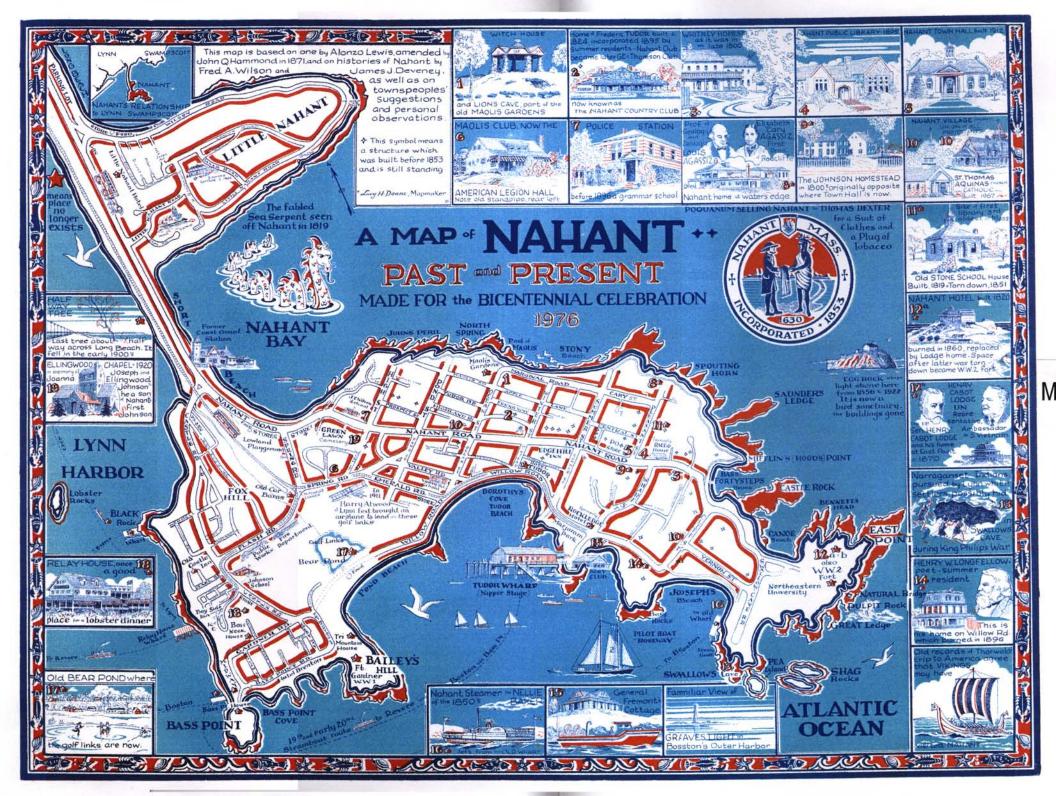


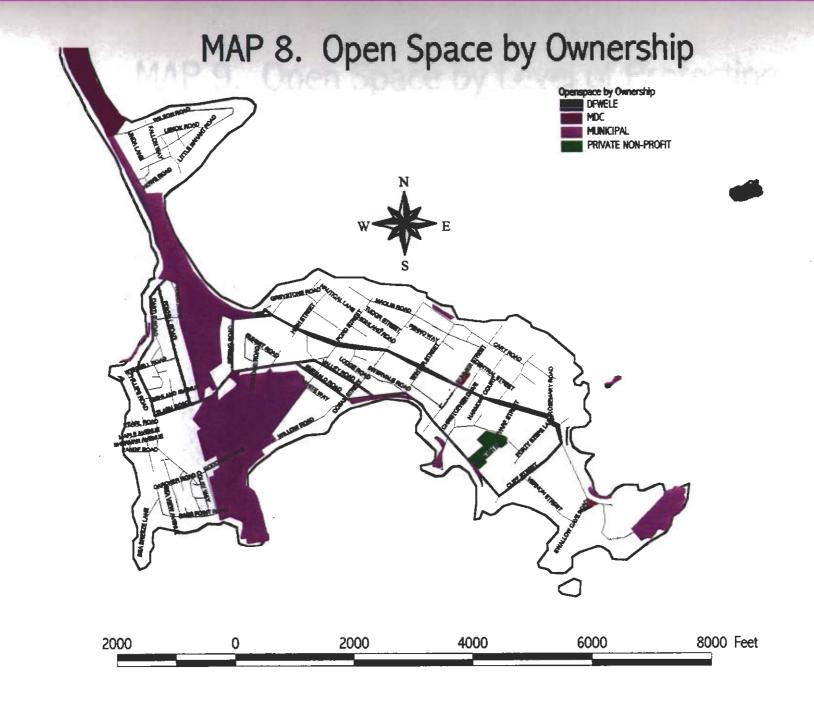






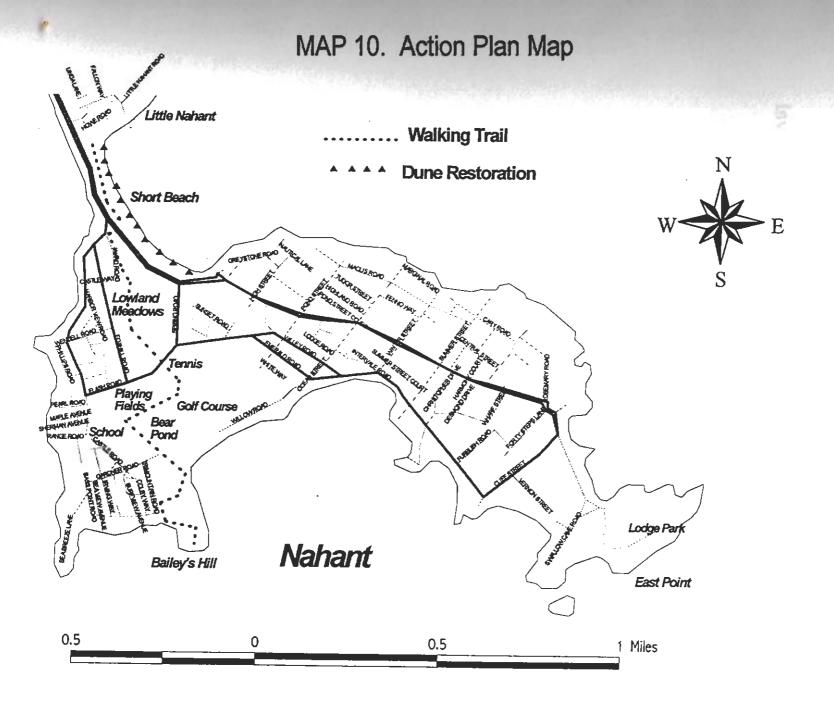






MAP 9. Open Space by Level of Protection





Town of Nahant



Nahant Open Space and Recreation Plan 2000

Appendix 4

Inventory of Lands of Conservation and Recreation Interest:

- A. Matrix
- B. Description of Sites
- C. Map of Sites
- D. Section 504 Self-Evaluation
 A Report of Access to Open Space and to
 Recreation Programs for People with Disabilities,
 Program Accessibility / Amelioration and Employment
- E. Compliance Statement
- F. Town of Nahant, For the General Public, Equal Access to Facilities and Activities
- G. Town of Nahant Notice of Non-Discrimination

Public and Nonprofit Lands

Site					Funds		Recreational	Public		Degree of
No.	Site	Owner	Manager	Use	Used	Condition	Potential	Access	Zoning	Protection
			Board of							
1	Bailey's Hill	Town	Selectmen	Recreation	None	Good	High	Free	Natural Resource	Limited
			Board of							
2	Greenlawn Cemetery	Town	Selectmen	Cemetery	None	Excellent	Low	Free	Natural Resource	Limited
	East Point /		Board of							
3	Lodge Park	Town	Selectmen	Recreation	Town	Excellent	High	Free	Natural Resource	Limited
			Birdie Golf							
4	Golf Course	Town	Management	Recreation	Town	Good	High	Paid/Free	Natural Resource	Limited
	Flash Road		Board of							
5	Playground	Town	Selectmen	Recreation	None	Good	High	Free	Natural Resource	Limited
	Little Nahant		Board of							
6	Playground	Town	Selectmen	Recreation	None	Good	High	Free	Natural Resource	None
			Board of							
7	Lowlands Playground	Town	Selectmen	Recreation	None	Good	High	Free	Natural Resource	Limited
	Pleasant Street		Board of							
8	Playground	Town	Selectmen	Recreation	None	Good	High	Free	Natural Resource	Limited
			Board of							
9	Lowlands Ballfields	Town	Selectmen	Recreation	None	Good	High	Free	Natural Resource	Limited
	Lowlands / Meadows		Board of	Conservation,						
10	Open Space	Town	Selectmen	Trails	None	Poor	Medium	Free	Natural Resource	Limited
			Board of							
11	Marjoram Park	Town	Selectmen	Recreation	None	Excellent	Medium	Free	Natural Resource	Limited
	Spring Road		Board of							
13	Basketball Court	Town	Selectmen	Recreation	None	Good	High	Free	Natural Resource	Limited
			Board of							
14	Swallow Cave	Town	Selectmen	Recreation	None	Good	Low	Free	Residential	None
			Board of	Recreation,						
15	Tudor Wharf	Town	Selectmen	Business	None	Good	High	Free	Natural Resource	Limited
		Metropolitan	Metropolitan							
16	Nahant/Long Beach	District	District	Recreation	None	Good	High	Paid/Free	Natural Resource	Perpetuity
		Commission	Commission							

Inventory of Lands of Conservation and Recreation Interest A. Matrix

Private Lands

Site					Funds		Recreational	Public		Degree of
No.	Site	Owner	Manager	Use	Used	Condition	Potential	Access	Zoning	Protection*
				Education,						
	Northeastern	Northeastern	Northeastern	Research,						
12	University	University	University	Recreation	Private	NA	Medium	Free	Natural Resource	Limited
		Cary Street	Cary Street							
18	Cary Street Club	Club	Club	Recreation	Private	NA	Medium	Paid	Residential	None
19	Nahant Country Club	NN Land Co.	NN Land Co.	Recreation	Private	NA	Medium	Paid	Residential	None
	Canoe Beach	Northeastern	Northeastern							
21	(south end)	University	University	Recreation	Private	NA	High	Unofficial	Natural Resource	Limited
22	Curlew Beach	Private	Private	Recreation	Private	NA	Low	None	Residential	None
									Residential,	None,
28	Peripheral Path No. 1	Multiple	Multiple	Recreation, Trails	Private	NA	Low	Unofficial	Natural Resource	Limited
									Residential,	None,
29	Peripheral Path No. 2	Multiple	Multiple	Recreation, Trails	Private	NA	Low	Unofficial	Natural Resource	Limited
	Boardwalk:									
30	No longer exists	NA	NA	NA	NA	NA	NA	NA	NA	NA

^{*}Degree of Protection = category of protection from development (for a full discussion of the categories given here, see Section 5, page 32):

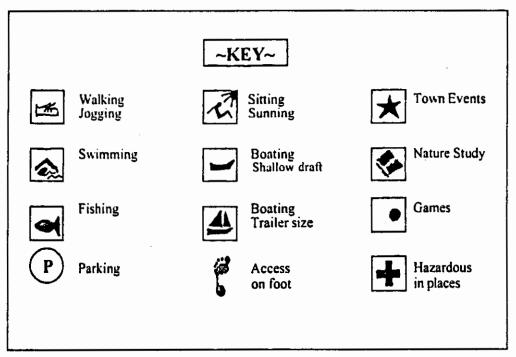
- 1. <u>Perpetuity</u>: Permanent protection.
- 2. <u>Limited</u>: Somewhat protected, e.g., by zoning or conservation laws.
- 3. None: No protection.

Public and Nonprofit Lands (continued)

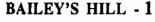
Site					Funds		Recreational	Public		Degree of
No.	Site	Owner	Manager	Use	Used	Condition	Potential	Access	Zoning	Protection
	Former		Board of							
17	Coast Guard Station	Town	Selectmen	To be determined	None	Good	Low	Free	Residential	None
			Board of							
20	Black Rock Beach	Town	Selectmen	Recreation	None	Good	Low	Free	Natural Resource	Limited
			Board of							
23	Forty Steps Beach	Town	Selectmen	Recreation	None	Excellent	Medium	Free	Natural Resource	Limited
		Metropolitan	Metropolitan							
		District	District							
24	Lynn Harborside	Commission	Commission	Recreation	None	Good	Low	Free	Natural Resource	Limited
			Board of							
25	Short Beach	Town	Selectmen	Recreation	None	Good	High	Free	Natural Resource	Limited
			Board of							
26	Stony Beach	Town	Selectmen	Scenic	None	Good	Low	Free	Residential	None
			Board of							
27	Tudor Beach	Town	Selectmen	Recreation	None	Good	High	Free	Natural Resource	Limited
	16 James Avenue		Board of							
31	Steps	Town	Selectmen	Recreation	None	Good	Low	Free	Residential	None
	Audubon Sanctuary	Massachusetts	Massachusett							
32	(The Thicket)	Audubon	s	Recreation	Private	Good	Medium	Free	Natural Resource	Perpetuity
			Audubon							
			Conservation							
33	Bangs Trust	Town	Commission	Buffer Zone	Gift	Good	None	Free	Residential	Perpetuity
			Dept. of Fish	Not suitable for						
34	Egg Rock	Town	and Wildlife	public use	State	Good	None	NA	Natural Resource	Perpetuity
	Canoe Beach (north		Board of							Perpetuity
35	end) / Lodge Grant	Town	Selectmen	Recreation	Gift	Good	Medium	Free	Residential	Possible
			Board of							
			Selectmen,							
			Nahant School							
36	Johnson School	Town	Committee	Public School	None	Good	Medium	Free	Public	None
	Park at Nahant and		Board of							
37	Castle Roads	Town	Selectmen	Recreation	None	Excellent	Low	Free	Natural Resource	Limited

Inventory of Lands of Conservation and Recreation Interest B. Description of Sites

Per Assessor's Land Book or Coastal Property Inventory



The following is an alphabetical listing; the number after the name of each site corresponds to the number on the "Inventory of Lands of Conservation and Recreation Interest: Map of Sites".





Location-

Along Trimountain Road in Bass Point (Fort Ruckman) area

Access -

Park entrance at Trimountain and Bass Point Roads

Condition -

Trimountain and Goddard Roads; Willow Road and Ocean View parking lot Low, flat area between two hills including end of Pond Beach; blacktop and

natural paths; grassy green; bench and gazebo; hills built over bunkers

BANG'S TRUST - 33

Location-

Narrow strip along Town Hall side of Summer Street at Nahant Road

Access-

From Summer Street

Condition-

"Natural" area serving as a buffer zone

BLACKROCK BEACH - 20





Location-

On Castle Road

Access -

Right of way on north end (at intersection with Nahant Road)

Condition -

Stony with sand; street level; shallow water

CANOE BEACH - 21



Location-

Along entrance to East Point, Nahant Road

Access -

At intersection of Nahant Road and Swallow Cave Road

Condition -

Stony with some sand in a cove

COAST GUARD STATION -17



Location-

Nahant Road at Castle Road, abutting Short Beach

Access -

From Nahant Road or Short Beach

Condition -

Historical Life Saving Station with accompanying facilities

(use to be determined); expanse of sandy Town beach

CURLEW BEACH - 22



Location-

Willow Road at intersection with Furbush Road

Access -

No public access (chain link fence)

Condition -Stony

EGG ROCK - 34

Location-

One mile northeast Nahant, in Nahant Bay

Access -

No docking facilities

Condition -

Bare rock; bird nesting area, not suitable for public use

EAST POINT / HENRY CABOT LODGE, JR., MEMORIAL PARK -

Location-

Nahant Road at its easterly terminus

Access -

Through gate in fence beyond public parking area

Condition -

Blacktop road (for official vehicles only) passes through Northeastern

University's Marine Center property to Lodge Park at top; hills built

over bunkers with meadow, paths, benches







FORTY STEPS BEACH - 23



Location-

Nahant Road

Access -

Long flight of stairs descending from road level

Condition -

Rocky beach in a protected cove

GOLF COURSE - 4





Location-

South western section of Big Nahant, bordered by Willow and Flash Roads

Access -

West end of Willow Road

Condition -

Nine hole public course with many ponds in fairways; often swampy turf

GREENLAWN CEMETERY - 2

Location-

Nahant Road

Access -

Enter from Nahant Road or end of High Street

Condition -

Gravel roads; benches

LODGE GRANT - 35



Location-

End of Nahant Road, start of Swallow Cave Road

Access -

Triangular park on road side abutting parking area to Northeastern and East Point

Condition -

Grassy; benches

LOWLANDS - 7 & 10





Location-

Between Ward, Spring, Nahant Roads and a "paper" road paralleling Fox Hill Road

Access -

Nahant Road (Town parking lot); Spring Road; Ward Road

Condition -

Partially developed for recreation; mostly wetlands with one major drainage ditch; former site of Town dump, now composting area for yard waste; southerly portion undeveloped and over grown except for portion leased for lobster trap storage

LYNN HARBORSIDE - 24



Location-

Nahant Road between Wilson and Castle Roads

Access -

Opposite Wilson Road and also at Castle Road

Condition -

Sandy beach blending to dunes with some rock riprap; narrow turf strip below road

between Wilson and Little Nahant Roads; shallow water; dogs allowed on beach year round

MARJORAM PARK - 11





P

P

Location-

Willow Road and Wharf Street

Access -

From either Willow Road or Wharf Street

Condition -

Mostly gentle hill with trees and ledge; flat grassy areas; benches

MDC RESERVATION / LONG BEACH - 16



Location-

Entrance to Nahant and Lynn end of rotary

Access -

Nahant end of causeway and Lynn side before causeway

Condition -

Sandy beach; playground at Lynn end; ball courts; boat ramp on western side, Lynn end

(Note: Nahant does not lease this land, it was taken by eminent domain in 1967 with easements granted for underground pipes and a calgon station on rotary island)

NORTHEASTERN UNIVERSITY MARINE SCIENCE CENTER - 12

Location-

Nahant Road at its eastern terminus, at intersection with Swallow Cave Road

Access -

Through gate

Condition -

Blacktop road

SHORT BEACH - 25



Location-

Along Nahant Road between Little Nahant Road and Antigo Way

Access -

At any point along beach; Town parking lot across Nahant Road

Condition - Sandy beach; gradual drop to deep water

16 JAMES AVENUE STEPS - 31

Location-

Little Nahant; staircase connecting Lennox Road to Wilson Road

Access -

Steps

Condition -

Fair; railing

STONY BEACH - 26



Location-

From intersection of Ocean Street and Marginal Road to Pleasant Street

Access -

Virtually none; rock barrier at roadside

Condition -

All ledge and rocks; strip of salt-marsh-grass meadow between Hood and

Summer Streets; considerable scenic value only

SWALLOW CAVE - 14



Location-

Southern terminus of Swallow Cave Road

Access -

Path from road

Condition -

A natural bridge in the rocky coastal bank, discernible at low tide only

THE THICKET (Audubon Sanctuary) - 32



Location-

Bordered by Wharf Street and Willow, Furbush and Walton Roads

(also added tracts on Furbush Road)

Access -Condition - Paths or natural openings on all sides; main path from Wharf Street

Swampy, overgrown natural area; main path interrupted by ditch

TUDOR BEACH - 27



Location-

Willow Road between Valley Road and Summer Street

Access -

Steps, and concrete ramp at Summer Street end at low tide

Condition -

Sandy beach with some rocky spots; below street level

TUDOR WHARF - 15











Location-

Willow Road at Wharf Street

Access -

From street or water

Condition -

Launching ramp; pram racks; floats; loading piers; moorings or boat storage; benches



PLAYGROUNDS (Under management of Recreation Commission, except for the Johnson School)

FLASH ROAD - 5

Behind Fire Station and DPW building Location-

Contains -Little League field; soccer and Babe Ruth field; playground; tennis and basketball courts P

JOHNSON SCHOOL - 36

Location-Corner of Flash and Castle Roads

Contains -Tot lot; undeveloped portion towards Bass Point

LITTLE NAHANT - 6

Location-Nahant Road at Little Nahant corner of Short Beach

Contains -Swings; basketball court; table shelter

LOWLANDS - 9

Location-Nahant Road opposite Short Beach

Contains -Two softball fields; playground; Town parking lot

PLEASANT STREET - 8

Location-Behind Public Library, at intersection of Pleasant and Central Streets

Contains -Playground

SPRING ROAD - 13

Location-Entrance to Town composting area

Contains -Basketball court

CLUBS (Listed for Open Space aspects only)

CARY STREET (closed membership) - 18

Cary Street at Summer Street Location-

Contains -Outdoor pool; tennis courts

DORY CLUB (open membership) - 15

Location-Town Wharf Contains -Sailboat activities center; (Public use by arrangement)

NAHANT COUNTRY CLUB (open membership) - 19 Nahant Road between Ocean and Winter Streets Location-

Contains -Tennis courts; grassy green; (Some public use by arrangement)

PATHS

SHORT BEACH BLACKTOP PATH - 25

Location-Along Nahant Road running the length of Short Beach Access-Nahant Road; Town parking lot opposite Short Beach

Condition -Three-foot-wide path continuing length of Short Beach



BOARDWALK - 30

Location Little Nahant, between Howe Road and Mills Terrace

Access - Right of way from both streets
Condition - Nonexistent except on paper

UNOFFICIAL OPEN SPACE SITES

PATHS:

PERIPHERAL PATH 1 - 28 Location- From Summer Street at Marginal Road to Forty Steps Beach

Access- Summer Street at Marginal Road; right of way from northern end of Pleasant Street;

Forty Steps Beach

Condition - Traversable in its entirety by walking the remnant of the original path (mainly from

Summer Street to the extension of Pleasant Street), or by descending from eroded ledges or banks to the high-water mark at low to mid-tide; in most areas neither genteel nor safe

PERIPHERAL PATH 2 - 29

Location- Between Swallow Cave and (approximately) Curlew Beach

Access- Swallow Cave and Joseph's Beach

Condition - Sandy beach and rock ledges; difficult because of property-rights issues; not genteel

OTHER SITES:

PARK AT NAHANT AND CASTLE ROADS - 37

Location- Intersection of Nahant and Castle Roads

Access - At any point

Condition - Grassy; blacktop path; benches

The following have historic and scenic value and virtually no public access except by beach or water:

"BLACK MINES"
"POOL OF MAOLIS"
BASS POINT COVE
CASTLE ROCK
JOHN'S PERIL
JOSEPH'S BEACH
MARY'S GROTTO
MIFFLIN'S POINT
NORTH SPRING
SPOUTING HORN

NAHANT

- MASSACHUSETTS &

Base map by Michael O'Shea, AIA Buildings - 1975 Open Space - 1989 scale - 1/8" = 100'

NAHANT BAY

NAHANT HARBOR

25

BROAD SOUND

MASSACHUSETTS BAY

D. Section 504 Self-Evaluation

Town of Nahant, Massachusetts Open Space Plan / Section 504 Self-Evaluation A Report of Access to Open Space and to Recreation Programs for People with Disabilities, Program Accessibility / Amelioration and Employment

1. Administrative Responsibilities:

- A. <u>Designation of ADA Coordinator</u>: On 21 September 2000, Paul English was appointed by Mark Cullinan, Town Manager, as the Americans with Disabilities Act (ADA) Coordinator for the Town of Nahant. As part of his duties, Mr. English also serves as the Town's Section 504 Coordinator [per 43 CFR 17.206(a)].
- B. <u>Grievance Procedure</u>: The Grievance Procedure, a one-page document, was adopted on 17 August 2000 and issued to all Department Heads for the Town. The Grievance Procedure has three steps as follows: **1**. Complaint forwarded to appropriate Town agency. **2**. Town Administrator responds within ten days. **3**. Final appeal is to Board of Selectmen.
- C. <u>Input from a Person with a Disability in the Compliance Process</u>: The Town of Nahant ADA Coordinator, Mr. Paul English, who has Multiple Sclerosis, helped with the site evaluations and has approved the Self-Evaluation.

2. Employment Practices for the Town:

The attached page is a letter by our ADA Coordinator indicating that the Town is in compliance with employment practices that require nondiscrimination to people with disabilities, minorities, and women.

3. Town-Sponsored Recreation Programs and Inventory of Parks and Buildings at Park Sites:

- A. <u>Town-Sponsored Recreation Programs</u>: It is the policy of the Recreation Commission to be inclusive in all its programming.
 - Sailing program: The sailing program will attempt to accommodate persons with disabilities on an individual basis. In the past, several handicapped individuals have been able to participate. These included two adults who were hearing and speech impaired and a child with a developmental disability. In each case the program provided an additional staff person to help.

Town of Nahant, Massachusetts Open Space Plan / Section 504 Self-Evaluation

The following programs also offered by the Recreation Commission can potentially be modified to accommodate persons with special needs:

- Tot-lot: a seven-week program where children are involved in craft projects.
- Flash Road Playground sports program (kickball, hockey, or basketball).
- Flash Road Playground Tennis program.
- Johnson School Adult and Children's basketball.
- Johnson School Children's Gymnastics.
- Hallowe'en haunted house at the Town Hall.
- B. <u>Site Evaluations</u>: Most Town-owned sites that are open to the public were visited in October 2000 and evaluated using a site-evaluation survey sheet, which includes the following information: purpose of the site; the site description; whether or not there are buildings, handicapaccessibility parking, sidewalks, or curb cuts; the condition of paths; steps, slope, picnic tables; and suggested improvements.

Site 1 Bailey's Hill:

Accessibility: Lower area accessible, but upper area is too steep.

Amelioration: Handicap parking, enlarged gate entrance, handicap picnic benches.

Site 2 Greenlawn Cemetery:

Accessibility: Accessible.

Amelioration: None.

Site 3 East Point:

Accessibility: Some paths accessible; access to upper parking lot by prearrangement.

Amelioration: Handicap parking in lower lot, signage below for upper lot.

Site 4 Golf Course:

Accessibility: Accessible.

Amelioration: Handicap bathroom and parking.

Site 5 Flash Playground:

Accessibility: Accessible, including new bathroom. Amelioration: Handicap parking and picnic benches.

Site 6 Little Nahant Playground:

Accessibility: Accessible.

Amelioration: Handicap picnic bench.

Town of Nahant, Massachusetts Open Space Plan / Section 504 Self-Evaluation

Sites 7 and 9

Lowlands Playground and Ballfield:

Accessibility: Accessible.

Amelioration: Handicap parking, play equipment, and picnic bench.

Site 8 Pleasant Street Playground:

Accessibility: Limited access.

Amelioration: Handicap-accessible playground equipment and picnic benches.

Site 10 Lowlands / The Meadows:

Accessibility: Unimproved.

Amelioration: To be determined; site of proposed nature trail.

Site 11 Marjoram Park:

Accessibility: Level area along road accessible; beach and wooded hilltop not accessible.

Amelioration: Ramp to beach, handicap parking and picnic benches.

Site 13 Spring Road Basketball:

Accessibility: Accessible.

Amelioration: None.

Site 14 Swallow Cave:

Accessibility: Unimproved

Amelioration: None

Site 15 Tudor Wharf:

Accessibility: Accessible.

Amelioration: Handicap parking.

Site 17 (Former) Coast Guard Station:

Accessibility: Not presently open to the public.

Amelioration: Under study.

Site 20 Black Rock Beach:

Accessibility: Unimproved.

Amelioration: None.

Site 23 Forty Steps Beach:

Accessibility: Deck at top of steps and sidewalk are accessible; beach is not.

Amelioration: Handicap parking.

Site 25 Short Beach:

Accessibility: Accessible.

Amelioration: Handicap parking.

Site 26 Stony Beach:

Accessibility: Unimproved.

Amelioration: None.

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Site 27 Tudor Beach:

Accessibility: Handicap-accessible ramp at the eastern end of the beach.

Amelioration: Handicap parking.

Site 31 16 James Avenue Steps:

Accessibility: Public right of way.

Amelioration: None.

Site 33 Bangs Trust:

Accessibility: Unimproved conservation land.

Amelioration: None.

Site 35 Canoe Beach / Park:

Accessibility: Park area is accessible; beach is not.

Amelioration: Handicap parking.

Site 37 Park at Nahant and Castle Roads:

Accessibility: Accessible.

Amelioration: Handicap parking.

E. Compliance Statement



Town of Nahant 334 Nahant Road, Nahant, MA 01908

Telephone: 781-581-0088 FAX 781-593-0340

January 23, 2001

To Whom It May Concern

Dear To Whom It May Concern,

COMPLIANCE STAEMENT

I have reviewed the Town of Nahant's hiring and grievance policy and find this document to be in compliance with applicable laws and regulations. If you have any questions I can be reached through the Nahant Town Hall at 781-581-9927.

Sincerely,

Mr. Paul English, ADA Coordinator

ADA Coordinator

Zel English

cc: Open Space Committee

Town Administrator Board of Selectmen

F. Town of Nahant For the General Public Equal Access to Facilities and Activities

Maximum opportunity will be made available to receive citizen comments, complaints, and/or to resolve grievances or inquiries.

STEP 1:

The Town Administrator will be available to meet with citizens and employees during business hours.

When a complaint, grievance, request for program policy interpretation or clarification is received either in writing or through a meeting or telephone call, every effort will be made to create a record regarding the name, address, and telephone number of the person making the complaint, grievance, program policy interpretation or clarification. If the person desires to remain anonymous, he or she may.

A complaint, grievance, request for program policy interpretation or clarification will be responded to within ten working days (if the person making the complaint is identified) in a format that is sensitive to the needs of the recipient (i.e. verbally, enlarged type face, etc.).

Copies of the complaint, grievance, request for program policy interpretation or clarification and response will be forwarded to the appropriate town agency (i.e. park commission, conservation commission). If the grievance is not resolved at this level it will be progressed to the next level.

STEP 2:

A written grievance will be submitted to the Town Administrator. Assistance in writing the grievance will be available to all individuals. All written grievances will be responded to within ten working days by the Town Administrator in a format that is sensitive to the needs of the recipient (i.e. verbally, enlarged type face, etc.). If the grievance is not resolved at this level it will be progressed to the next level.

STEP 3:

If the grievance is not satisfactorily resolved, citizens will be informed of the opportunity to meet and speak with the Board of Selectmen, with whom local authority for final grievance resolution lies.

G. TOWN OF NAHANT

NOTICE OF NON-DISCRIMINATION

IT IS THE POLICY OF THE TOWN OF NAHANT NOT TO DISCRIMINATE ON THE BASIS OF AGE, COLOR, HANDICAP OR DISABILITY, ANCESTRY, NATIONAL ORIGIN, MARITAL STATUS, RACE, RELIGION, SEX, VETERAN STATUS, OR POLITICAL AFFILIATION IN ITS EMPLOYMENT AND MUNICIPAL ACTIVITIES.

THIS IS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL AND STATE LAW, INCLUDING, BUT NOT LIMITED TO, SECTION 504 OF THE REHABILITATION ACT OF 1973, AS AMENDED, THE AMERICANS WITH DISABILITIES ACT, AS AMENDED, THE CIVIL RIGHTS ACT OF 1964 AS AMENDED, ARTICLE 114 OF THE MASSACHUSETTS CONSTITUTION, CHAPTER 151B AND 272, SECTIONS 92, 98 AND 98A, OF THE MASSACHUSETTS GENERAL LAWS AND EXECUTIVE ORDERS 227, 245 AND 253.

TOWN ADMINISTRATOR MARK P. CULLINAN IS DESIGNATED TO ADMINISTER COMPLIANCE WITH THE LAWS AND REGULATIONS.

TOWN OF NAHANT 334 NAHANT ROAD NAHANT, MASSACHUSETTS 781-581-9927

Appendix 5

- A. Birds of Nahant
- B. List of Endangered, Threatened, and Special Concern Bird Species Occurring in Nahant

Town of Nahant



A. Birds of Nahant

(Most Species Listed Below Occur Annually. * = Uncommon ** = Rare)

GREBES

Pied-billed Grebe*

Podilymbus podiceps
Red-necked Grebe

Podiceps grisegena

Horned Grebe

Podiceps auritus

STORM-PETRELS

Wilson's Storm-Petrel *Oceanites oceanicus*

GANNETS AND BOOBIES

Northern Gannet *Morus bassanus*

CORMORANTS

Double-crested Cormorant

Phalacrocorax auritus

Great Cormorant

Phalacrocorax carbo

DUCKS, SWANS, AND GEESE

Ruddy Duck*

Oxyura jamaicensis

Mute Swan

Cygnus olor

Snow Goose*

Chen caerulescens
Canada Goose

Branta canadensis

Brant

Branta bernicla Wood Duck

Aix sponsa

American Wigeon*

Anas americana

Gadwall*

Anas strepera

Green-winged Teal*

Anas crecca Mallard

Anas platyrhynchos

American Black Duck *Anas rubripes*

Northern Pintail*

Anas acuta

Northern Shoveler*

Anas clypeata

Greater Scaup

Aythya marila

Lesser Scaup

Aythya affinis

Common Eider

Somateria mollissima

King Eider*

Somateria spectabilis

Harlequin Duck*

Histrionicus histrionicus

Oldsquaw

Clangula hyemalis

Black Scoter

Melanitta nigra

Surf Scoter

Melanitta perspicillata

White-winged Scoter

Melanitta fusca

Common Goldeneye

Bucephala clangula

Barrow's Goldeneve*

Bucephala islandica

Bufflehead

Bucephala albeola

Red-breasted Merganser

Mergus serrator

HERONS, EGRETS, AND

BITTERNS

Great Blue Heron

Ardea herodias

Cattle Egret**

Bubulcus ibis

Green Heron

Butorides virescens

Black-crowned Night-Heron

Nycticorax nycticorax

American Bittern**

Botaurus lentiginosus

IBIS AND SPOONBILLS

Glossy Ibis*

Plegadis falcinellus

NEW-WORLD VULTURES

Turkey Vulture

Cathartes aura

OSPREY

Osprey

Pandion haliaetus

HAWKS, EAGLES, AND KITES

Northern Harrier

Circus cyaneus

Sharp-shinned Hawk

Accipiter striatus

Cooper's Hawk

Accipiter cooperii

Red-tailed Hawk

Buteo jamaicensis

FALCONS AND CARACARAS

American Kestrel

Falco sparverius

Merlin

Falco columbarius

Peregrine Falcon

Falco peregrinus

PHEASANTS, GROUSE, QUAILS, AND TURKEYS

Ring-necked Pheasant

Phasianus colchicus

masianus concincu.

SANDPIPERS

American Woodcock

Scolopax minor

Greater Yellowlegs

Tringa melanoleuca
Solitary Sandpiper*
Tringa solitaria
Spotted Sandpiper
Actitis macularia
Willet**
Catoptrophorus semipalmatus
Ruddy Turnstone
Arenaria interpres

Short-billed Dowitcher* Limnodromus griseus Long-billed Dowitcher Limnodromus scolopaceus Red Knot Calidris canutus Sanderling Calidris alba Semipalmated Sandpiper Calidris pusilla Western Sandpiper* Calidris mauri Least Sandpiper Calidris minutilla White-rumped Sandpiper Calidris fuscicollis Baird's Sandpiper** Calidris bairdii Purple Sandpiper Calidris maritima Dunlin Calidris alpina Buff-breasted Sandpiper**

PLOVERS AND LAPWINGS

Black-bellied Plover
Pluvialis squatarola
Semipalmated Plover
Charadrius semipalmatus
Killdeer
Charadrius vociferous

Tryngites subruficollis

GULLS AND TERNS
Ring-billed Gull
Larus delawarensis
Great Black-backed Gull
Larus marinus
Iceland Gull
Larus glaucoides
Herring Gull

Larus argentatus
Lesser Black-backed Gull**
Larus fuscus
Black-headed Gull*
Larus ridibundus
Bonaparte's Gull
Larus philadelphia
Laughing Gull
Larus atricilla
Little Gull*
Larus minutus

Caspian Tern*
Sterna caspia
Roseate Tern
Sterna dougallii
Common Tern
Sterna hirundo
Forster's Tern*
Sterna forsteri
Least Tern
Sterna antillarum

AUKS AND ALCIDS Thick-billed Murre* Uria lomvia Razorbill Alca torda Black Guillemot Cepphus grille

LOONS
Red-throated Loon
Gavia stellata
Common Loon

Gavia immer

PIGEONS AND DOVES

Rock Dove *Columba livia* Mourning Dove *Zenaida macroura*

NEW-WORLD CUCKOOS Black-billed Cuckoo Coccyzus erythropthalmus Yellow-billed Cuckoo Coccyzus americanus

OWLS Eastern Screech-Owl Otus asio Great Horned Owl Bubo virginianus
Snowy Owl*
Nyctea scandiaca
Barred Owl
Strix varia
Northern Saw-whet Owl*
Aegolius acadicus
Long-eared Owl*
Asio otus

NIGHTJARS
Common Nighthawk
Chordeiles minor
Whip-poor-will**
Caprimulgus vociferous

SWIFTS Chimney Swift Chaetura pelagica

HUMMINGBIRDS Ruby-throated Hummingbird Archilochus colubris

KINGFISHERS Belted Kingfisher Ceryle alcyon

WOODPECKERS
Yellow-bellied Sapsucker
Sphyrapicus varius
Downy Woodpecker
Picoides pubescens
Hairy Woodpecker*
Picoides villosus
Northern Flicker
Colaptes auratus

TYRANT FLYCATCHERS
Olive-sided Flycatcher*
Contopus cooperi
Eastern Wood-Pewee
Contopus virens
Yellow-bellied Flycatcher*
Empidonax flaviventris
Alder Flycatcher
Empidonax alnorum
Willow Flycatcher
Empidonax traillii
Eastern Phoebe
Sayornis phoebe

Great Crested Flycatcher Myiarchus crinitus Eastern Kingbird Tyrannus tyrannus

CROWS AND JAYS

Blue Jay Cyanocitta cristata American Crow Corvus brachyrhynchos

VIREOS AND ALLIES

White-eyed Vireo Vireo griseus Blue-headed Vireo Vireo solitarius Philadelphia Vireo Vireo philadelphicus Red-eyed Vireo Vireo olivaceus Warbling Vireo Vireo gilvus

SHRIKES

Northern Shrike Lanius excubitor

WAXWINGS AND SILKY-**FLYCATCHERS** Cedar Waxwing

Bombycilla cedrorum

THRUSHES

Veery

Catharus fuscescens Gray-cheeked Thrush* Catharus minimus Swainson's Thrush Catharus ustulatus Hermit Thrush Catharus guttatus Wood Thrush

Catharus mustelinus American Robin

Turdus migratorius

MOCKINGBIRDS AND THRASHERS

Gray Catbird Dumetella carolinensis Northern Mockingbird Mimus polyglottos

Brown Thrasher Toxostoma rufum

STARLINGS

European Starling Sturnus vulgaris

NUTHATCHES

Red-breasted Nuthatch Sitta canadensis White-breasted Nuthatch Sitta carolinensis **CREEPERS** Brown Creeper

Certhia Americana

WRENS

Carolina Wren Thryothorus ludovicianus Winter Wren Troglodytes troglodytes House Wren Troglodytes aedon

GNATCATCHERS

Blue-gray Gnatcatcher Polioptila caerulea

SWALLOWS

Tree Swallow Tachycineta bicolor Purple Martin* Progne subis Northern Rough-winged Swallow Stelgidopteryx serripennis Barn Swallow Hirundo rustica

KINGLETS

Ruby-crowned Kinglet Regulus calendula Golden-crowned Kinglet Regulus satrapa

CHICKADEES AND TITS

Black-capped Chickadee Poecile atricapillus Tufted Titmouse* Baeolophus bicolor

OLD-WORLD SPARROWS

House Sparrow Passer domesticus

SISKINS, CROSSBILLS, AND

ALLIES

American Goldfinch Carduelis tristis Common Redpoll* Carduelis flammea House Finch Carpodacus mexicanus Evening Grosbeak* Coccothraustes vespertinus

NEW-WORLD WARBLERS Blue-winged Warbler Vermivora pinus Tennessee Warbler Vermivora peregrina Orange-crowned Warbler* Vermivora celata Nashville Warbler Vermivora ruficapilla Northern Parula Parula americana Yellow Warbler Dendroica petechia Chestnut-sided Warbler Dendroica pensylvanica Magnolia Warbler Dendroica magnolia Cape May Warbler Dendroica tigrina Black-throated Blue Warbler Dendroica caerulescens Yellow-rumped Warbler Dendroica coronata Black-throated Green Warbler Dendroica virens Blackburnian Warbler Dendroica fusca Prairie Warbler Dendroica discolor

Dendroica palmarum Bay-breasted Warbler Dendroica castanea Blackpoll Warbler Dendroica striata

Palm Warbler

Black-and-white Warbler Mniotilta varia American Redstart Setophaga ruticilla Worm-eating Warbler*

Helmitheros vermivorus

Ovenbird Seiurus aurocapillus Northern Waterthrush Seiurus noveboracensis Louisiana Waterthrush Seiurus motacilla Kentucky Warbler* Oporornis formosus Connecticut Warbler* Oporornis agilis Mourning Warbler* Oporornis philadelphia Common Yellowthroat Geothlypis trichas Hooded Warbler* Wilsonia citrina Wilson's Warbler Wilsonia pusilla Canada Warbler Wilsonia canadensis Yellow-breasted Chat* Icteria virens

BUNTINGS, SPARROWS, TANAGERS, AND ALLIES Snow Bunting Plectrophenax nivalis Fox Sparrow Passerella iliaca
Song Sparrow
Melospiza melodia
Lincoln's Sparrow
Melospiza lincolnii
Swamp Sparrow
Melospiza georgiana

White-crowned Sparrow Zonotrichia leucophrys White-throated Sparrow Zonotrichia albicollis Dark-eyed Junco Junco hyemalis Savannah Sparrow Passerculus sandwichensis Grasshopper Sparrow** Ammodramus savannarum American Tree Sparrow Spizella arborea Chipping Sparrow Spizella passerina Clay-colored Sparrow* Spizella pallida Field Sparrow Spizella pusilla Eastern Towhee Pipilo erythrophthalmus

Scarlet Tanager
Piranga olivacea
Dickcissel*
Spiza americana
Rose-breasted Grosbeak
Pheucticus ludovicianus
Northern Cardinal
Cardinalis cardinalis
Blue Grosbeak**
Guiraca caerulea
Indigo Bunting
Passerina cyanea

BLACKBIRDS, GRACKLES, AND ORIOLES
Baltimore Oriole
Icterus galbula
Red-winged Blackbird
Agelaius phoeniceus
Eastern Meadowlark
Sturnella magna
Common Grackle
Quiscalus quiscula
Brown-headed Cowbird
Molothrus ater
Bobolink
Dolichonyx oryzivorus

—Compiled by Linda Pivacek

B. List of Endangered, Threatened, and Special Concern Bird Species Occurring in Nahant

COMMON NAME	SCIENTIFIC NAME	MASSACHUSETTS STATUS	FEDERAL STATUS
Common Loon	Gravia immer	Special Concern	
Pied-billed Grebe	Podilymbus podiceps	Endangered	
American Bittern	Botaurus lentiginosus	Endangered	
Northern Harrier	Circus cyaneus	Threatened	
Sharp-shinned Hawk	Accipiter striatus	Special Concern	
Cooper's Hawk	Accipiter cooperii	Special Concern	
Peregrine Falcon	Falco peregrinus	Threatened	Threatened
Common Tern	Sterna hirundo	Special Concern	
Long-eared Owl	Asio otus	Special Concern	
Short-eared Owl	Asio flammeus	Endangered	
Northern Parula	Parula americana	Threatened	
Blackpoll Warbler	Dendroica striata	Special Concern	
Mourning Warbler	Oporornis philadelphia	Special Concern	
Grasshopper Sparrow	Ammodramus savannarum	Threatened	

—Compiled by Linda Pivacek