2008 - 2013

Open Space & Recreation Plan

City of New Bedford
Mayor Scott W. Lang

Cover design by
Medium Studio

Prepared by the City of New Bedford Planning Department

CONTENTS

I. PLAN SUMMARY 5

II. INTRODUCTION
- A. Statement of Purpose 5
- B. Planning Process and Public Participation 7

III. COMMUNITY SETTING
- A. Regional Context 8
- B. History of the Community 9
  - a. Topography Map 14
- C. Population Characteristics 15
- D. Growth and Development Patterns 18

IV. ENVIRONMENTAL INVENTORY & ANALYSIS
- A. Geology, Soils and Topography 24
  - a. Soils Map 25
- B. Landscape Character 28
  - a. Scenic/Historic Map 30
- C. Water Resources 31
  - a. Natural Communities Map 32
  - b. Living Waters Map 34
  - c. FEMA Map 37
  - d. Forested Wetland Map 39
- D. Vegetation 40
- E. Fisheries and Wildlife 41
  - a. Priority Habitats Maps 45
- F. Scenic Resources and Unique Environments 46
  - a. Bio Map 47
- G. Environmental Challenges 49

V. INVENTORY OF LANDS OF CONSERVATION & RECREATION INTEREST
- A. Protected Lands 54
  - a. Protected Lands Map 56
- B. Unprotected Lands 60
  - a. Unprotected Lands Map 62

VI. COMMUNITY VISION
- A. Description of Process 69
- B. Statement of Open Space & Recreation Goals 69

VII. ANALYSIS OF NEEDS
- A. Summary of Resource Protection Needs 70
- B. Summary of Community's Needs 71
- C. Management Needs, Potential Change of Use 74

VIII. GOALS AND OBJECTIVES 74

IX. FIVE-YEAR ACTION PLAN 75
a. North End Parks Map 83
b. Mid-North End Parks Map 84
c. Mid-South End Parks Map 85
d. South End Parks Map 86

X. PUBLIC COMMENTS 87

XI. REFEERENCES 88

APPENDIX A 89

APPENDIX B 118

I. PLAN SUMMARY

In review of the 2001 Open Space and Recreation Plan (OSRP) goals and objectives and the city's recreational and open space inventories, the Open Space and Recreational Committee has determined that many of the critical needs of our citizens would be better met if more efficient planning, management and maintenance of the city's parks and playgrounds existed. This was evident throughout the public process where citizens in every Ward noted that the city needed better maintenance and budget plans for each park, playground and preservation area. The citizens and the Committee feel that New Bedford has plenty of active and passive recreational opportunities to be enjoyed by everyone, from toddlers to seniors; we simply need to be better harness our assets to ensure that they are utilized to their fullest potential.

The one outstanding recreational item that is missing and desired by many is a greenway/bicycle trail, along the Acushnet River and Clark's Cove, linking New Bedford to Fairhaven and Dartmouth. The Planning Board and Conservation Commission vow to actively pursue easements along the Acushnet River to acquire the necessary land to construct a multi-use trail.

The Open Space Committee and the City of New Bedford are committed to fulfilling the goals of the revised 2008 OSRP. To this end, the Committee is invested in the creation/update of master plans for the five citywide parks, the Sassaquin Pond area and the Acushnet Cedar Swamp, the establishment of maintenance plans for playgrounds and sport fields, and the creation of yearly budgets for the maintenance of our parks and playgrounds.

II. INTRODUCTION

A. Statement of Purpose

The purpose of the update and revision of the Open Space & Recreation Plan is to take an extensive inventory of what exists in New Bedford today, determine which goals and objectives were met and which need improvement or amending, and most importantly, how do our citizens envision New Bedford in five, ten or twenty years from now. The OSRP has the potential to be an efficient tool that the City of New Bedford can wield when doing short-range planning, such as permitting subdivisions and mill overlay districts or long-range planning, in the forms of a city master plan, water resource protection or neighborhood planning. The OSRP will serve as a compass to ensure that all city departments are working in the same direction and have the same focus for the future of our city. This update of the 2001 OSRP is a thorough analysis of what exists on the ground today and what assets the city has to offer, and in turn, must protect to ensure our sustainability.

The following accomplishments demonstrate the goals that have been brought to fruition or taken to a new level over the last five years. As many had hoped, the addition of New Bedford Whaling National Historical Park, covering 33-acres, has acted as catalyst in the rehabilitation of the city's downtown. UMASS Dartmouth and Bristol Community Colleges have rehabilitated buildings in the downtown area for satellite campus locations. Wings Court, a pocket park located off Union Street, creates green space to be enjoyed by workers on their lunch hour and tourists passing the day, while maintaining a farmers market every Thursday afternoon, in season, consisting of locally grown produce. The second Thursday of the month is "AHA Night". AHA (Arts, History & Architecture) is a nonprofit group, established in 1999, whose mission is to provide opportunities for the public to enjoy our museums, galleries, art organizations, merchants and restaurants. Each night has a

different theme illustrating different aspects of New Bedford's arts, history and architecture. Their success can be measured by the growing artists community located here, including the renovation of the Ropeworks factory, located on the Acushnet River, into artist's live/work lofts. Other efforts to reclaim some of the city's historic character are ongoing. The City of New Bedford joined forces with the Preservation Society in a campaign to replant 2000 elm trees across the city by the year 2020. The first mill overlay district was approved to be placed over the Wamsutta Mills block in 2004, leading to the approval of three additional districts and subsequent mill renovations leading to the permitting of six hundred proposed dwelling units. Not only do these mill renovations and the mill overlay district ensure that New Bedford's textile heritage is preserved by reclaiming brownfields and creating clean living structures, they will provide green spaces and recreational opportunities consisting of boating and kayaking, and walking and bicycle trails along the Acushnet River and the harbor. Elsewhere, the city is enjoying the benefits of the remodeled Buttonwood Park Zoo and the park, pier and walking trails at Fort Taber. Neighborhood renewal efforts have been realized in the restoration of Clasky Common, located in the Acushnet Heights district. The park boasts historic lighting, benches, new plantings, improved handicap accessibility, memorials and walkways. During the summer months, a farmers market is held every Saturday, offering locally grown fruits and vegetables. The newly built Riverside Park, a brownfield Superfund site left over from the former Pierce Mill, was reclaimed by the city and expanded into a 10.8 acre park on the Acushnet River. The expansion of the park, aided by an Urban Self-Help Grant in 2004, allowed the city to make vast improvements on the site that are now enjoyed by people of all ages, while protecting natural resources and providing greenways and streetscape enhancements. Riverside Park now features the following: an interactive multiple jet water play system that allows users to activate the water only when using the facility, conserving water while providing a dynamic play activity replaced the older sprinkler play facility, older play equipment was replaced with updated equipment that complies with the current safety standards, the skate park and hockey rink remain, the two smaller basketball courts were combined into one full size, lighted court and the well used soccer field was replaced with an artificial youth sized field, walkways and jogging paths were created, a gazebo was constructed and offers a place to relax and enjoy the water views, picnic tables and benches were installed along with a natural lawn amphitheater around a small paved plaza for community events. The park also provides for a small parking area and restroom facilities, making it one of the most user-friendly community areas in the city's park system. Other forms of passive recreation include guided walking tours thru the New Bedford Whaling National Historic Park, New Bedford's working waterfront, the Preservation Society's summer tours thru our 19th century neighborhoods and harbor tours aboard motor boats thru the historical New Bedford/Fairhaven Harbor, including the Palmer's Island Lighthouse, the largest Hurricane Barrier on the East Coast and the working waterfront.

The Open Space Committee has worked to ensure that this revision takes a serious look at where New Bedford is today, where we want to be in five years and how we are realistically going to get there. Contained in this plan are the goals and objectives to achieve this vision. The Committee is devoted to implementing the actions necessary to see this vision realized for the City of New Bedford.

B. Planning Process and Public Participation

The Open Space & Recreation Committee was appointed by Mayor Scott W. Lang and consists of the following members:

David A. Kennedy, City Planner
Jill Maclean, Assistant City Planner
Patrick Sullivan, Director or Housing & Community Development
Greg Enos, Neighborhood Planner, Housing & Community Development
Catharine Rollins, Public Policy Advisor
Cynthia Wallquist, Director of Human Services
Chic Rose, Recreation Department
Felicia Monteiro, Coordinator of Council on Aging
Kevin Amaral, Department of Public Facilities
Fred Fuentes, Asst. to the Superintendent for Equity & Diversity, School Liaison
Walter Jones, Representative for the New Bedford Housing Authority
Scott Alfonse, Director of Environmental Stewardship
Richard Leary, Friends of Buttonwood Park Liaison
Aquila Rivers, Student Representative

On July 24, 2006, Mayor Scott W. Lang held a press conference with local media in attendance to kick off the public process for the City Master Plan and Open Space and Recreation Plan. The public process was scheduled throughout the month of August by the City of New Bedford's Planning Department, comprised of public forums, one in each of the City's six wards, to engage the citizens of New Bedford in brainstorming events to elicit their ideas, concerns and visions for the future of the city to be incorporated into the City's Master Plan and Open Space & Recreation Plan. The ward meetings were well attended by the public and painted a picture of the different aspects that each ward lends to the planning process. Records of each meeting were diligently scribed, as well as, recorded and shown on the local cable access channel. These ideas were then incorporated into a summary report, which was presented to the citizens at a citywide meeting held in October '06, and are available to the public in the City Planning Department and City libraries. Also included in the report out are the surveys that the attendees of the ward meetings were asked to fill out regarding their feelings on various aspects of the quality of life in New Bedford.

On July 8th, the City Planning Department in cooperation with local nonprofits held a charrette for the Fairhaven Mills Site. Located off I-195 and serving as a gateway location to the City of New Bedford, the site has unique investment and development potential due to its attractive waterfront location, access to an interstate highway and proximity to New Bedford's historic downtown as well as other potential development sites, such as the Hicks-Logan-Sawyer (HLS) District. The purpose of the Fairhaven Mills Planning Charrette was to allow meaningful public involvement to inform the future redevelopment of the site by having teams develop and articulate concepts that will be incorporated into a Request for Proposals (RFP) for a comprehensive development of the site. The report included recurring themes and goals associated with the Fairhaven Mills site focused on the economic development potential, tourism opportunities and historic preservation. The consensus vision is that of a mixed-use development that implements smart growth principles to provide enhanced economic opportunities, improve the quality of life for the residents, is welcoming and attractive to visitors while maintaining the site's urban mill history and character and enhancing the usage of and access to the river for recreational activities.

Throughout a twelve-month period, the City also held many meetings with the community to determine the best and most desired use for the Riverside Park site improvements. These

meetings established the public's strong desire for the site to provide recreational opportunities for multiple age groups and to maintain and enhance the existing active recreation areas, while offering passive recreation options and protecting the natural resources. The newly renovated Riverside Park resoundingly meets public approval and is a jewel in the city's park system.

The Open Space & Recreation Committee held several meetings in September and October of 2006 to analyze the goals and objectives in the 2000 Open Space & Recreation Plan and to review the input provided by the public thru the ward meetings. The Committee assessed the status each goal and its objectives to determine which had been met and which had not. Next, the Committee agreed upon the goals that remain relevant and how the city should strive to accomplish them. The Committee also determined the necessary actions to accomplish each objective and formed a timeline for the completion of these actions. In June of 2007 a draft revision of the Open Space & Recreation Plan was submitted to each relevant department, as well as, the City Council. On October 24, 2007 the City of New Bedford Park Board approved the revised Open Space and Recreation Plan, which was then submitted for approval to the Massachusetts Department of Conservation and Recreation.

III. COMMUNITY SETTING

The City of New Bedford is located in Bristol County, in Southeastern Massachusetts and consists of approximately 19.3 square miles. It is bordered by Dartmouth on the west, Freetown on the north, and Acushnet and Fairhaven on the east. The southern portion of the city is encompassed by Buzzards Bay, resulting in a peninsula with almost three miles of coastline. It is 56 miles from Boston, 33 miles from Providence, Rhode Island and 208 miles from New York City.

A. Regional Context

The city is easily accessible from various forms of transportation, including ground, air and water. Interstate 195 and Route 6 provide access east to Cape Cod and west to Fall River and Providence, RI, Route 140 leads to Boston and Route 18 provides access to the towns north of the city. The network of highways intersecting the city from all directions is why New Bedford is referred to as the "Gateway to Cape Cod".

The New Bedford Regional Airport serves as an aerial gateway to the islands of Nantucket and Martha's Vineyard via the frequent service provided by Cape Air. During the summer season Cape Air provides more than a dozen daily scheduled flights to the Islands and a half dozen during the winter months. Scheduled airtime from New Bedford to Nantucket is a convenient 25 minutes. Cape Air was established in 1989 when it flew its first Boston to Provincetown flight. Service from New Bedford was established in 1992. This year 24,000 passengers will be serviced by Cape Air via the New Bedford Regional Airport terminal.
The New Bedford Harbor Development Commission (HDC) represents a wide array of harbor interests and one of its primary roles is to support economic development along the waterfront. The HDC has planning, developing, and financing authority for city properties within the Port. For over 40 years, the HDC has overseen private development on the waterfront and has actively developed locations for marine industrial use, including North Terminal, South Terminal, and the Freight Ferry Terminal at State Pier. The HDC assesses user charges and fees for vessels that use its facilities. The HDC also leases properties, usually involving long-term arrangements. Revenues are used to operate and maintain the city's waterfront property. The recent completion of an 8,500-square foot passenger terminal at State Pier to support ferry services was completed in November of 2005. The terminal features a climate-controlled waiting area, ticketing facilities, baggage area, restrooms, visitor information center, coffee shop, and retail shop. New England Fast Ferry

(NEFF) offers high-speed passenger ferry service from New Bedford State Pier to Martha's Vineyard on a year-round schedule. The M/V Whaling City Express, which began operation in 2004, carries passengers from the city to the island in one hour. In addition, NEFF operates a traditional (two-hour) passenger ferry service from New Bedford State Pier to Martha's Vineyard in the spring and summer seasons. The Portuguese Princess replaces the Steamship Authority's Schamonchi service. The Alert (II), a 65-foot passenger and cargo vessel, operates out of Fisherman's Wharf, making trips to Cuttyhunk Island on a year-round schedule.

Located in the lower Acushnet River watershed, New Bedford is the most densely urbanized area on Buzzards Bay in southeastern Massachusetts. New Bedford's drinking water comes from surface water sources in Lakeville, Rochester, Middleboro, and Freetown. This water supply is shared in varying degrees with the neighboring Towns of Fairhaven, Dartmouth, Acushnet, and Freetown. The city disposes of its solid waste at the Crapo Hill Landfill located in the Town of Dartmouth. The landfill is operated by the Greater New Bedford Regional Refuse District, which is composed of the City of New Bedford and the Town of Dartmouth.

New Bedford is also home to the 1,100-acre Acushnet Cedar Swamp State Reservation, dedicated as a National Natural Landmark in 1972, which borders the city on the west. It is one the state's largest, wildest and most impenetrable swamps and contains a diversity of conditions and species in the glaciated section of the oak-chestnut forest type and is considered a Unique Resource Zone. Apponagansett Swamp, located south of the New Bedford Airport, is home to the spotted turtle, a species of special concern, and also a threatened plant - swamp oat - so rare in Massachusetts that only three other remaining locations are known, all on Cape Cod. Both swamps are headwater areas of the Paskamansett River, which supports a fish run and feeds an aquifer providing public water supply to the town of Dartmouth.

New Bedford is well known for its historic waterfront, the New Bedford Whaling National Historical Park, it's world famous fishing fleet ranked number 1 in the U.S. commercial fishing industry, and annual festivals. Recreational facilities in New Bedford are open to the public allowing individuals from neighboring communities to come and enjoy the city's many parks, beaches, and waterfront areas. Once again, New Bedford finds itself in prime location for a growing maritime industry: marine technology. Our city is halfway between Point Judith, RI and Woods Hole, MA centrally located in what is referred to as the "Marine Technology Corridor". As a Brownfields Showcase Community, New Bedford has made tremendous strides in revitalizing our community through brownfields remediation and continues to advocate for and promote reuse of sites to support numerous uses, including economic development, recreation and public access, and habitat restoration.

B. History of the Community

Historically, the City of New Bedford has been a commercial center for Southeastern New England. Since the era of whaling, followed by textiles and currently fish processing, industry has located on the shores of New Bedford Harbor, primarily because of its deep-water port, strategic location and solid workforce. New Bedford, located on the western side of the harbor, reflects both its current and past industries. The waterfront is lined with docks, storage and repair facilities, fish processing and packaging plants, large brick buildings that were formerly textile mills, and other commercial buildings.

Native Americans initially inhabited this area and took advantage of the plentiful resources. They hunted in the wooded inland areas, planted crops on the flat land along the coast, and utilized the abundant marine resources found in the harbor. In 1652, Wampanoag Indian Chief Massasoit and his son Wamsutta, deeded to a group of Plymouth Colonists, a large

tract of land that included present day New Bedford. This purchase covered over 100 square miles and the area was called “Dartmouth”. This area was largely wooded and sparsely settled, although by 1674 the English settlers, mostly Quakers from Plymouth and Rhode Island, outnumbered the Indians by two to one.

Clearing of the trees and farming was the principle vocation of the early settlers. By the middle of the 18th century a series of large farms with water frontage, trended up the hillside on the western bank of the Acushnet River within the present area of downtown New Bedford. The farmhouses were built on the crest of the hill along the King's Road, now County Street. Joseph Russell, who lived at the head of William Street, owned one of these widespread tracts. He conceived the idea of selling house lots and establishing a village. As 'Russell' was the family name of England's famous Duke of Bedford, it was suggested that the name of Bedford be adopted for the new village and it’s landing in honor of this royal connection. Subsequently the prefix "New" was added when the Commonwealth ratified the township because another town in the State had a prior claim to the original designation.

Joseph Russell engaged in offshore whaling and under his leadership the inhabitants of Bedford Village became whalers, shipbuilders and whaling outfitters. In 1765, Joseph Rotch, a senior member of an established Nantucket whaling family, arrived in New Bedford and purchased land from Joseph Russell. Rotch brought with him money and the expertise to advance the whale fishery. Within 10 years, 40 to 50 whale ships were registered in New Bedford. The families of Joseph Russell, Joseph Rotch, and Samuel Rodman, Rotch's son-in-law, dominated the economic development of New Bedford based on whaling and its affiliated industries. It was an industry that would thrive for more than 100 years and would earn the city the reputation as being the “whaling capital of the world”.

New Bedford was incorporated as a city in 1847 and when whaling reached its peak in 1857, the city had a population of 22,000 and was considered the richest city per capita in the world. Subsequently a number of events during the next 20 years influenced the decline of whaling: discovery of petroleum in Pennsylvania in 1859 eliminated the need for whale oil as an illuminant; many whale ships were lost during the Civil War (1861-1865); and in 1871 and 1876 more whale ships were destroyed, crushed in the Arctic ice. By the early 1900s, the use of spring steel and other products to replace baleen put an end to the baleen market and an end to whaling.

By 1850, the textile industry was well established in nearby Fall River and other towns in Massachusetts, but was just beginning in New Bedford. The transition from whaling to cotton manufacturing was slow. Because the whaling industry generated such large amounts of capital, there was little interest in New Bedford to venture into other businesses. However, enough capital was raised to begin a textile operation that was incorporated as the Wamsutta Mills in 1846 with operations beginning in 1849. It became the first successful textile mill in New Bedford. But because of the continued prosperity of the whaling industry, it was another 30 years before the textile industry really started to expand in New Bedford.

With the decline of whaling in the 1880s, profits from the whaling industry were used to finance textile mills. As the labor-intensive textile industry expanded, New Bedford’s population increased dramatically, from about 27,000 in 1880, when there were two mills, to about 121,000 in 1920 when there were 31 mills. After the turn of the century, eleven more mills were built, with construction ceasing in 1910. New Bedford became one of the largest producers of cotton yarns and textiles in the country. About 1920, at the height of prosperity, there were twenty-eight cotton establishments, operating seventy mills and employing 41,380 workers.

Taking the place of the majestic sails of the whaling rigs, textile's bulking brick mill complexes were built along the waterfront on the relatively cheap wetlands north and south of the central business district, and also at the head of Clarks Cove. The Municipal Water Works, which opened in New Bedford in 1869, insured a good supply of water and made expansion of the textile industry possible. However, sewage became a nuisance and public health issue during the textile period. New Bedford's dramatic increase in population produced a dramatic increase in the amount of sewage produced. By 1900, the sewer system in New Bedford had been extended north, west, and south of the original system, but with the pipes still emptying directly into the river.

In 1899, the board of health described the Acushnet River as "...water thick with slime and shores covered with filth from the sewers." The problem was so severe that the State Board of Health closed the Acushnet River to shell fishing and it remains closed to this date. In 1912, construction began on an interceptor sewer line to divert sewage into Buzzards Bay off the tip of Clark's Point; however, it did not completely stop sewage from emptying into the harbor. The sewer system in New Bedford was, and still is, a combined one, which carries storm runoff in the same pipes as domestic and industrial wastes. During heavy rains, the pipes are not large enough to handle the volume, and some untreated sewage enters the harbor at various points through combined sewer overflows.

The post-textile period was characterized by high unemployment and a decline in population as workers left the city in search of jobs. With textiles no longer dominating the economic marketplace, diverse forms of alternate industries began to recognize New Bedford's assets. Large, empty mill spaces, a large capable workforce and a low pay scale attracted rubber, metal, glass manufacturers and others. By the 1960's clothing manufactures occupied many of the empty textile mills and accounted for almost half of the manufacturing jobs. In 1955, an 800-acre Industrial Park opened in the northern part of the city. This park has expanded several times and currently supports over 2500 diverse jobs and is home to several preeminent international companies.

During this same period, New Bedford also renewed its connection to the ocean. Commercial fishing began its expansion to becoming the City's next major industry. As a northeast coastal location, hurricanes inflicted heavy damage to the fishing fleet and waterfront industries. In 1965, the Army Corps of Engineers completed the construction of a multi-million dollar hurricane barrier across the harbor entrance in order to protect the inner harbor from storm damage. This barrier resulted in New Bedford having one of the safest harbors in the east coast.

The New Bedford Redevelopment Authority was established in the 1960's and developed the North and South Terminal projects along the waterfront. This development rehabilitated existing wharves and piers and funded the construction of a new bulkhead. Nineteen acres of new waterfront land was created and modern fish processing plants were established in these locations. The port of New Bedford became a major fish-processing center on the east coast and is currently ranked #1 in the nation based on dollar value of landings.

Ironically, labeled as the nation's greatest fishing port, the New Bedford harbor is closed to all fishing and shell fishing. This is due to the presence of polychlorinated biphenyls (PCBs). This carcinogenic chemical was discharged into the harbor by two waterfront-manufacturing plants for approximately 30 years until the EPA banned the use of PCBs in 1978. In 1982, the New Bedford harbor was listed as a priority Superfund Site. The EPA, along with the Army Corps of Engineers has been conducting remedial dredging in the upper and lower harbor. The entire dredging operation may take up to thirty years to complete.

Despite these environmental challenges, New Bedford's geographic coastal location is an asset that the city continuously leverages. The Port of New Bedford has shaped the identity and economy of the city for over 150 years. The waterfront continues to be an important economic, cultural, and recreational resource--extending from the beaches on the peninsula, throughout the harbor and to the Acushnet River. It continues to be one of the nation's premier working waterfronts built around the fishing and seafood industries. Ocean shipping, ferry services, cruise and charter vessels, and recreational boats are bringing new activity to the waterfront and jobs to the region. The economy of New Bedford has diversified in recent years to include industries related to marine science technology, health care, medical devices, services and transportation.

Adjacent to the waterfront, in the city's downtown historic district, the New Bedford Whaling National Historical Park was established by Congress in 1996. This urban national park commemorates the American whaling industry and its contribution to our nation's history. To interpret this important part of history, the park is unique in that it partners with the city, local and regional institutions, and the Inupiat Heritage Center in Barrow, Alaska to achieve its mission.

New Bedford Whaling National Historical Park is a compelling destination that attracts thousands of visitors to New Bedford. Locally, the park functions as a source of community identity and pride and fosters a climate in which community initiatives and collaborations are encouraged.

The city boasts an abundance of cultural and historical resources that also foster a growing tourism industry. The New Bedford Whaling Museum houses the largest collection in North America devoted to the whaling industry. The New Bedford Art museum and several galleries represent a growing arts community that is bringing a new vitality in the downtown. The Zeiterion Theatre, a completely renovated structure dating back to Vaudeville days, is the beautiful home to the premiere performing arts center of the South Coast that offers exciting and eclectic entertainment. Drawing from its diverse cultures, the people of New Bedford hold events throughout the year to celebrate their heritage. The world's largest Madeiran Portuguese festival is held in New Bedford. Each month, on the second Thursday, AHA! Night is held in the historic downtown area to bring together people from across the city. Special events and exhibits focus on art, history and architecture.

New Bedford is a multi-ethnic and multicultural city and prides itself in its diversity. This can be attributed to migration from various locations. In the 1800s people came from Portugal, Ireland, Cape Verde, France, Canada, Poland, Germany, Russia, Italy, Syria, Spain, Greece, Czechoslovakia, Sweden, Scotland and Albania. All of these ethnic groups brought with them traditions and cultures that uniquely contribute to the quality of life

With a population close to 100,000 people, New Bedford is a community that maintains a high standard of living. Recreational opportunities are located throughout the entire city including its beautiful beaches, bike trails and numerous parks. The City's history is captured in its beautiful architecture. Most neighborhoods are historic in nature with a wide variety of architectural styles, comprised of a mix of single family and two and three family homes. Neighborhood schools are within walking distance, with three newly constructed middle schools and an outstanding high school.

New Bedford is a city that is steeped in historical traditions and takes pride in its past, present, and future. The city evolved from the whaling center of the world, into the leading cotton manufacturing center, and finally into a historic revitalized community with an

authentic working waterfront that enchants visitors as well as inhabitants. New Bedford's seaport location, diverse neighborhoods, rich history, outstanding architecture, vast cultural resources and a growing arts community makes it an appealing place to live, work and raise a family.

Map prepared by: Buzzards Bay National Estuary Program, 2870 Cranberry Highway, E. Wareham, MA 02538. February 2007.

C. Population Characteristics

Population Growth, Density and Projections

New Bedford's population declined by a little more than 6 percent in the 1990s. This drop was more representative of the economic situation the City experienced during the early-1990s than any long-term population trend. Between 1970 and 2000, New Bedford's population declined by only 8 percent; significantly less than other large east coast cities.

There was a substantial shift in the number of young residents living in New Bedford during the 1990s. In 2000, the City had nearly 18 percent fewer residents between the ages of 18 and 34 than in 1990. This trend mirrored statewide demographic changes. In Massachusetts, the population age 18 to 34 dropped by 16 percent in the 1990s.

Like other cities nationwide, New Bedford saw a significant increase in Latino residents in the 1990s. The additional 3,000 new Latino residents helped maintain the vitality of New Bedford's neighborhoods.

One out of five residents of New Bedford was born abroad. Approximately 18 percent of the City's foreign-born residents entered the United States during the 1990s. Ancestry data show that over a third of the City's residents are of Portuguese decent. Over 7,000 Cape Verdean residents make up New Bedford's second largest ethnic group. Approximately 17 percent of residents reported that they do not speak English well.

Growth, 1970 - 2000

Year	Population	%Change
1970	101,777	-
1980	98,478	-3%
1990	99,922	1%
2000	93,768	-6%

Distribution by Age Group, 1990 & 2000

Age Group	1990	2000
Under 18	25%	25%
18 to 34	27%	24%
35 to 64	30%	35%
65 and over	17%	17%

Growth by Age Group, 1990 - 2000

Age Group	1990	2000	%Change
Under 18	24,953	23,327	-7%
18 to 34	27,141	22,351	-18%
35 to 64	30,453	32,442	7%
65 and over	17,375	15,648	-10%

Distribution by Race/Ethnicity, 1990 & 2000

Race/Ethnicity	1990	2000
Hispanic	7%	10%
White	84%	75%
Black	3%	4%
API	0%	1%
Other	5%	10%

Growth by Race/Ethnicity, 1990 - 2000

Race/Ethnicity	1990	2000	%Change
Hispanic	6,653	9,576	44%
White	84,286	70,520	-16%
Black	3,492	3,503	0%
API	393	634	61%
Other	5,098	9,535	87%

First Ancestry Reported, 2000

Ancestry	2000
Portuguese	33,308
Cape Verdean	7,156
French (except Basque)	5,692
French Canadian	4,947
English	4,349
Irish	4,267
Polish	1,992
Italian	1,778

Foreign-Born Population, 1990 & 2000

Year of Entry	1990	2000
1990 to 2000	-	3,361
1980 to 1989	-	4,091
1970 to 1974	-	5,514
Before 1965	-	5,406
Total	20,865	18,392
% Foreign-born	21%	20%

Language Spoken at Home, 2000

Proficiency	Number	Percent
Speak Only English	54,487	62%
Speak Other Language	33,105	38%
Don't Speak English Well	15,180	17%

Income

Median household income in New Bedford fell slightly during the 1990s to $27,569. This trend can be attributed, at least partially, to smaller households with fewer workers contributing wages. New Bedford's real per capita income grew by 10 percent between 1989 and 1999.

Despite these improvements, New Bedford continues to struggle with poverty. The official poverty rate increased by 3 percentage points in the 1990s (from 17 percent in 1989 to 20 percent in 1999). Poverty rates are particularly high for the City's minority residents; over a third of African-American and nearly half of all Latino residents were living below the poverty level in 1999.

While a fifth of residents fall below poverty thresholds, a second fifth earn incomes that fall somewhere in the 100 to 200 percent of poverty range. These are people who are working but earning very low incomes. Often referred to as the "working poor", these families also rely on the essential services, such as childcare and healthcare, provided by social service agencies.

High school graduation rates grew by 8 % in the1990s, with 58% of residents obtaining a high school diploma or GED equivalent. The proportion of residents with degrees from 4-year colleges has remained the same at11 percent; this compares to over a third of Massachusetts residents statewide.

Household and Per Capita Income, 1989 - 1999

Income Type	1989	1999	%Change
Median Household	29,441	27,569	-6%
Per Capita	14,200	15,602	10%

Per Capita Income by Race/Ethnicity, 1989 - 1999

Race/Ethnicity	1989	1999	%Change
White	14,782	16,749	-6%
African-American	11,579	11,713	10%
Hispanic or Latino	6,539	7,610	16%

Percent Below Poverty, 1989 & 1999

Age Group	1989	1999
All Ages	17%	20%
Under 5	31%	36%
5 to 17	25%	27%
18 to 64	13%	18%
Over 64	13%	16%

Percent Below Poverty by Race, 1989 - 1999

Income Type	1989	1999
White	14%	16%
African-American	36%	34%
Hispanic or Latino	52%	47%

Household Income Distribution, 1999

Income	Households	Percent
Less than $10,000	7,144	19%
$10,000 to $14,999	4,105	11%
$15,000 to $24,999	6,411	17%
$25,000 to $34,999	4,606	12%
$35,000 to $44,999	4,251	11%
$45,000 to $59,999	4,805	13%
$60,000 to $74,999	3,017	8%
$75,000 to $99,999	2,284	6%
$100,000 to $149,9	1,235	3%
$200,000 or more	382	1%

Educational Attainment, 1990 & 2000

Degree	1990	2000
High School	50%	58%
College	10%	11%
Graduate	3%	3%

Ratio of Income to Poverty, 1989 & 1999

% of Poverty Leve	1989	1999
<50%	5%	8%
50 to 74%	7%	5%
75 to 99%	5%	7%
100 to 149%	11%	11%
150 to 199%	10%	11%
>200%	62%	58%

Households & Housing

The number of households in New Bedford dropped by 2 percent between 1990 and 2000. Family households declined at a faster rate; the City had 9 percent fewer after the 2000 Census. The ratio of family households to all households, however, remains (64 percent) comparable to the proportion statewide (65 percent). A more serious concern is the large number of children raised by single parents. In New Bedford, single mothers head 40 percent of families with children.

The number of housing units in New Bedford fell by 0.6 percent in the 1990s. Among New Bedford residents, no gains in homeownership rates were made throughout the 1990s. Less than 44 percent of residents own their own homes, 18 percentage points below the statewide homeownership rate. The majority of residents rent their homes. These households are severely rent burdened - 39 percent spend over 30 percent of their income on rent - 20 percent spend more than half. What makes these figures particularly alarming is that they come from data collected before New Bedford experienced rapid appreciation. Recent evidence suggests that rents along with housing prices are escalating rapidly in the City.

Families as a percentage of Households, 1990 & 2000

Household Type	1990	2000	%Change
Households	38,788	38,178	-2%
Families	26,576	24,266	-9%
% Families	69%	64%	-

Families with Own Children under Age 18, 2000

Family Type	Number	Percent
Families with Children	11,897	100%
Married Couples	6,286	53%
Single Mothers	4,701	40%

Change in Housing Stock, 1990 - 2000

Unit Type	1990	2000	%Change
Housing Units	41,760	41,511	-0.6%
Single-Family	13,795	13,854	0.4%
Multi-Family	27,965	27,657	-1.1%

Average Household Size, 1990 & 2000

Households	1990	2000
All	2.58	2.46
White	-	2.34
African-American	-	2.50
Hispanic or Latino	-	3.15

Homeownership Rates, 1990 & 2000

Householder	1990	2000
All Households	44%	44%
White	46%	48%
African-American	25%	25%
Hispanic or Latino	14%	13%

Housing Costs as a percentage of Income, 1999

% of Income	Renters	Owners
Less than 10%	8%	15%
10 to 14%	14%	18%
15 to 19%	12%	18%
20 to 24%	11%	14%
25 to 29%	11%	11%
30 to 34%	7%	6%
35 to 39%	5%	4%
40 to 49%	7%	5%
50% or more	20%	9%

Change in Median Home Value and Rent, 1990 - 2000

Median	1990	2000	%Change
Home Value	149,370	113,500	-24%
Gross Rent	525	455	-13%

D. Growth & Development Patterns

These profiles provide a detailed summary of New Bedford's social landscape. It relies on Census data to help leaders throughout the City think about how to measure progress, set benchmarks and target investment.

It is important to note that these data were collected in 2000. In general, Census 2000 captured an image of America at the height of the longest economic expansion in U.S. history. For New Bedford, however, the Census came during difficult times. In the 1990's the City was ravaged by a de-industrialization wave in which thousands of jobs were lost. While signs on the horizon indicate a brighter future for New Bedford, the data are a timely reminder of the challenges the rebuilding process will entail.

Patterns and Trends

The City of New Bedford was separated from Dartmouth in 1787. The development of the area grew in many directions mainly from the east to the west due to the thriving seaport. Since the entire land area of the city is considered very small it was developed quickly. Residential lots are modest in size as compared to those in other communities, which were not settled or developed until later years. Because of this type of development, the issues of open space and recreational areas are extremely important to a community like New Bedford.

Land use patterns throughout the city have not altered dramatically since the 2001-2006 Open Space and Recreation Plan, which described single family housing and condominium development in the north end of the city, as well as some housing growth in the west end and the downtown area. There has not been a substantial amount of housing development in the City of New Bedford for several years. As in every city and town in the nation, the economy has had a dramatic effect on the area's production of new housing stock.

The land area of the City of New Bedford is really quite developed. Vacant parcels are scarce but are still available throughout the city. It will be in the best interest of the City that developers be made aware of the need for upgrading or improving existing recreational facilities. If it is determined that an area needs upgrading or if an acquisition is needed for recreational harmony, potential developers could share in or absorb the costs of improving neighborhood recreational amenities.

According to the 2000 U.S. Census, there are 5,192 more housing units in the city than there were in 1970, even though today's population is a bit lower. A greater percentage of the population is living in single person households, and fewer households have five or more people. There has also been a small but steady increase in the percentage of owner occupied units since 1970 when there were 36,568 as compared to today, 41,760.

Infrastructure

Transportation System

The city is adequately served by a highway system traveling its length. Route 18 (J.F. Kennedy Memorial Highway) runs north/south, from Coggeshall Street in the north end to Cove Street in the south end. At the point where Route 18 terminates at Cove Street, Rodney French Boulevard continues vehicular access to the city's peninsula beach/park area. In the north end, Acushnet Avenue and Ashley Boulevard provide direct access to points north in the city and to Route 140. Interstate I-195 and Route 6 make the city accessible from Cape Cod on the east and Providence on the west.

Route 18 Improvements

The redesign of Route 18 has been studied from the days prior to the completion of the new roadway in the 1970s. The construction of the highway during urban renewal provided substantial improvements to automobile and truck connections to regional and interstate roads that became a major asset to the successful development of the seafood industry in New Bedford. However, the current design suffers from poor pedestrian connections linking the downtown back to the waterfront, allows automobile use at often unsafe speeds and lacks the physical characteristics that are needed to allow Route 18 to function as a suitable and attractive gateway to the city.

In 1998 the city worked closely with Congressman Barney Frank to secure $15 million in TEA-21 funding for the project. The city and MassHighway contracted with Fredric R. Harris (now DMJM-Harris) to work with a steering committee to design the project. The three principal objectives of the project were defined as: 1) improving roadway vehicular and pedestrian safety; 2) improving the visual quality of the roadway within the national park; and 3) significantly improving the safety and visual attractiveness of the pedestrian crossing function between downtown and the waterfront. This nine-month process led to a "master plan" for Route 18 that resulted in a 10 percent design concept of the road from Coggeshall Street to Cove Street. This design depicted the "surface alternative" as the preferred alternative and was submitted to Mass Highway for the Federal Highway Administration for review and evaluation. This submission (Technical Memorandum 3, Alternatives Analysis) was completed in May 2001. A scope of work for the project was agreed to between the city Mass Highway and DMJM Harris in 2005.

In January 2006 Mayor Scott Lang formed a project team to examine the current status of the project and propose a process for moving the project forward. This project team is made up of staff from key city departments, WHALE and NPS and several private and public stakeholders. The project team has worked closely with DMJM-Harris and Mass Highway to refine the scope of work for the project. This partnership has ensured that the project objectives and design intent reflect what was envisioned in 2000-2001 conceptual design, while adapting to the actual current conditions. The revised scope was submitted in July 2006. Mass Highway and FHA approved the final scope of work for the project in January 2007.

The final design has been separated into three phases and the downtown section will be the first phase to be constructed. The downtown phase places significant emphasis on public access to the waterfront from downtown and includes the creation of a new shared-use path linking the downtown with the southern section of the city and providing access to the Fairhaven Bridge. The plan also includes two new waterfront parks adjacent to state pier. These new public spaces will provide enhanced opportunity for public gathering, performances, and interpretive opportunities and are consistent with the master plan objectives for the project.

DMJM Harris is currently completing final revisions to the 25 percent design submission and the final design public hearing (held by MassHighway) is anticipated to be scheduled in the spring of 2008. It is anticipated that all design and bidding documents will be completed in early 2009. With the approval of the final design in early 2009 it is estimated that construction will start in August 2009 and be substantially completed in 2010.

Water System

New Bedford's drinking water comes entirely from surface water sources in a watershed that extends over 50 square miles. The principal streams and storage areas are the Little Quittacas, Great Quittacas, Pocksha, Assawompset and Long Ponds, located to the north of the city in the Towns of Lakeville, Rochester, Middleboro, and Freetown. The water is treated at the Quittacas Water Treatment Plant and pumped to the High Hill Reservoir; from there it is piped into houses and businesses in New Bedford.

New Bedford's water supply, which has been under the jurisdiction of the Massachusetts Water Management Act since January 1988, is sufficient to meet present usage demands. In addition to supplying its own needs, the city also supplies water in varying degrees to the four neighboring Towns of Fairhaven, Dartmouth, Acushnet, and Freetown. In 1998, the water department distributed 4.9 gallons of water to Greater New Bedford customers. Two separate systems presently serve these needs; the Lakeville Pond complex and the Acushnet River.

Test results from 1998 indicate the water supplied by the New Bedford Water Department met or exceeded all state and federal requirements, with the exception of lead. Although the water supplied by the New Bedford Water Department is virtually free of lead, some older home plumbing systems leach lead into the water. Twenty out of 100 homes sampled had lead levels that exceeded the Environmental Protection Agency's "Action Level". The New Bedford Water Department ensures that the drinking water remains safe by regular monitoring and testing.
In past years, the system has benefited from several improvements, which were implemented to meet the area's future water demands. A Waterworks Improvement Plan was conducted by consulting engineers to ensure the adequate supply and distribution of the city's water needs to the year 2020. The plan assesses groundwater supply sources in the wetlands located in the northeast part of the city and will enable the city to establish policy decisions regarding the protection and ultimate use of these wetlands and groundwater supplies. The city has begun examining the potential of gaining water rights to fresh water bodies to the north of the city in order to meet the area's water demand beyond the year 2020.

Waste Water Collection and Treatment System

New Bedford's waste water system currently serves about 60% of the city's area, and approximately 95% of the population. In addition, the system receives flow from approximately 600 dwelling units in the Town of Dartmouth and 60 units in Acushnet. The system also receives and treats a limited amount of septage, which is pumped from septic systems in the unsewered areas of New Bedford, Acushnet, Dartmouth, Fairhaven, and Mattapoisett.

The system consists of approximately 128 miles of older combined sewer in the south and central parts of the city, plus about 76 miles of separate sewers in the north end and 23 pump stations. Wastewater is collected by a series of local sewers and conveyed by interceptor sewers, to the Secondary Treatment Plant at Fort Rodman. The wastewater and associated pollutants received at the New Bedford treatment facility originate from a wide variety of complex sources, which include domestic wastewater from residential activities and non-domestic wastewater from commercial, industrial, and other business activities in the service area. In addition, the facilities receive extraneous water through cracks, which have occurred due to the age, condition, and location of more than 204 miles of sewer pipe tributary to the treatment system. During rainstorms, the system receives combined sewage flow that results from mixing of sewage and urban runoff.

The New Bedford Water Pollution Control Facility, located at the extreme South End of the city at Fort Rodman, is a conventional activated sludge treatment process. The facility has a design flow of 30 MGD (Million Gallons per Day) with a peak flow capacity of 75 MGD. Construction of the treatment facility, designed by Camp Dresser and McKee, began in February 1993 and was completed (and on line) on August 22, 1996. The average flow of 24 MGD discharges through a 3,300-foot outfall pipe into Buzzards Bay. The facility, operated by Professional Services Group, meets all National Pollutant Discharge Elimination System (NPDES) permit requirements.

At one time a critical element of the City of New Bedford's wastewater collection and treatment system - the 30 MGD water pollution control facility - was in violation of the Clean Water Act. In 1987, the city entered into a consent decree with the United States Environmental Protection Agency, the Massachusetts Department of Environmental Protection, and the Conservation Law Foundation to begin planning, design, and construction of a new water pollution control facility to provide both primary and secondary treatment. The consent decree specifically mandated that the city improve its wastewater collection and treatment systems, and included a court-enforceable schedule.

The successful start-up of the water pollution control facility on August 22, 1996 was a critical milestone in the process to improve the city's treatment systems. Through the realization of this project, the City of New Bedford has significantly improved water quality in Buzzards Bay for beachgoers, clammers, and sailors. Since operation of the new facility started, conventional pollutant facility discharges are substantially cleaner than that from the old facility; and for the first time in decades, there is unrestricted public access to the southernmost peninsula. As both a tribute to its heritage and in recognition of its resources for the future, the city is reinvesting in its waterfront area. New public recreation facilities are being created which will include some 4 miles of coastal recreational trails as well as over one mile of newly added waterfront public access. The City of New Bedford is proud to be taking part in protecting the bay and preserving its future.

Long-Term Development Patterns
Land development in New Bedford reflects a variety of uses as identified in the following table:

Table 2: Land Use in Acres, 1971 to 1985

	1971	1985	%Change
Agriculture	188	191	1.6%
Forest, Wetlands, Open Space	4,715	4,383	-7.0%
Recreation	574	575	0.2%
Urban	7,340	7,672	4.5%
Water	------	122	-----

(Source: University of Massachusetts, Department of Forestry & Wildlife Management, Remote Sensing)

Comparative land use statistics show that certain sections of the city have experienced both residential and commercial sprawl. Significant amounts of land in the northwest have been used for the development of single-family detached dwellings as well as commercial and office space development relocated from the downtown area.

Despite this sprawl, population projections imply that future residential growth will spread slowly. Conservation data confirms that large vacant tracts of residentially zoned land possess significant development limitations. Thus recreation policy need not anticipate significant residential growth in undeveloped sections of the city. Rather, policies should be directed toward adequately serving existing neighborhoods. Further, in an effort to abate development on lands designated by the U.S. Soil Conservation Service as having serious development limitations, conservation and zoning policies should be directed at preserving unique or fragile areas in the city's far north and west sections.

Zoning
The city's Zoning Ordinance is a very simple document. It primarily governs dimensions, parking, and location of uses (through zoning districts). Almost any usage is allowed in the business districts. There are few standards regarding design, lot coverage, environmental impact or relation to broader planning objectives. In sum, this is a zoning ordinance that provides general guidelines to protect residential neighborhoods from noxious business uses, and distinguishes generally between light and heavy industry. Beyond that, the private market is left to decide what should occur where.

This situation is a double-edged sword. On the one hand, New Bedford offers few regulatory hurdles, and this is very attractive in these days of intense regulating. On the other hand, this approach sets few standards to encourage high quality development. Continued low quality development will eventually catch up with a community, decrease property values, and make the area less attractive to newly formed businesses. A low regulation, low standards strategy ultimately attracts older, low profit margin businesses that cannot invest heavily in a property, and nor do they wish to.

Buildout Study
As part of its Community Preservation Initiative, the Executive Office of Environmental Affairs recently performed buildout analyses for all municipalities in Massachusetts. According to the projections for New Bedford, if buildout were to be reached under current

zoning, the city could expect to have an additional 12,682 residents, which would create a total city population of 112,609. Along with these new residents would come 4,370 additional housing units and 3,936 additional children entering the school system. The new residential growth would increase the demand for water by 950,385 gallons per day.

According to the study, commercial and industrial growth would consume another 539 acres and require 1,761,051 additional gallons of water per day. Municipal solid waste issues would also be of concern. At buildout, 10,898 new tons per year of non-recyclable solid waste would be produced, as well as 2,915 tons per year of recyclable solid wastes. All of this new growth would require the creation of 33 more miles of roadways throughout the city.

Additional growth will put increased pressure on the remaining open spaces and historic sites in the city. In an effort to alleviate some of the growth pressures being experiences in many Massachusetts communities the Community Preservation Act was recently passed. This legislation allows Massachusetts communities to adopt by referendum a 1% - 3% surcharge on property taxes, which goes into a Community Preservation Fund. Of the money raised from this surcharge, 10% must be set aside to buy open space, 10% to create affordable housing, and 10% to do historic preservation work. The remaining 70% can be used on any of the three categories.

If New Bedford were to adopt a 3% surcharge on real property, it is estimated that nearly $1.5 million could be raised yearly. Also, additional state funds are being made available to participating communities from money collected from a new surcharge on documents filed at the Registry of Deeds and Land Court offices. These surcharges are expected to generate approximately $30 million every year.

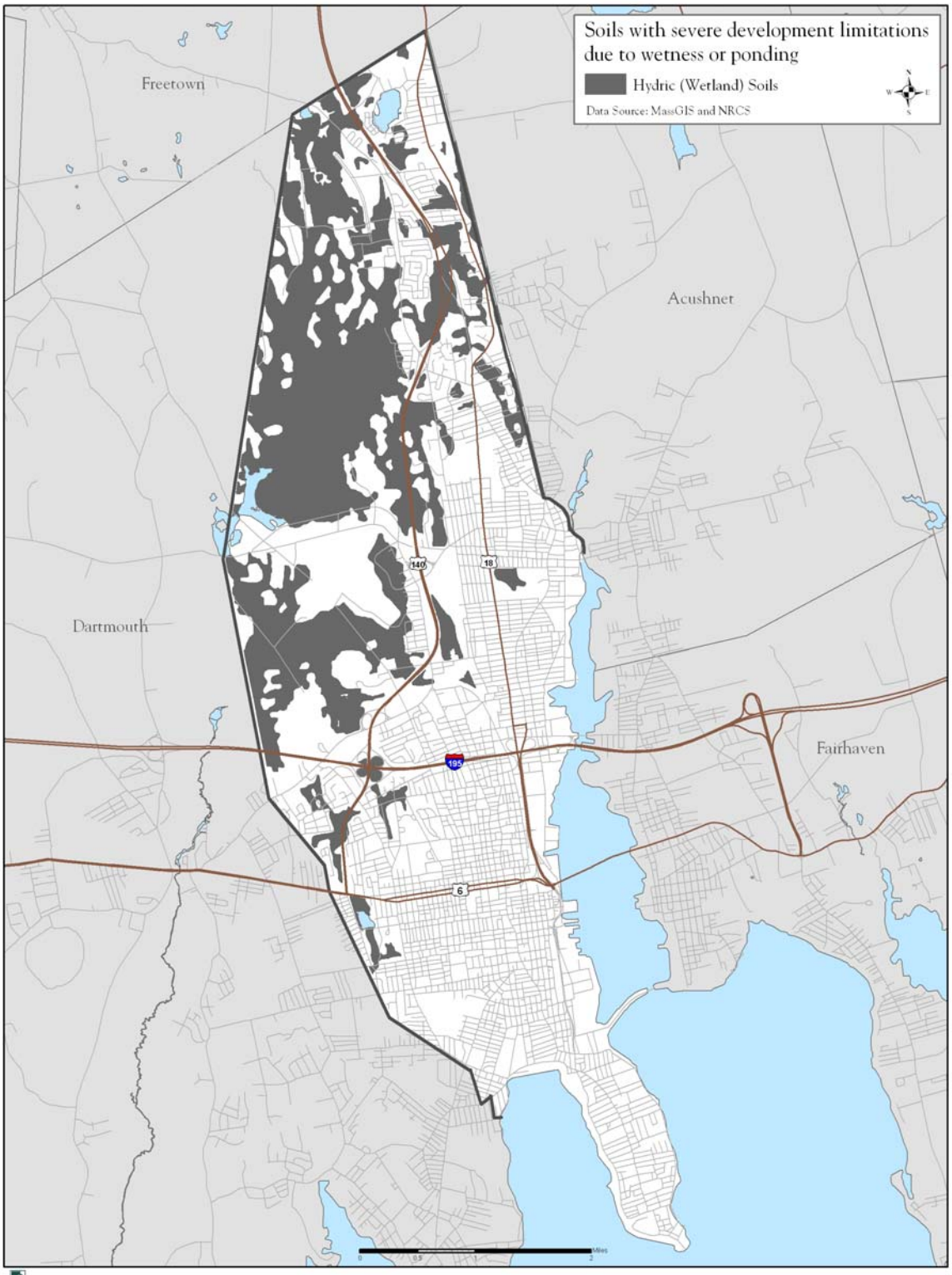
IV. ENVIRONMENTAL INVENTORY & ANALYSIS

A. Geology, Soils, Topography

Geology & Topography
The City of New Bedford, incorporated in 1847, is roughly rectangular being 12 miles long and having a maximum breadth of three miles. The city is located on the Acushnet River and has a nine-mile waterfront protected by a hurricane barrier. The general topography of New Bedford is gently rolling terrain, most prominent in the midwestern part of the city, and gradually sloping eastward towards the Acushnet River. Slopes are generally less than three percent, excepting the aforementioned midwestern section, where slopes approach five to seven percent. Natural drainage patterns in New Bedford consist of a series of swamps connected by several narrow streams whose irregular patterns reflect glacial events. Generally, the city's topography presents no limitations to recreational activity with the exception of canoeing and hiking; due to the absence of well-defined rivers and the swampy condition of most vacant land in the northwest section of the city.

Soils
Generally, soil composition in the New Bedford area is classified as Paxton-Woodbridge-Whitman association. Characteristics of these soils indicate nearly level to moderately steep soils that are well drained, moderately well drained, and very poorly drained; on glacial uplands. The stoniness associated with these soils generally limits farming and active, open field recreational activity. In those areas where stones have been removed, however, the soils have few limitations for recreational activities of any type.

The soils in the northern section of the city pose significant limitations for residential and commercial development due to excessive wetness and ponding. The majority of the upper-central part of New Bedford is comprised of the Acushnet Cedar Swamp, a large wetland area owned by the Massachusetts Department of Environmental Management.



Map prepared by: Buzzards Bay National Estuary Program, 2870 Cranberry Highway, East Wareham, MA 02538. February 2007.

Table 3: Soil Types in New Bedford That Pose Limitations to Development

Map symbol	Soil Name	Septic Tank Absorption Fields	Sewage Lagoon Areas	Home Sites	Small Commercial Buildings	Local Roads
CtB	Charlton-Paxton fine sandy loams, rocky, 3-8% slopes	Slight	Severe (seepage)	Slight	Moderate slope	Slight
CtC	Charlton-Paxton fine sandy loams, rocky, 8-15% slopes	Moderate (slope)	Severe (seepage)	Moderate (slope)	Severe (slope)	Moderate (slope)
CuC	Charlton-Rock outcrop-Paxton complex, 3-15% slopes	Moderate (slope)	Severe (seepage, slope)	Moderate (slope)	Severe (slope)	Moderate (slope)
DeA	Deerfield loamy sand, 0-5% slopes	Severe (wetness)	Severe (wetness)	Severe (wetness)	Moderate (wetness)	Moderate (wetness)
Fm	Freetown Muck	Severe (wetness)	Severe (wetness)	Severe (wetness)	Severe (wetness)	Severe (wetness)
Fp	Freetown muck, ponded	Severe (ponding)	Severe (ponding)	Severe (ponding)	Severe (ponding)	Severe (ponding)
GcB	Gloucester-Hinkley complex, undulating	Severe (poor filter)	Severe (seepage)	Moderate (large stones)	Moderate (large stones)	Moderate (large stones)
GhB	Gloucester-Hinkley complex, very stony, undulating	Severe (poor filter)	Severe (seepage)	Moderate (large stones)	Moderate (large stones, slope)	Moderate (large stones)
HgA	Hinkley gravelly fine sandy loam, 0-3% slopes	Severe (poor filter)	Severe (seepage)	Slight	Slight	Slight
HgB	Hinkley gravelly fine sandy loam, 3-8% slopes	Severe (poor filter)	Severe (seepage)	Slight	Moderate (slope)	Slight
HgC	Hinkley gravelly fine sandy loam, 8-15% slopes	Severe (poor filter)	Severe (seepage, slope)	Moderate (slope)	Severe (slope)	Moderate (slope)
MeA	Merrimac fine sandy loam, 0-3% slopes	Severe (poor filter)	Severe (seepage)	Slight	Slight	Slight
MeB	Merrimac fine sandy loam, 3-8% slopes	Severe (poor filter)	Severe (seepage)	Slight	Moderate (slope)	Slight
NgA	Ninigret fine sandy loam, 0-3% slopes	Severe (wetness, poor filter)	Severe (wetness, seepage)	Severe (wetness)	Moderate (wetness)	Moderate (wetness)
PfB	Paxton fine sandy loam, 3-8% slopes	Severe (percs slowly)	Moderate (slope)	Moderate (wetness)	Moderate (slope, wetness)	Moderate (wetness)
Map symbol	Soil Name	Septic Tank Absorption Fields	Sewage Lagoon Areas	Home Sites	Small Commercial Buildings	Local Roads
PfC	Paxton fine sandy loam, 8-15% slopes	Severe (percs slowly)	Severe (slope)	Moderate (slope, wetness)	Severe (slope)	Moderate (slope, wetness)
PgB	Paxton very stony fine sandy loam, 0-8% slopes	Severe (percs slowly)	Moderate (slope)	Moderate (wetness)	Moderate (slope, wetness)	Moderate (wetness)

PgC	Paxton very stony fine sandy loam, 8-15% slopes	Severe (percs slowly)	Severe (slope)	Moderate (slope, wetness)	Severe (slope)	Moderate (slope, wetness)
PgD	Paxton very stony fine sandy loam, 15-25% slopes	Severe (slope, percs slowly)	Severe (slope)	Severe (slope)	Severe (slope)	Severe (slope)
PhB	Paxton extremely stony fine sandy loam, 0-8% slopes	Severe (percs slowly)	Moderate (slope)	Moderate (wetness)	Moderate (slope, wetness)	Moderate (wetness)
PhC	Paxton extremely stony fine sandy loam, 8-15% slopes	Severe (percs slowly)	Severe (slope)	Moderate (slope, wetness	Severe (slope)	Moderate (slope, wetness
PoA	Pipestone loamy sand, 0-3% slopes	Severe (wetness, poor filter)	Severe (wetness, seepage)	Severe (wetness)	Severe (wetness)	Severe (wetness)
RdA	Ridgebury fine sandy loam, 0-3% slopes	Severe (percs slowly, wetness)	Slight	Severe (wetness)	Severe (wetness)	Severe (wetness)
ReA	Ridgebury extremely stony fine sandy loam, 0-3% slopes	Severe (percs slowly, wetness)	Slight	Severe (wetness)	Severe (wetness)	Severe (wetness)
ReB	Ridgebury extremely stony fine sandy loam, 3-8% slopes	Severe (percs slowly, wetness)	Moderate (slope)	Severe (wetness)	Severe (wetness)	Severe (wetness)
Sc	Scarboro muck	Severe (ponding, poor filter)	Severe (seepage, wetness)	Severe (ponding)	Severe (ponding)	Severe (ponding)
SdA	Sudbury fine sandy loam, 0-3% slopes	Severe (wetness, poor filter)	Severe (wetness, seepage)	Moderate (wetness)	Severe (wetness)	Moderate (wetness)
SdB	Sudbury fine sandy loam, 3-8% slopes	Severe (wetness, poor filter)	Severe (wetness, seepage)	Severe (wetness)	Moderate (slope, wetness)	Moderate (wetness, frost action)
Ss	Swansea course sand	Severe (ponding, poor filter)	Severe (wetness, seepage)	Severe (wetness)	Severe (wetness)	Severe (wetness)
Map symbo l	Soil Name	Septic Tank Absorption Fields	Sewage Lagoon Areas	Home Sites	Small Commercia l Buildings	Local Roads
Sw	Swansea muck	Severe (wetness, poor filter)	Severe (wetness, seepage)	Severe (wetness)	Severe (wetness)	Severe (wetness)
WgA	Whitman fine sandy loam, 0-3% slopes	Severe (percs slowly, ponding)	Slight	Severe (ponding)	Severe (ponding)	Severe (ponding)
WhA	Whitman extremely stony fine sandy loam, 0-3% slopes	Severe (percs slowly, ponding)	Slight	Severe (ponding)	Severe (ponding)	Severe (ponding)
WnB	Windsor loamy sand, 3-8% slopes	Severe (poor filter)	Severe (seepage)	Slight	Moderate (slope)	Slight

WnC	Windsor loamy sand, 8-20% slopes	Severe (poor filter)	Severe (slope, seepage)	Moderate (slope)	Severe (slope)	Moderate (slope)
WrA	Woodbridge fine sandy loam, 0-3% slopes	Severe (percs slowly, wetness)	Slight	Severe (wetness)	Moderate (wetness)	Severe (frost action)
WrB	Woodbridge fine sandy loam, 3-8% slopes	Severe (percs slowly, wetness)	Moderate (slope)	Severe (wetness)	Moderate (slope, wetness)	Severe (frost action)
WsB	Woodbridge very stony fine sandy loam, 0-8% slopes	Severe (percs slowly, wetness)	Moderate (slope)	Severe (wetness)	Moderate (slope, wetness)	Severe (frost action)
WtB	Woodbridge extremely stony fine sandy loam, 0-8% slopes	Severe (percs slowly, wetness)	Moderate (slope)	Severe (wetness)	Moderate (slope, wetness)	Severe (frost action)

B. Landscape Characteristics

The natural land character of the New Bedford area was formed thousands of years ago by the actions of glaciers. Smoothed by erosion and plant life, it is peppered with human settlements that in places enhance the natural landforms and in other places degrades them. For instance, downtown New Bedford is made all the more quaint by the historic architecture and cobblestone streets. On the other hand, Route 18 cuts a swath through the city, creating a physical barrier to the city's working waterfront. Following are the major natural and man-made characteristics of the New Bedford landscape.

New Bedford Harbor

The Acushnet River originates at the New Bedford Reservoir in the Town of Acushnet and winds its way south through Acushnet and New Bedford, opening up at Buzzards Bay and forming New Bedford Harbor. The city of New Bedford was formed around this harbor and has a rich history of seafaring traditions that continue to this day. Once the whaling capital of the world, New Bedford is proud to have a working waterfront that is home to more than 480 fishing and transit vessels. No longer searching for whales, these vessels are mainly fishing for ground fish and scallops, supplying the nation with a fresh product, second to none.

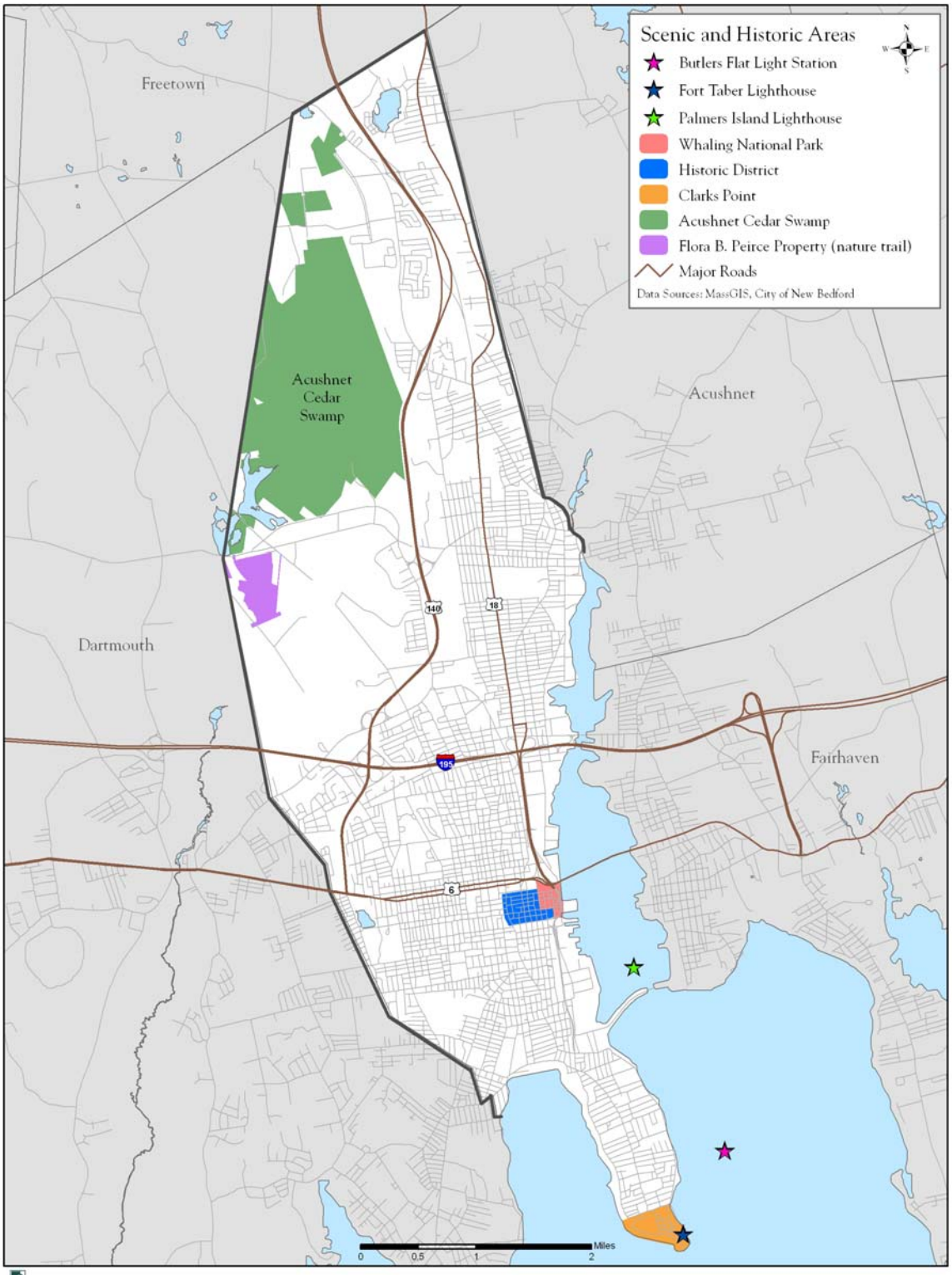
The harbor also provides recreational opportunities to residents of New Bedford and Fairhaven, as well as visitors. The Whaling City Rowing Club allows its members to have the unique experience of rowing through the harbor in authentic reproduction whaleboats. Additionally, Pope's Island Marina provides services to recreational boaters with their own vessels, as well as park facilities for local and regional visitors.

Hurricane Barrier

New Bedford Harbor is well sheltered by a hurricane barrier that stretches 3.5 miles along the South-End of New Bedford to the Town of Fairhaven. The hurricane barrier was built to protect the harbor from devastating hurricanes, such as those of 1953 (Carol) and 1955 (Dianne). Taking two years to complete and costing $18.2 million, it is the largest stone structure in the eastern United States. Standing 26 feet above mean high tide, only a few waves have managed to splash over the top. Spanning 150 feet, each of the two massive gates into the harbor weighs 40.5 tons, and can clamp shut in 12 minutes.

Acushnet Cedar Swamp

The Acushnet Cedar Swamp is an 1,800-acre area in the northern part of the city. The land was acquired by the Commonwealth of Massachusetts in 1971 and is often referred to as "one of Massachusetts' largest, wildest, and most impenetrable swamps". It contains areas of upland forest adjacent to a large wetland system comprised of bogs, swamps, and a pond. This wetland and some of the species it supports is discussed further in "Wetlands" under the Water Resources section of this plan.



Map prepared by: Buzzards Bay National Estuary Program, 2870 Cranberry Highway, East Wareham, MA 02538. February 2007.

C. Water Resources

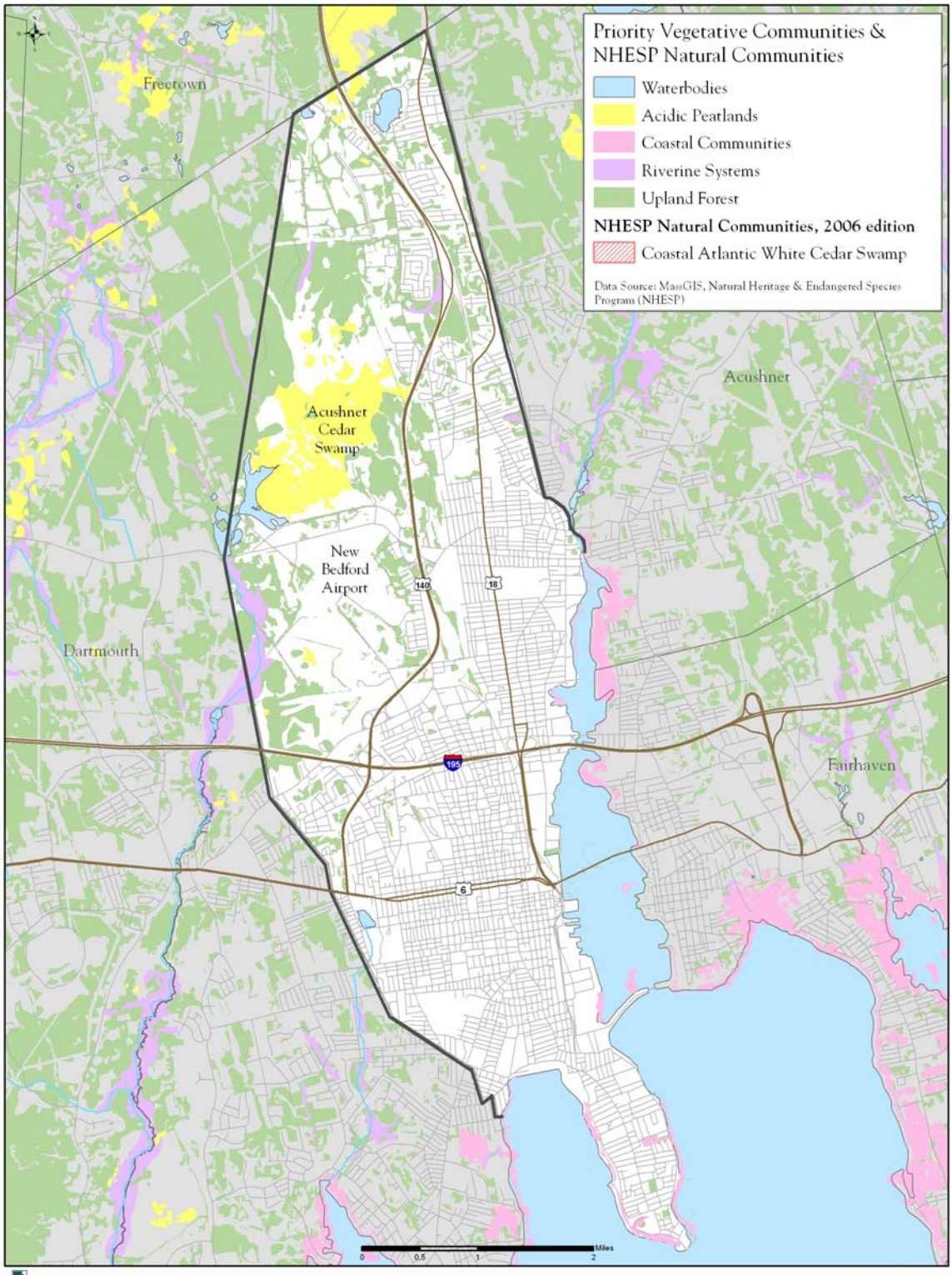
There are five major bodies of water in the city, with the Acushnet River/New Bedford Harbor system being, by far, the largest. The city is also home to the Paskamanset River and three ponds: Sassaquin, Turners, and the Buttonwood Park pond.

For the majority of its length, the Paskamansett River is an acidic, low gradient swamp stream. It begins as an outlet to Turners Pond, a man-made pond that is fed by the Acushnet Cedar Swamp. The river flows for 10 miles until it reaches the Slocums River in Dartmouth. The Paskamansett mainly supports warm water fish communities, although according to the Division of Fisheries and Wildlife, some coldwater pockets may exist. It also acts as a run for river herring during their annual migration.

Turners Pond is a 55 to 62 acre impoundment at the head of the Paskamansett River. The maximum depth of the pond is 20 feet, but the average depth is 4 feet. The pond is very acidic and heavily vegetated with a mud bottom. It is home to several species of fish, such as black crappie, brown bullhead, pumpkinseed sunfish, yellow perch, red fin pickerel, chain pickerel, and American eel. However, due to contamination from heavy metals, the consumption of fish from this pond is prohibited. In the 1970s the Division of Fisheries and Wildlife stocked Turners Pond on two occasions; in 1972 with 13 chain pickerel and in 1973 with 75 largemouth bass. No further stocking has occurred due to the contamination. The pond is still used by people for recreational fishing and boating.

Sassaquin Pond is a 34-acre, warm water pond that is moderately deep (about 7 feet average) and clear. It is a kettle pond located within the Taunton River Watershed. The bottom consists of sand and muck with minor rock outcroppings and scant vegetation. The pond is located north of the city and is easily accessible from the pond's south end. Residents heavily utilize it, with many cottages along its shores. In the pond's history, the Division of Fisheries and Wildlife (DFW) have stocked it with more than 76,600 fish; between 1914 and 1950. Fish species in the pond include black crappie, white perch, yellow perch, pumpkinseed sunfish, brown bullhead, and shiners. It is used for recreational fishing but is not able to support game fish such as bass and pickerel. The City of New Bedford Health Department banned recreational swimming in 2004 due to bacterial contamination.

The Buttonwood Park Pond is located in an urban park, next to the new Buttonwood Park Zoo. It has long been popular with children and adults who enjoy feeding the ducks and swans even though this practice further deteriorates the water quality of the pond. The pond is very shallow and receives large amounts of nutrients from stormwater runoff, waterfowl and decomposing food left from well-meaning residents. The excessive nutrients have resulted in high levels of plant growth and decreases in oxygen levels. In August, 1995 and May of 2004 fish kills occurred and were investigated by the DFW. The DFW noted that fish kills could be expected to occur during the warm summer months and that it may be necessary to install fountains or other aerating devices. The fish kill which occurred in the spring of 2004 was due to a bacterial infection likely brought on by combination of stressors such as the spawning season combined with a rise in water temperature.

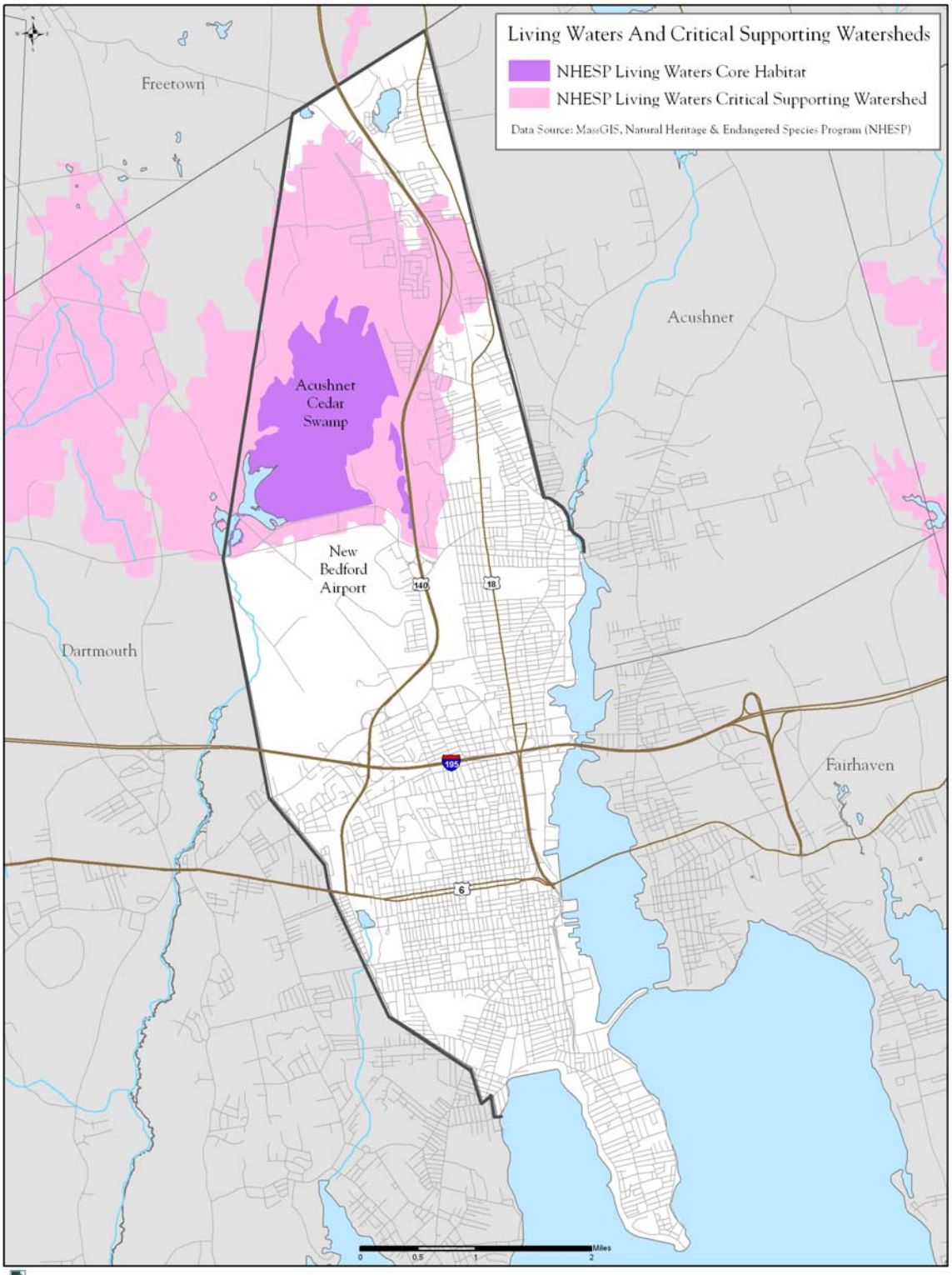


Map prepared by: Buzzards Bay National Estuary Program, 2870 Cranberry Highway, East Wareham, MA 02538. April 2007.

Acushnet River / Inner New Bedford Harbor Watershed

The Acushnet River watershed encompasses 11,497 acres and covers six principal municipalities, including New Bedford, Fairhaven, Acushnet, Rochester, Freetown, and Lakeville. According to the 2003 Coalition for Buzzards Bay State of the Bay Report 24.5% of the watershed is developed, 7.3% is protected open space and 68.2% is undeveloped unprotected open space.

The northern section of the watershed is comprised mainly of forests and land in agricultural uses. The heavily urbanized areas lie to the south. Included within the watershed is the New Bedford Reservoir. The reservoir is located in the Town of Acushnet, but is owned by the city. It is not currently used for water supply but remains as an emergency reserve.



Map prepared by: Buzzards Bay National Estuary Program, 2870 Cranberry Highway, East Wareham, MA 02538. April 2007.

Nitrogen Loading Evaluation

In New Bedford Harbor, as in most coastal waters around Buzzards Bay, nitrogen is the nutrient that usually limits the growth of algae. Algae include macro algae or "seaweeds", and micro algae such as phytoplankton, which form the base of many marine food webs. Increased supplies of nitrogen threaten the harbor by stimulating blooms of both. Long-term exposure of coastal waters to excessive nitrogen gradually alters coastal ecosystems, causing scallop and eelgrass populations to be replaced by floating algae or macroalgae.

In addition, decay of macroalgae causes unpleasant odors and depletes oxygen in the water. Severe oxygen depletion can kill fish and shellfish. There is also evidence that nutrient loading promotes (directly and indirectly) the survival of coliform bacteria, which contributes to closures of shellfish areas. Algae blooms and accumulation of macroalgae may also cause aesthetic problems and inhibit typical recreational uses of the water such as swimming and boating. Overall, nitrogen loading is one of the most serious long-term problems threatening many embayments around Buzzards Bay.

The Acushnet River suffers from excessive nitrogen loading from its surrounding watershed. Residential development in Acushnet and East Freetown, discharges from the Fairhaven sewage treatment plant, and combined sewer overflow (CSO) discharges from the New Bedford sewer system account for the majority of the loadings to the harbor. In 1994, the Buzzards Bay Project National Estuary Program released a nitrogen loading study for all Buzzards Bay embayments entitled A Buzzards Bay Embayment Subwatershed Evaluation: Establishing Priorities for Nitrogen Management Actions. According to the data in this report, the Acushnet River has already exceeded its recommended nitrogen-loading limit by 103%. Additionally, eight years of water quality data collected by the Coalition for Buzzards Bay indicates that the harbor is one of the most eutrophic sites in all of Buzzards Bay.

Elimination of CSO dry and wet weather flows may result in improved water quality, however, recommended nitrogen loading goals can never be achieved without including nitrogen removal capacity in the Fairhaven sewage treatment plant, which contributes more than 10 times the nitrogen than the CSOs.

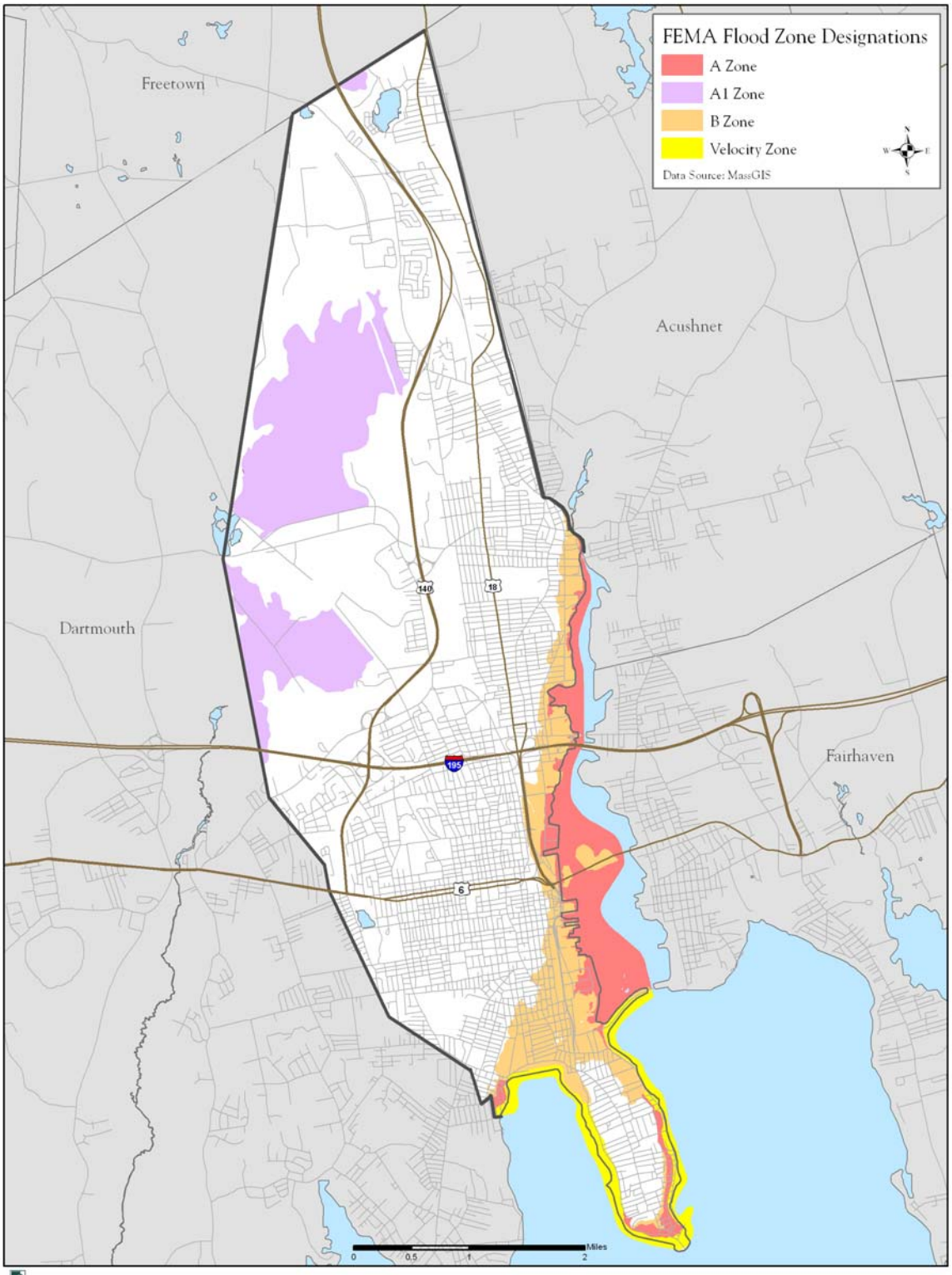
Aquifer Recharge Areas

Groundwater supply sources exist in the wetland areas located in the northwest area of the city. However, these areas are not currently used for public drinking water, as New Bedford's water supply comes from Little Quittacas, Great Quittacas, Pocksha, Assawompset and Long Ponds, located to the north of the city in the Towns of Lakeville, Rochester, Middleboro, and Freetown. These surface water sources are sufficient to meet current local and regional demands. The city, in addition to taking care of its own needs, supplies water to varying degrees to the neighboring Towns of Fairhaven, Dartmouth, Acushnet, and Freetown. In 2006, the water department distributed 3,453 million gallons of water to Greater New Bedford customers.

Flood Hazards Areas

Flood plain is a term used to describe the areas adjoining lakes, rivers, streams, oceans and bays which, during the past, have been covered, or can be expected to be covered, by flood waters. A river channel and the immediate adjacent lands form what is termed a floodway. Floodways are high velocity areas, which convey flood discharges. Another term, floodway fringe, is generally applied to the outermost area of the floodway, also subject to flooding, but having less of a role in the routing of flood discharges (Federal Emergency Management Agency).

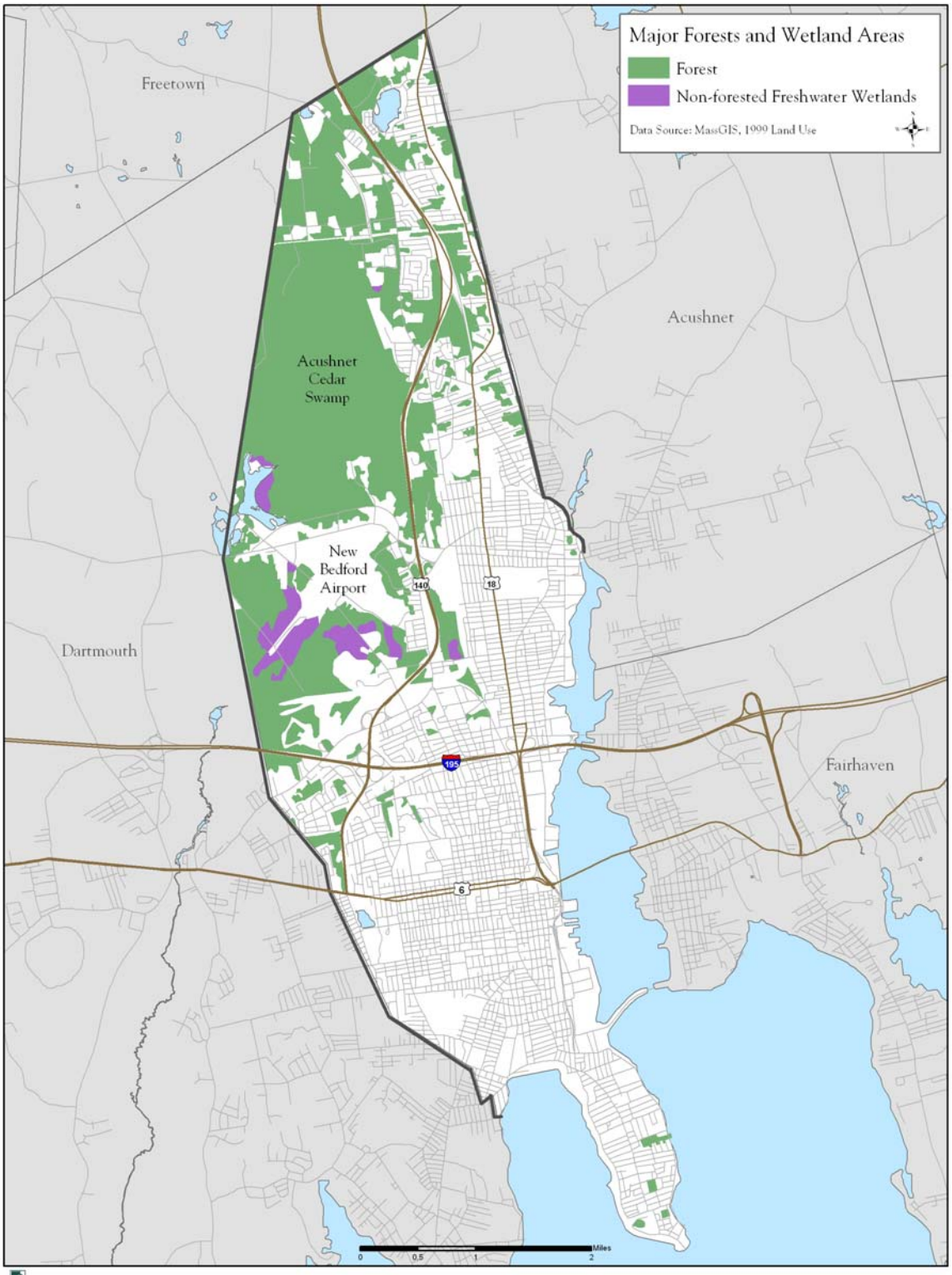
The importance of the floodplain lies in its ability to store and route stormwater. Although the entire floodplain is rarely covered, periods of intense storm of short duration and seasonal storms will induce a river or stream system into some degree of floodplain encroachment (somewhat regularly, on average, every 1-3 years)(FEMA). Portions of the city fall within the 100-year flood zone (A Zone) and between the 100-year flood from storm surges and waves by the hurricane barrier, which was constructed in 1966. However the areas of the city, which lie outside the barrier (along Rodney French Boulevard down to Clark's Point) fall within the Velocity Zone. Velocity Zone refers to those areas subject to 100-year coastal flooding with velocity (wave action). The FEMA flood zone delineations within the city are shown on the FEMA Flood Zone Designations map within this Plan.



Map prepared by: Buzzards Bay National Estuary Program, 2870 Cranberry Highway, East Wareham, MA 02538. February 2007.

Wetlands

One of Massachusetts' largest, wildest, and most impenetrable swamps, the Acushnet Cedar Swamp, lies mostly within the confines of the City of New Bedford. The Commonwealth of Massachusetts from the Acushnet Saw Mill Company acquired the Acushnet Cedar Swamp in 1971 for the preservation, enjoyment, and education of the public. In this 1,800 acre area stands an upland forest adjacent to a wetland complex of swamps, bogs, and a pond. About half of the swamp portion is dominated by Atlantic white cedar, ranging in age from 25 to 175 years old. Other species in the swamp include red maple, American holly, mountain laurel, and hemlock. A 70 acre mill pond dammed around 1787 covers very large stumps believed to be the remains of the pre-settlement forest. Adjoining the pond is a bog of about 60 acres where large expanses of leather leaf are separated by swales of sedges and grasses. Small islands of high ground within the swamp add to the diversity of the area. The swamp is located along the northwest side of the city, north of the municipal airport, and west of Route 140 at elevations ranging from 65 feet to about 170 feet.



Map prepared by: Buzzards Bay National Estuary Program, 2870 Cranberry Highway, East Wareham, MA 02538. February 2007.

D. Vegetation

While most of the city's land area has been developed, large forested wetland areas remain in the northwestern reaches of the city. These areas are composed mainly of second and third-growth hardwoods with numerous pockets of white pine and several cedar swamps.

The Acushnet Cedar Swamp provides extensive habitat for Atlantic white cedars, which according to the Massachusetts Natural Heritage and Endangered Species Program "have limited distribution in New England and are a priority natural community for protection in Massachusetts". Atlantic white cedar swamps are forested wetland communities with a dense, primarily evergreen canopy, a deciduous shrub layer, and a sparse herb layer dominated by mosses (Atlantic White Cedar Swamps, NHESP, 1998). In addition to Atlantic white cedar, red maple, American holly, mountain laurel, hemlock, high-bush blueberry, swamp azalea, and species of sphagnum moss also exist in the swamp.

On the edge of the Acushnet Cedar Swamp is an acidic shrub fen community, the Turner Pond Bog, which is also a priority community for protection in Massachusetts. The Turner Pond Bog is approximately 60 acres in size, and according to the NHESP one of less than 10 high quality acidic shrub fens in the state. An acidic shrub fen is a non-forested acidic peat land. "Acidic peat lands form on poorly drained sites in areas with cool moist summers, where precipitation exceeds evapotranspiration. The combination of cool temperatures and low amounts of dissolved oxygen and nutrients in the water limits the decomposition of organic matter by microorganisms. Consequently, dead vegetation builds up forming a layer of peat. Acidic shrub fens most often occur along pond margins, slow-moving streams, and along the outlet streams of stream headwater peat lands. They are composed primarily of low-growing, interwoven shrubs with patches of sphagnum moss growing at the shrub bases. Both evergreen and deciduous shrubs occur; typical species include leatherleaf, water-willow, sweet-gale, meadow-sweet, sweet-pepperbush, and alder (Non-forested Acidic Peat lands, NHESP, 1998).

The Massachusetts Natural Heritage and Endangered Species Program has identified the Acushnet Cedar Swamp, the Apponagansett Swamp, and the eastern portion of the Hobomock swamp, as " priority habitats of rare species". This designation refers to species protected under the Massachusetts Endangered Species Act regulations (321 CMR 10). The city should make concerted efforts to protect buffer areas around these critically important forested wetlands. Habitat fragmentation must be avoided if the species within these areas are to survive.

Several vascular plant species in New Bedford have been identified by the NHESP as endangered. They include the purple cudweed (Gamochaeta purpurea), heartleaf twayblade (Listera cordata), lesser snakeroot (Eupatorium aromaticum), and bead pinweed (Lachea pulchella var.). In addition, the following are considered threatened species: narrow-leaved spring beauty (Claytonia virginica), rigid flax (Linum medium var. texanum), adder's-tongue fern (Ophioglossum pusillum), pale green orchid (Platanthera flava var. herbiola), Canadian sanicle (Sanicula canadensis), and swamp oats (Sphenopholis pensylvanica).
Climbing fern (Lygodium palmatum) and Plymouth gentian (Sabatia kennedyana) are included in the listing of Species of Special Concern.

E. Fisheries & Wildlife

Fisheries

A huge seasonal recreational fin fishery exists along New Bedford's shores. Residents, as well as people from as far away as New York and Canada, come to fish for scup, flounder, bluefish, and striped bass. Unfortunately, due to high PCB and heavy metal levels, fin fishing; shell fishing and lobstering have been prohibited within New Bedford Harbor since 1979. However, it is important to note that fishing for home consumption may still occur, despite an aggressive trilingual campaign by EPA to educate fisherman about the closure and potential effects of eating contaminated fish or lobsters.

A list of seasonally available fish is presented in the table below. The Division of Marine Fisheries and Environmental Law Enforcement regulate some of these fish species as to size and season.

Table 4: Seasonally Available Saltwater Finfish in New Bedford

Species	Season
Tautog	Spring and Fall (common)
Mackeral	Spring (rare)
Flounder (winter)	Spring (rare)
Herring	Spring (reports of good runs started in 1999)
Striped Bass	Spring, Summer, and Fall (schoolies abundant)
Bluefish	Spring, Summer, and Fall (common)
Scup	Summer and Fall (common)
Eel	Spring, Summer, and Fall (populations low to date)
Fluke	Summer and early Fall (rare)
Bonito	Late Summer and early Fall (rare)

New Bedford is also home to several fresh water-fishing areas, including Turners Pond, Sassaquin Pond, and the Paskamansett River. The Paskamansett River begins as an outlet to Turners Pond and winds its way all the way to the Slocums River in Dartmouth. Consumption of fish from Turners Pond is prohibited due to heavy metal contamination. Sassaquin Pond is the most accessible and is heavily utilized by residents. All three water bodies support warm water fish species such as: black crappie, brown bullhead, pumpkinseed sunfish, yellow perch, white perch, red fin pickerel, chain pickerel, American eel, and shiners.

Herring Runs
Anadromous species, such as alewives (Alosa pseudoharengus) and blueback herring (Alosa aestivalis), together known as river herring, have declined dramatically in rivers around Buzzards Bay during the past couple of centuries. Annually, these fish leave the open ocean to return to the freshwater rivers they were born in to spawn. Historically, these fish were an important human food fishery. Today they are not heavily used for human consumption but are still an important food species for many larger fish, whales, and coastal birds. Currently, the primary human use of herring harvested from Buzzards Bay tributaries is lobster bait.

Most herring runs in Buzzards Bay are not supporting their historical maximum number of fish. One of the primary reasons is that obstructions to migration are stopping or inhibiting the passage of fish upstream to their spawning areas. Other possible reasons certain runs are not producing fish at their historic level are over-fishing or poor water quality. Herring migrate annually up the Acushnet River all the way to the New Bedford Reservoir in the Town of Acushnet.

In 1998, the New Bedford Harbor Trustee Council awarded $600,000 to the Massachusetts Division of Marine Fisheries (DMF) to construct fish ladders at three dams located in Acushnet that are inhibiting herring migration. The dams are located at Saw Mill Pond, Hailin Mill Pond, and the New Bedford Reservoir. After a year of designing systems for each dam, the Division of Marine Fisheries recently decided that complete removal of both mill pond dams might be the best solution. Installation of a state-of-the-art fish ladder has been constructed at the reservoir. A feasibility study will be necessary to determine if dam removal is appropriate for these sites.

To date, no fish counts have ever been conducted on the number of river herring migrating up the Acushnet River. As part of DMF's plan to improve fish passage in the river, a fish counter will be installed in the Saw Mill Pond in the Town of Acushnet.

Shellfisheries
The history of water quality in New Bedford has been marred by misunderstanding, misuse and an overall belief that things could not change. The turn of the century marked the institution of wastewater management by the development of a collection system that enabled people to control their domestic waste inside their own homes. Regrettably, the waste found its way to the river, harbor and cove via combined sewer overflow (CSO) pipes and the Clark's Cove Pumping Station. Untreated wastewater was also discharge one-half mile off Clark's Point into Buzzards Bay.

According to historic records provided by the Massachusetts Department of Public Health, the Commissioners of Inland Fisheries and Game, the Department of Environmental Quality and Engineering and the Division of Marine Fisheries (DMF), portions of Clark's Cove had been classified as prohibited or restricted to the harvest of shellfish since the early 1900's because of the discharge of raw sewerage into the cove.

Between 1900 and 1903 there were 565 cases of Typhoid Fever, which included 93 deaths, documented among the families of shell fisherman and individuals that consumed quahogs in New Bedford. The State Department of Health conducted an investigation of the water quality in the shellfish waters around the City and determined that large quantities of sewerage entered into New Bedford waters. On July 21, 1904 the MA Department of Health requested the Commissioners of Inland Fisheries and Game to prohibit the taking of shellfish from Clark's Cove and portions of the Acushnet River. This was the beginning of the

shellfish closures in New Bedford, which has led the cit y and the Town of Dartmouth to petition the State over sixty times to reopen portions of Clark's Cove to shellfishing (DMF Germano: Sanitary Survey 1992).

A primary wastewater treatment plant was built in the early 1970's and placed on-line in 1973. This facility did little to reduce the water pollution problems in New Bedford, as the CSOs were still a major contributor in the pollution of the harbor and cove. In 1982, New Bedford began to set goals for the reinstitution of an inshore shellfishery. The Shellfish Division collected water samples on a regular basis and delivered them to the Health Department for bacterial testing. Reports were sent to various applicable state agencies and throughout the 1980s and early 1990s pollution sources and problems in the wastewater collection system were located and corrected by the city. A successful sanitary survey of Clark's Cove began in 1990 and concluded with the opening of 700 acres in 1992. New Bedford's Wastewater Division continued to correct the problems exposed by water testing in the cove and the outer harbor, resulting in the opening of additional areas of shellfishing in the cove.

A new wastewater treatment plant was placed on-line in 1996. The improvement of the water quality in Buzzards Bay has resulted in approximately 575 acres of shellfishing area opening in the Bay and 300 acres opening in the Outer Harbor. The opening of shellfishing in Clark's Cove required Dartmouth and New Bedford to establish a regional shellfish management plan and a memorandum of understanding (MOU) with the DMF; The agreement and the MOU are still functioning and kept on file in the city's shellfish office. As a result in this effort, the New Bedford shellfish industry now as an approximate value of $250,000 landed value record in 1999. The landed value in 1982 was $16,000. The value of shellfish in New Bedford after the application of the 4.5% economic multiplier is one million dollars.

Between the 1940s and the 1970s, New Bedford Harbor was also contaminated with PCBs and heavy metals released from manufacturing companies located along the Acushnet River and the harbor. As a result of a settlement between the federal government, the Commonwealth of Massachusetts and the companies responsible for the contamination, a $21 million dollar resource restoration fund was established. This fund, governed by the New Bedford Harbor Trustees Council (HTC), is distributed in several grant rounds environmental restoration projects in the harbor and surrounding areas.

In it's first grant round, the HTC awarded a one-year budget of $298,000 for the restoration and management of shellfish to the Regional Shellfish Restoration Committee (RSRC). The RSRC is comprised of representatives from New Bedford, Dartmouth and Fairhaven. The committee was established at the request of the HTC due to the fact that all of the community's requests for shellfish restoration projects contained similar goals and initiatives. The RSRC was also awarded funding for shellfish restoration projects in the second round. The RSRC requested a two-year budget as suggested by the HTC.

The funding allowed the New Bedford Shellfish Division accomplished the following initiatives:

- Contaminated shellfish relay programs
- Juvenile shellfish seeding projects
- Clean shellfish relays
- Development of shellfish management plan
- Increased enforcement coverage during the funding cycle

The harvesting of aquatic resources both along the shoreline and offshore is a relatively new concept for the city of New Bedford. In the past, New Bedford residents would purchase Non-Resident Family Permits from other coastal communities, often paying five times as much as local residents. For the first time, our residents had the ability to shellfish in their own community. Although it should be noted that fin fishing and lobstering are still prohibited in certain areas, quahog harvesting is permitted. Family permit sales in New Bedford exceeded 250 in 2004.

Although New Bedford has deep ties to the sea, there has long been a perception that the water environment is less than desirable. Over the last few years this perception has slowly been changing. The restoration of Fort Taber continues to attract many people, and there is an increase in the use of the city's East and West Beaches along Clark's Cove. The residents of New Bedford are now enjoying the many years of persistence and hard work to clean up our harbor, Clark's Cove and the Acushnet River.

Wildlife

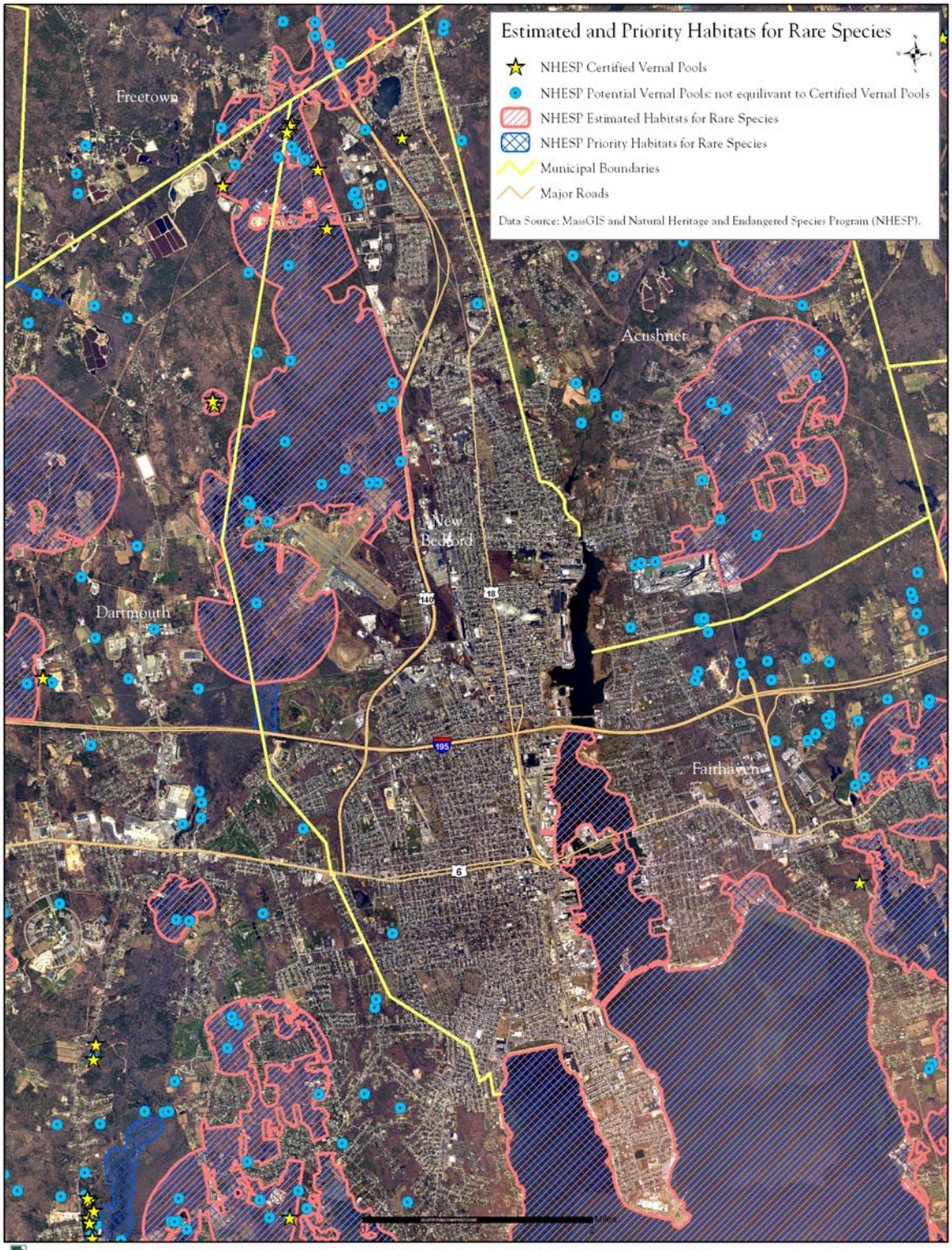
The very large, connected forest and wetland areas in northern New Bedford provide habitat for a large number of species, including a few rare species. Some of the more common species include grouse, deer, rabbits, gray squirrels, raccoons, foxes, skunk, and several species of rodents, birds, reptiles, and amphibians.

New Bedford also has numerous vernal pools, 5 of which have been certified by the Natural Heritage and Endangered Species Program, a division of the Massachusetts Division of Fisheries and Wildlife. Certified vernal pools are provided protection under several state and federal laws, such as the Massachusetts Wetlands Protection Act, Title 5, Section 401 of the Federal Clean Water Act, and the Massachusetts Forest Cutting Practices Act.

Vernal pools consist of small, shallow temporary pools that are most evident in the springtime. These pools often dry up in the summer and are therefore unable to support fish communities. However, vernal pools are critical to the survival of a variety of wildlife species, including some salamanders, which breed exclusively in these pools. These salamanders travel in mass migrations during the spring to return and breed in the vernal pool they were born in. A few organisms, such as fairy shrimp, spend their entire life cycle within a single vernal pool. They lay drought-resistant eggs, which hatch when the pool fills with water in the spring. Other wildlife species are attracted to vernal pools because of the abundant prey available. Some of these species include spotted turtles, Blanding's turtles, great blue herons, green herons, and garter snakes.

Rare and Endangered Species

The Massachusetts Natural Heritage and Endangered Species Program has identified several species considered to be Threatened in New Bedford; including the marbled salamander (Ambystoma opacum), the Northern Parula (Parula americana), the chain fern borer moth (Papaipema stenocelis) and the water-willow stem borer (Papaipema sulphurata). . There are also Species of Special Concern including the least tern (Sterna antillarum), Arctic tern (Sterna paradisaea), Eastern box turtle (Terrapene carolina), Mystic Valley amphipod (Crangonyx aberrans), attenuated bluet (Enallagma daeckii), American clam shrimp (Limnadia lenticularis), pale green pinion moth (Lithophane viridipallens).



Map prepared by: Buzzards Bay National Estuary Program, 2870 Cranberry Highway, East Wareham, MA 02538. April 2007.

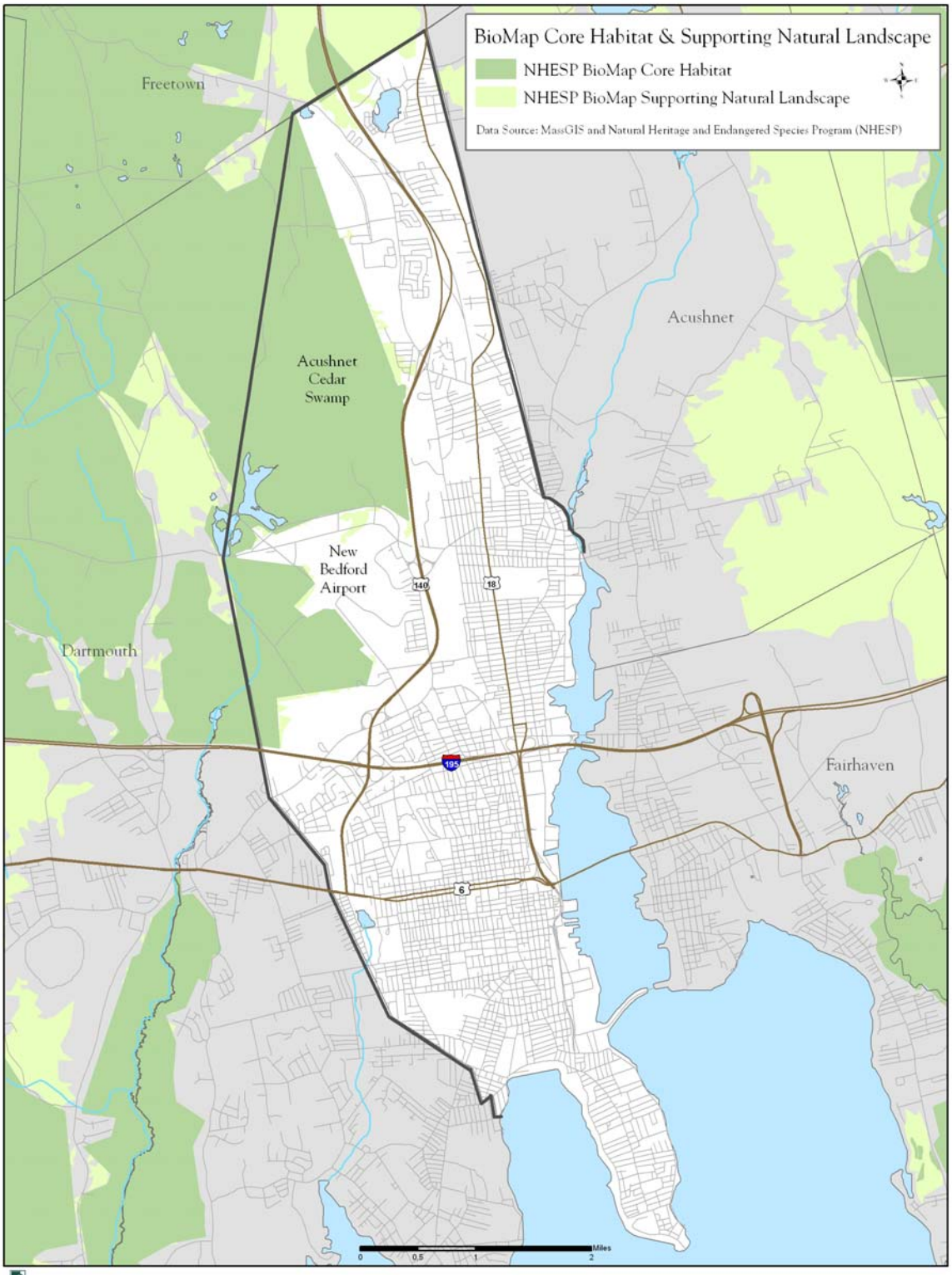
F. Scenic Resources

Scenic Landscapes

The City of New Bedford possesses one of the finest natural harbors along the New England coast. A deep-water port, the harbor is home of the state's largest fleet of commercial fishing vessels, as well as many recreational watercraft. With the completion of the hurricane dike by the city and the Army Corps of Engineers in 1966, the city possesses one of the safest, most controlled harbor systems in the country.

Clark's Point, a large peninsula in the city's south end, provides panoramic views of Buzzards Bay and the Elizabeth Islands. Clark's Point is surrounded by over 13 acres of beaches. At the eastern tip of this point exists a unique environment including several tidal pools with shoreline vegetation. Tidal pools only exist in very limited numbers on New Bedford's shore. This area would make an excellent spot for an educational area and should be considered for protection.

A notable natural feature, located in the northwestern section of the city, is a large wetland-forest area. The area contains several marshes and cedar swamps, providing and ideal habitat for waterfowl and other species of birds, animals, and plants. The Massachusetts Department of Environmental Management owns a large section of the Acushnet Cedar Swamp. The City of New Bedford also owns conservation land south of the Acushnet Cedar Swamp (known as the Apponagansett Swamp), which runs along the Paskamansett River. The Flora B. Peirce Nature Trail winds for over a mile on the city's land, allowing people the opportunity to observe and enjoy nature.



Map prepared by: Buzzards Bay National Estuary Program, 2870 Cranberry Highway, East Wareham, MA 02538. April 2007.

Cultural and Historic Areas

The City of New Bedford is rich in culture and history. On November 12, 1996, the National Park Service as the New Bedford Whaling National Historical Park designated a section of downtown New Bedford. This 13 block, 33-acre area of the city is one of the newest of the nation's 378 National Park Service areas and commemorates the history and heritage of New Bedford as the world's leading port for the whaling industry. The legislation protecting the park directs the National Park Service to "preserve for the benefit and inspiration of the people of the United States certain districts, structures, and relics associated with the history of whaling and related social and economic themes in America".

New Bedford was the world capital of the whaling industry during the decades leading up to the Civil War. The whaling merchants of New Bedford operated a complex business network of finance, shipbuilding, barrel making, insurance, ship supply, and rope and sail making. The sponsors and agents of the ships earned huge profits and for a time New Bedford was considered the "richest city in the world".

The National Historical Park and the adjacent National Register Districts embody the historical and cultural resources associated with New Bedford's role as the whaling capital of the world during the mid-19th century. The park includes a broad array of businesses, residential and institutional structures exemplifying the Federal, Greek Revival, Italianate and Victorian styles of architecture; museums; historical exhibits, and records, which convey the importance, diversity, and financial power of the whaling era.

New Bedford's many historic lighthouses have become a great draw for tourists. Because of the preservation effort underway, the city was included in the June 1998 tour of New England Lighthouses given by the United States Lighthouse Society, and in 2002, New Bedford hosted the American Lighthouse Foundation's national conference. Interest groups from six or seven countries came to the city to view the restoration work that was done on the Butlers Flat and Palmer Island Lighthouses.

The Butler's Flat Light Station was built in 1849 and is listed on the National Register of Historic Places. The light has been fully restored, and on April 30, 1998 the city of New Bedford celebrated the Centennial of the Butler Flat Light during a relighting ceremony held 100 years to the hour of its first lighting.

Also on the National Registry of Historic Places are the Palmer's Island Light, Fort Taber Light, and the Lightship New Bedford. The Palmer's Island light was built in 1849 and is the central element of the City Seal. The city's motto Lucem Diffundo (I diffuse light) alludes to this lighthouse and to New Bedford's fame as the whale oil capital of the world. A year after the Butler Flat Light Centennial celebration, the Palmers Island Lighthouse celebrated its 105th anniversary with its own relighting ceremony. Palmer Island Light now features a new solar-powered beacon.

The Fort Taber Light was built atop Fort Taber in the 1880s and replaced an existing lighthouse named the Clark's Point Light. This light, along with the Lightship New Bedford will also be restored in the near future. The Fort Taber Light has been featured in Lighthouse Digest, an international lighthouse magazine.

New Bedford is also the homeport to the official vessel of the Commonwealth of Massachusetts. The 105-year-old Ernestina ex Effie M. Morrissey, a 156 foot Essex-built Grand Banks fishing schooner was launched in 1894. Ernestina is a National Historic Landmark with a remarkable past as a fisherman, arctic explorer and Cape Verdean packet.

She now brings to life maritime history and education to students of all ages and is open to the public for tours or day sails.
Source: National Park Service and New Bedford Office of Tourism and Marketing

G. Environmental Challenges

While the City of New Bedford has a rich and prosperous history as the one time whaling capital of the world, it has also seen the abuses and pressures that have historically accompanied residential and industrial growth - loss of open space and natural areas, filling of wetlands and salt marshes, and contamination of land and water. The following section highlights some of New Bedford's primary environmental concerns.

Superfund Sites

New Bedford has two Superfund sites on the U.S. Environmental Protection Agency's (EPA) National Priorities List: New Bedford Harbor and Sullivan's Ledge. The National Priorities List (NPL) is a published list of hazardous waste sites in the country that are eligible for extensive, long-term cleanup under the Superfund program.

New Bedford Harbor

From the 1940s to the late 1970s, two electrical capacitor-manufacturing companies improperly disposed of PCB (polychlorinated biphenyl) and heavy metal laden wastes, resulting in the contamination of New Bedford Harbor from the upper Acushnet River to Buzzards Bay. Ambient air, surface water, ground water, soils, sediments, and the food chain were all contaminated, as well as the industrial plant sites.

In 1983, New Bedford Harbor was designated a Superfund site, eligible for Federal clean-up action, or remediation. In addition, Massachusetts designated the harbor as the Commonwealth's priority Superfund site. EPA and the Army Corp of Engineers completed Phase I of the remediation effort in 1995, which involved dredging the "hot spots" in the river containing over 4,000 ppm (parts per million) of PCBs.
From April 1994 to September 1995, 14,000 cubic yards of sediment from 5-acres of the most heavily contaminated sediment was dredged and disposed in an off-site permitted landfill. The remaining contaminated areas of the harbor are planned to be dredged. EPA's current remedy calls for shoreline containment of contaminated sediment in three combined disposal facilities (CDFs) and in an off-site permitted landfill. To date, dredged material has been disposed off-site and construction of CDFs has not commenced and EPA's schedule for constructing the CDFs is uncertain. However, once completed, the CDFs will be available for a beneficial shoreline reuse.

Because of the extensive nature of the contamination and the fact that it affects the harbor, this Superfund site has negatively impacted New Bedford's environment, economy, and recreational potential. The years of exposure to PCBs has destroyed or severely degraded natural resources north of the hurricane barrier. Recreation uses, other than boating, are not allowed and all fishing is prohibited. Nonetheless, the City is maximizing recreational opportunities that are compatible with water and sediment quality in the harbor. Some recent examples include the completion of the new Riverside Park, which offers users views of the harbor but restricts access to shoreline sediment, and recent efforts to introduce competitive rowing on New Bedford Harbor. Both examples help demonstrate that while significant work remains until cleanup is complete, recreational opportunities exist for residents to safely enjoy this resource.

Sullivan's Ledge
Sullivan's Ledge was an abandoned granite quarry about 12 acres in size, in the northwest corner of New Bedford. The site, owned and operated by the city, was used for decades as an industrial dump. In 1982, the EPA detected high levels of PCBs in ambient air and soil. EPA investigations in the spring of 1983 found significant levels of PCBs, vinyl chloride, and chlorinated industrial solvents in soil and ground water. An unnamed stream was located adjacent to the site. Wetlands bordered the stream, which flowed into a 13-acre wooded wetland (Middle Marsh). The stream and Middle Marsh were also impacted by contamination from Sullivan's Ledge.

To remediate the site, contaminated sediment was excavated and placed on the 12 acres that comprised the former gravel pit. The unnamed stream was lined and the site was capped. A groundwater treatment system was constructed to pump and treat contaminated groundwater. Wetlands impacted by contaminated soil excavation were restored, including the Middle Marsh. All components of the remediation, including the cap, groundwater treatment plant, and restored wetland, are actively maintained and monitored.

Combined Sewer Overflows (CSOs)
Much of the city's sewer system is a combined system, the function of which is to collect sewage and stormwater runoff and convey them to an interceptor system. Combined flow in excess of the interceptor capacity is discharged directly into the harbor and Buzzards Bay by the regulators through Combined Sewer Overflow (CSO) outlets. The city presently has 27 CSOs, a number of which can activate in wet weather, dependent upon the intensity and duration of the rainfall event.

The city has been actively addressing CSOs since 1989. The frequency and severity of overflows has declined in the past six years as the result of the Waste Water Division's efforts to improve maintenance of the collection system and compete capital projects that have increased conveyance capacity. Although current data is not available on either the total volume of CSO discharges or the frequency of overflows, one indication supporting this contention is that the city's efforts have resulted in the reopening of two large shellfish beds that have been closed for over 30 years. Shell fishing areas are particularly sensitive to the adverse impacts of CSO discharges and reopening of the beds is indicative of the fact that these impacts are being mitigated. Mitigation of CSOs is a costly and time-consuming process. It will take several years to separate the system and it is estimate that it will cost upwards of $200 million.

Fairhaven's Waste Water Treatment Facility
Treated sewage from Fairhaven's Waste Water Treatment Facility (WWTF) is discharged directly into inner New Bedford Harbor from a discharge pipe off South Street in Fairhaven. On average, the WWTF discharges 2.2 million gallons per day (mgd) of secondarily treated sewage from homes mainly located on the western side of Fairhaven. However, the facility also services an increasing number of homes in other areas of the town, as well as homes in the Town of Mattapoisett.

Wastewater from the treatment facility, as well as the CSOs discussed above, contribute a significant amount of nitrogen (as well as other contaminants) to New Bedford Harbor. Nitrogen, in excess, compromises water quality and living resources in the harbor by contributing to eutrophication. These pollution issues are further compounded by the presence of the hurricane barrier. Constructed in the 1960s, the hurricane barrier significantly reduces the amount of flushing with clean water from the outer harbor and Buzzards Bay. The lack of adequate tidal exchange has resulted in a concentration of pollutants within the inner harbor, leading to the complete eradication of eelgrass and

benthic animal communities. The inner harbor is one of the most eutrophic embayments in Buzzards Bay.

The Fairhaven WWTF has a National Pollution Discharge Elimination System Permit (NPDES) issued by the Environmental Protection Agency (EPA), which allows the facility to discharge up to 5.0 mgd of nitrogen.

Contaminated Sites

The Department of Environmental Protection (DEP) maintains a list of sites where reported releases of oil or hazardous wastes have occurred. As of March 2007, there are 466 sites in New Bedford. DEP lists these sites by categories shown in Table 5.

Sites are usually Tier Classified using a Numerical Ranking System (NRS). The NRS scores sites on a point system based on a variety of factors. These include the site's complexity, the type of contamination, and the potential for human or environmental exposure to the contamination. In addition, some sites are automatically classified as Tier 1 sites, DEP's highest priority, if they pose an imminent hazard, affect public water supplies, or miss regulatory deadlines (Tier 1D). New Bedford has two Tier 1A sites: New Bedford Harbor and Sullivan's Ledge.

Source: Department of Environmental Protection, Bureau of Waste Site Cleanup

Table 5: Department of Environmental Protection Reportable Releases in New Bedford

Category	Number of sites in New Bedford
ADREG (Adequately Regulated): A site/release where response actions are deemed adequately regulated under another DEP program or by another government agency	70
DEP Not a Disposal Site - DEP has determined that these locations did not need to be reported and are not disposal sites.	1
DEP No Further Action -Response actions were conducted and DEP determined that no further action was needed at the site.	12
Down gradient Property Status (DPS) - A site where a DPS Submittal to DEP has stated that contamination on the property is coming from an up gradient property.	6
Invalid Submittal - An RAO Statement that was submitted for the site has been determined to be invalid by DEP	1
LSP No Further Action - Response actions were conducted and a Licensed Site Professional has determined that no further action was needed for the site.	2
Pending No Further Action - A document was submitted to DEP asserting that a site assessment had determined that no further action was required. These submittals are considered pending until DEP audits them.	2
RAO (Response Action Outcome) - A site/release where an RAO Statement was submitted. An RAO Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards are eliminated.	256
Remedy Operation Status - A site where a remedial system, which relies upon Active Operation and Maintenance, is being operated for the purpose of achieving a Permanent Solution.	7

Remedy Operation Status Terminated – A site where a remedy operation status has been terminated.	1
RTN Closed - Future response actions addressing the release associated with this Release Tracking Number (RTN) will be conducted as part of the response actions planned for the site under the "primary" RTN.	25
Special Project - The site has Special Project status.	2
Statement Retracted - An RAO Statement that had been submitted for the site has been retracted.	1
TCLASS (Tier Classification) - A site/release where a Tier Classification Submittal was received, but the classification type has not been confirmed by DEP.	2
Tier 1A: A site/release receiving a total Numerical Ranking System (NRS) score equal to or greater than 550. These sites/releases require a permit and the person undertaking response actions must do so under direct DEP supervision.	2
Tier 1B: A site/release receiving a total Numerical Ranking System (NRS) score of less than 550 and equal to or greater than 450. These sites/releases also require a permit, but response actions may be performed under the supervision of a Licensed Site Professional (LSP) without prior DEP approval.	6
Tier 1C: A site/release receiving a total Numerical Ranking System (NRS) score of less than 450 and equal to or greater than 350. A site receiving a total score of less than 350, but which meets any of the Tier 1 Inclusionary Criteria specified in 310 CMR 40.0520(2)(a), is also classified as a Tier 1C. These sites/releases also require a permit, but response actions may be performed under the supervision of a Licensed Site Professional (LSP) without prior DEP approval.	1
Tier 1D - A site/release where the responsible party fails to provide a required submittal to DEP by a specified deadline.	29
Tier 2: A site/release receiving a total Numerical Ranking System (NRS) score of less than 350, unless the site meets any of the Tier 1 Inclusionary Criteria (see above). Permits are not required at Tier 2 sites/releases and response actions may be performed under the supervision of a Licensed Site Professional (LSP) without prior DEP approval. All pre-1993 transition sites that have accepted waivers are categorically Tier 2 sites.	21
UNCLASSIFIED - A release that has not reached its Tier Classification deadline (usually one year after it was reported), and where an RAO Statement, DPS Submittal, or Tier Classification Submittal has not been received by DEP.	12
Utility-Related Abatement Measure – A site where a measure is conducted in response to contamination discovered during the installation, repair, replacement or decommissioning of underground utilities such as sanitary sewerage, water, or drainage systems, steam lines and natural gas pipelines.	5
WCSPRM - A Waiver Completion Statement has been submitted to DEP.	2

Solid Waste Disposal
Solid waste from the City of New Bedford is transported to the Crapo Hill Landfill, which is located in the Town of Dartmouth and operated by the Greater New Bedford Regional Refuse Management District. The District is composed of the City of New Bedford and the Town of Dartmouth. Recyclable materials are transported to various local markets including A.W. Martin (New Bedford), Mid City Scrap (Westport), AAA Recycling (New Bedford) and BFI Recyclery (Brockton). Leaf and yard waste is transported to the Crapo Hill Landfill for composting and is reused around the landfill site. In addition, the Solid Waste Division operates a Solid Waste Transfer Station for processing the recyclables as well as a drop-off recycling center, which accepts a large variety of items on a daily basis.

Flood Hazard and Sedimentation areas; Due to incremental development over time, there are at least two places within the City that are known to flood although they may not be within a designated FEMA floodplains.

1. A flood study was completed in 9/2007 for an area of New Bedford located in the northeast portion of the City from Stratford Street northerly to Acushnet Ave. The severe flooding impacts to this neighborhood, from even small storm events has been evaluated in a Report Titled: *City of New Bedford Stratford Street and Barnum Street drainage Report (CDM, Inc 9/2007).* Past residential development within low lying areas, random piping of streams and intermittent channels and a lack of stormwater management contribute to this problem. The lack of stormwater management also contributes to the sedimentation of the remaining fragments of wetlands in that watershed.

2. The Upper Buttonwood Brook watershed floods frequently with the brook overtopping the Banks and flooding CVS parking lot (at the corner of Route 6 and Route 140) and Buttonwood Park and Court Street. The increase in impervious area in the upper watershed and lack of detention facilities contribute to this flooding. The flooding can also cause sedimentation of Buttonwood Pond if it is laden with street runoff. Recently more vigilant street sweeping may be helping to minimize this impact.

V. INVENTORY OF LANDS OF CONSERVATION & RECREATION INTEREST

The protection of open space is especially significant in urban areas, such as New Bedford. Open space is not just a priority for the sake of preservation – it is also important in the revitalization of urban areas. City parks, protected nature reserves, community gardens and greenways create a quality of life that people want in their communities, which stimulates economic growth by attracting businesses. Open space helps revitalize urban areas when it is utilized to attract residents and visitors for outdoor recreational pursuits. In older industrial cities, open space balances the hardscapes created by mill buildings, which are predominantly located along the Acushnet River. By creating greenways and riverwalks, we have the opportunity to once again open the waterfront for public use, providing flood protection and enhancing the views of the river, harbor and bay.

A. Protected Lands

Land is considered protected if it falls into one or more of the following categories:

☐ State land purchased with the use of federal funds, therefore covered by PL 88-578
☐ State land owned by a state conservation agency, therefore covered by Article 97 of the Massachusetts Constitution
☐ City land owned by or under the jurisdiction of:
- a. Conservation Commission
- b. Water Department
- c. Any city department if dedicated to open space/conservation by a permanent deed restriction.

☐ Private land:
- a. Owned by a nonprofit organization dedicated to land conservation (i.e. land trust)
- b. Protected in perpetuity by a conservation or deed restriction
- c. Protected by the Agricultural Preservation Restriction (APR) program
- d. Protected by a conservation restriction under the DEP's Wetland Restriction Program

Conservation Restrictions

Massachusetts General Laws chapter 184, sections 31-33, established Conservation restrictions as a legal method of preserving open space. A conservation restriction is an enforceable agreement between landowners and a government body by which the owners agree to keep their land in the same state as it is at the time of agreement, reserving the right to conduct farming, forestry, or other designated uses. The restriction runs with the land, binding subsequent owners, and is enforceable in perpetuity. The title to the property remains with the owner and the public gains no rights to enter the property without permission. Conservation restrictions are recorded with the deed in a public restriction tract index in the Registry of Deeds and are subject to approval by the local selectmen and the Secretary of Environmental Affairs through the Division of Conservation Services. Because the land is encumbered the full and fair market value of the property is reduced.

Farmland, wetlands, forestland, golf courses, and campgrounds, qualify for conservation restrictions under the state guidelines. By restricting their land, owners forfeit the right to develop house lots. The community benefits by preserving open space without the expenses of purchase, insurance or maintenance, or outright loss of all tax revenue. New Bedford has a Conservation Restriction on one parcel that was deeded to the City of New Bedford as open space with the Conservation Restriction held by the Fairhaven-Acushnet Land Preservation Trust. Additionally the Conservation Commission will soon be holding two Conservation Restrictions on parcels of land owned by the Greater New Bedford Industrial Foundation.

Key to Protected Parcel Inventory Codes:

Ownership

CNB	City of New Bedford
HA	Housing Authority
COM	Commonwealth of Massachusetts
PRV	Private

Manager

PK	Park Department
HA	Housing Authority
SC	School Department
DEM	Department of Environmental Management
CNB	City of New Bedford
DPW	Department of Public Works
HDC	Harbor Development Commission
CC	Conservation Commission
PRV	Private

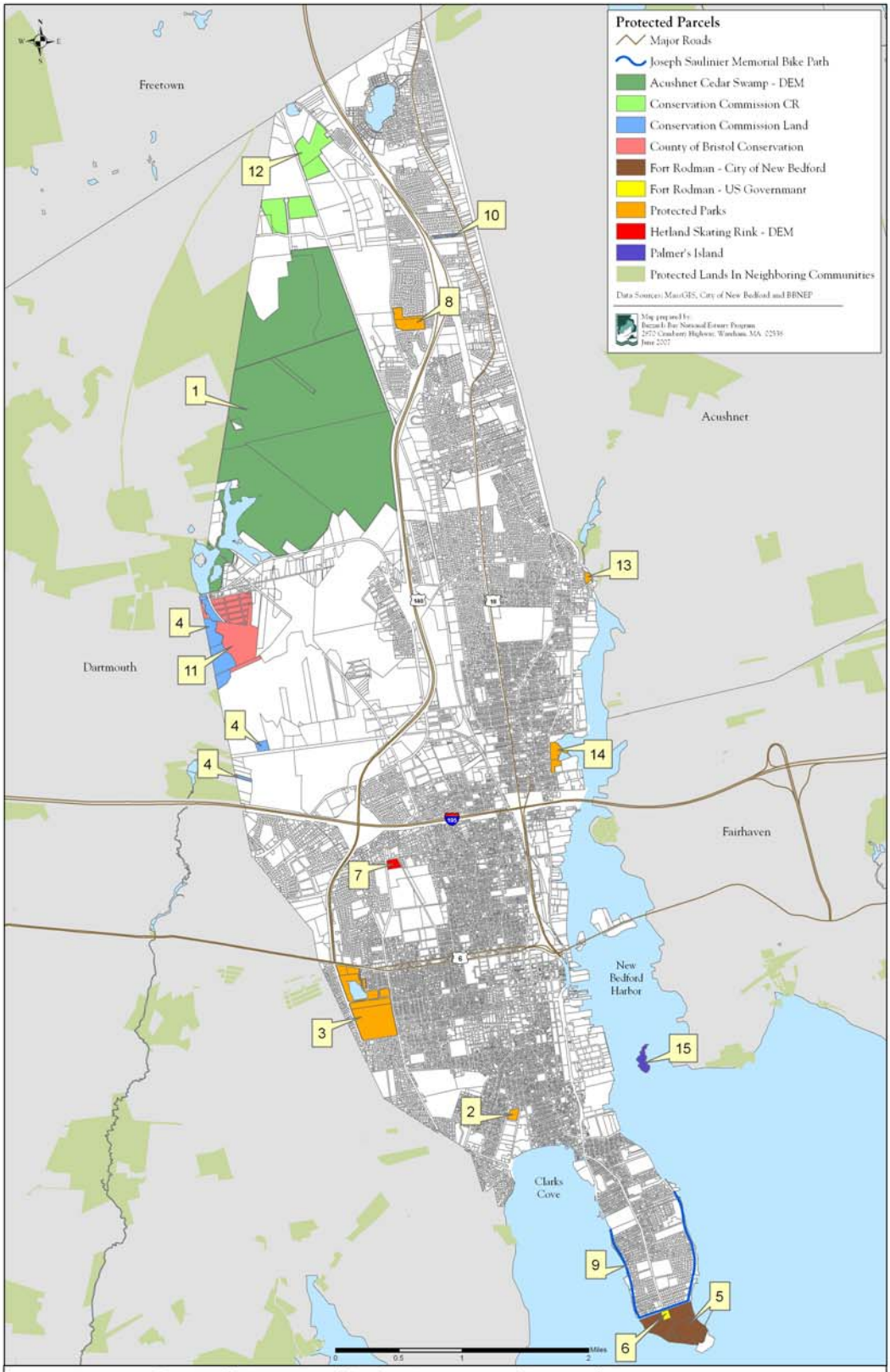
Public Access

Unofficial - Public usage at non-dedicated school times possible; Access to housing authority property by non-residents is possible but not formally promoted.

Limited - Not formally promoted, needs improvements

Zoning

RA	Residence A
RB	Residence B
RC	Residence C
B	Business
IA	Industrial A
IB	Industrial B
IC	Industrial C
WI	Waterfront Industrial



City of New Bedford - Protected Parcel Inventory

Table 6: Inventory of Protected Parcels

Map #	Facility	Plot	Lot	Acres	Owner	Manager	Condition	Public Access	Zoning	Notes
1	Acushnet Cedar Swamp	124 128 129 131	1-5, 45, 67 1-3, 5-6, 10, 11, 13, 21, 25 1, 10-12, 23, 24, 30-34, 36, 37, 40, 46-48 4, 6-8, 13, 26, 38, 39, 42-44, 50, 53-56	1,250 (+/-)	COM	DEM	Good	Limited	RB	Protected-State-Owned Conservation Land
2	Ashley Park	23	33	5.1	CNB	PK	Good	Free	RA	Protected - Federal Land and Water Conservation Funds used. Senior center, playground equipment, basketball and volleyball courts, softball field, public gardens and benches

3	Buttonwood Park	43 49 54 55	5 12, 14 49 69	97.0	CNB	PK	Excellent	Free	RA	Protected - Federal Land and Water Conservation Funds used, Urban Self-Help. City's largest park, 2 baseball fields, 1 softball field, 3 basketball courts, 10 tennis courts, play equipment, walking path, pond, greenhouse, public library, and zoo
4	Flora B. Peirce Nature Trail	124 122	21,22, 23, 53,62 1	148.0	CNB	CC	Excellent	Free	RB	Protected. Conservation land with trail system, recently updated.
5	Fort Rodman/Fort Taber	2 3 4	1,2 2,3,4 3, 129	40.0	CNB	PK, DPW	Good	Free	RA	Protected - Urban Self-Help. Miles of walking/biking/ skating paths, playground, picnic areas, beaches, bathhouse, splash pad, community center, and site museum.
6	Fort Rodman/Fort Taber	3	1	1.5	COM	PK, DPW	Excellent	Free	RA	Protected
7	Hetland Skating Rink	75	8	4.6	COM	DEM	Good	Fee	RA	Protected
8	Pine Hill Park	134	1	18.0	CNB	PK	Poor	Free	RB	Protected - Bureau of Outdoor Recreation grant money used in 1973
9	Joseph Saulinier Memorial Bike Path	N/A	N/A	N/A	CNB	PK	Excellent	Free	RA, RB	Protected - DEM funds. Located on East and West Rodney French Blvd.

10	Conservation Land	134	254-270	2.07	CNB	CNB	Excellent	None	RA	The Fairhaven-Acushnet Land Preservation Trust holds a conservation restriction on this land.
11	County of Bristol Conservation Land	122 124 124A 124B	2 26, 53 31, 33, 64-69, 75, 87, 132, 142, 154 1,8,20, 53, 58, 70, 96, 99,111, 127,128		Bristol County	CC	Excellent	Free	RB	Adjacent to Conservation Commission lands (Flora B. Peirce Nature Trail)
12	Industrial Park CRs									
13	(Former) Reliable Truss property									
14	Riverside Park									
15	Palmer's Island	32	1,2	5.6	CNB	CNB	Poor	Limited	RA	

B. Unprotected Lands
The inventory of Unprotected Parcels includes recreational areas, such as parks and greens, and other lands which are under the jurisdiction of the Park Department, School Department facilities, cemeteries (which are often used for walking), and private recreational areas.

Land is considered unprotected if it falls into one or more of the following categories:
☐ Unrestricted federal land
☐ Unrestricted state land
☐ City land:
    a. Not owned by the Conservation Commission or otherwise restricted
    b. Tax title properties
☐ MGL Chapter 61, 61A, and 61B lands
☐ Selected unrestricted privately owned open space

Chapter 61, 61A & 61B
Chapter 61 (Forestland Taxation Act) is administered by the Department of Environmental Management (DEM) for properties of contiguous forestland of ten acres or more. It is designed to give favorable tax treatment to a landowner interested in keeping forestland undeveloped and in wood production. Land, which is certified under Chapter 61, is assessed at 5% of fair market value or at $10 per acre, whichever is greater. An 8% wood products tax is paid at the time of harvest. Chapter 61 defers payment of a portion of the property taxes until timber is cut and income is realized. Landowners wishing to qualify for the program must have a 10 year DEM approved forestry management plan, which may include activities such as harvesting or timber stand improvements. The City of New Bedford has only one parcel of land enrolled in Chapter 61 program.

Chapter 61A (Farmland Assessment Act) is designed primarily for lands used for agricultural or horticultural purposes, and can cover both farmlands and woodlands of a single farmer. The property owner must have at least 5 acres of land in farm use, and must demonstrate minimum yearly gross sales of farm products, based on the number of acres requested for application. Required annual sales must be $500. for the first 5 acres, and for each acre above the first five: $5. for farmland and $.50 for woodland. There is usually an 80% reduction in assessed value under the Chapter 61A program. Presently, there are no parcels enrolled in this program in New Bedford.

Chapter 61B (Open Space/Recreation Act) is designed to preserve open space and promote recreational uses, such as golf courses and hunting clubs. Property owners must have at least 5 contiguous acres to qualify and the land must be maintained in one of the following ways: 1) the land must be kept in a natural, wild or open condition and does not have to be open to the public or, 2) it must be used for recreational purposes and must be open to the public or to the members of a non profit organization. The tax on the land is based on the commercial tax rate for that fiscal year applied to the value of the land for recreational purposes, rather than its fair market value. Parcels open to the public may be used for hiking, camping, or nature study. New Bedford has no Chapter 61B parcels.

All of the Chapter 61 statutes allow landowners to withdraw their property from classification at the end of the 10-year period. However, if removal is done before the end of the 10 year period or, if during the ten year period, the land is not maintained as it was classified, the landowner must either pay a conveyance tax or a rollback tax for that time period, whichever is higher. It also grants the town the right of first refusal on lands being sold for residential, commercial, or industrial purposes. The town must match a bona fide offer for conversion of the property from its forest, agricultural, or recreational use.

Key to Unprotected Parcel Inventory Codes:

Ownership

CNB	City of New Bedford
HA	Housing Authority
COM	Commonwealth of Massachusetts
PRV	Private

Manager

PK	Park Department
HA	Housing Authority
SC	School Department
DEM	Department of Environmental Management
CNB	City of New Bedford
DPW	Department of Public Works
HDC	Harbor Development Commission
CC	Conservation Commission
PRV	Private

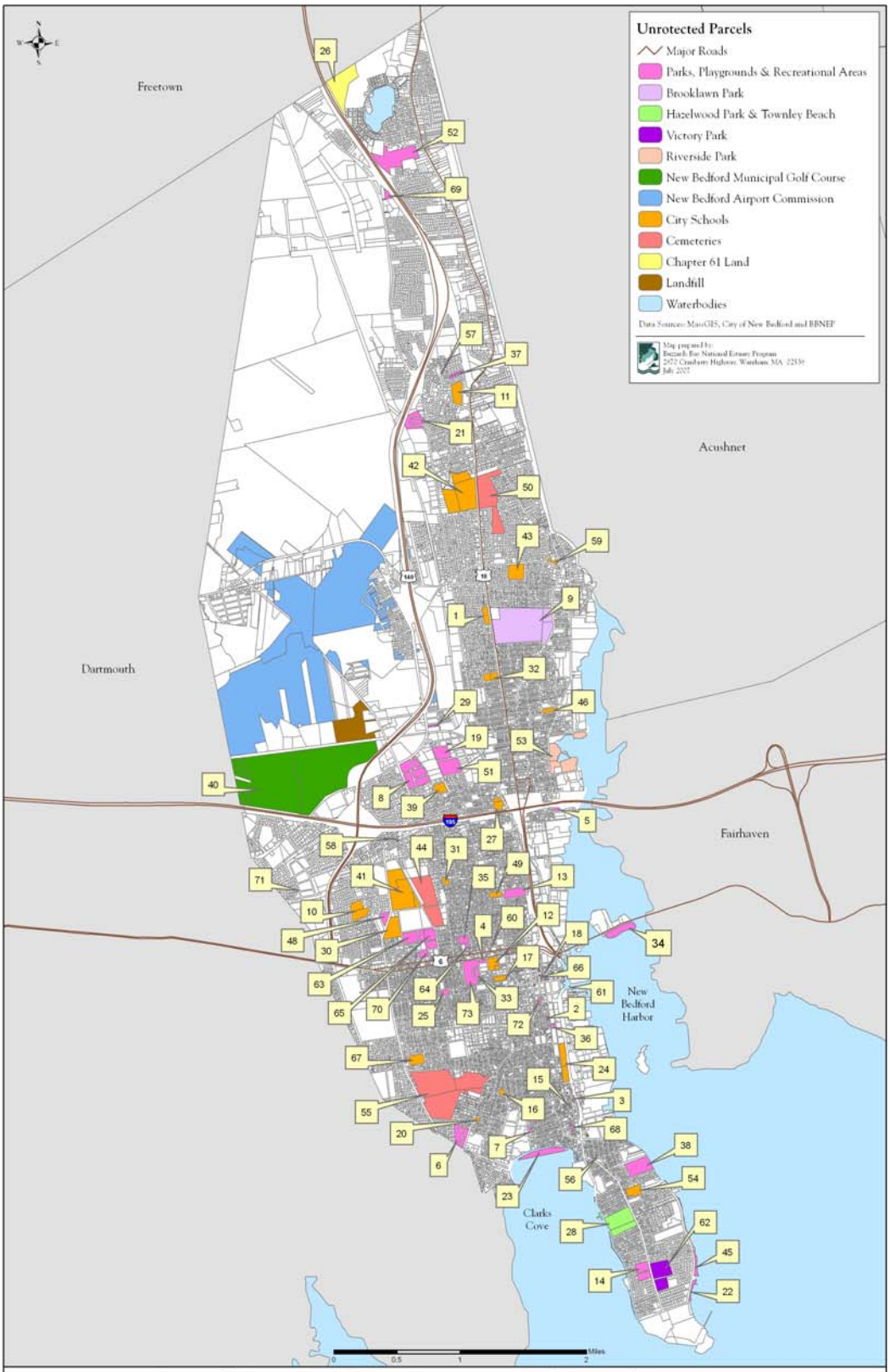
Public Access

Unofficial - Public usage at non-dedicated school times possible; Access to housing authority property by non-residents is possible but not formally promoted.

Limited - Not formally promoted, needs improvements

Zoning

RA	Residence A
RB	Residence B
RC	Residence C
B	Business
IA	Industrial A
IB	Industrial B
IC	Industrial C
WI	Waterfront Industrial



City of New Bedford - Unprotected Parcel Inventory

Table 7: Inventory of Unprotected Parcels

Map #	Facility	Plot	Lot	Acres	Owner	Manager	Condition	Public Access	Zoning	Notes
1	Ashley School	114	6	3.8	CNB	SC	Excellent	Free	RB	Playground equipment removed for safety reasons
2	Baby Kenny's Tot Lot	42	11,13, 254	0.3	CNB	PK	Good	Free	RC	Children's play equipment
3	Beauregard/Pina Park & Playground	25	12	1.0	CNB	PK	Good	Free	B	Playground equipment and benches
4	Bedford Village	51	163	1.2	PRV	PRV	Good	Unofficial	B	
5	Belleville Ave. Playground	86	13	1.0	CNB	PK	Fair	Free	IB	Basketball court
6	Blue Meadow Housing Project	22	11, 236	8.5	HA	HA	Good	Unofficial	RC	
7	Bonney Street Tot Lot	24	251	0.5	CNB	PK	Fair	Free	RC	Playground equipment
8	Brickenwood Housing Project	96	1,2,3,28,36	20.7	CNB	HA	Good	Unofficial	RC	1 basketball court
9	Brooklawn Park	112 115 116	1 1 4	82.0	CNB	PK	Good	Free	RA	Second largest park, senior center, Recreation and Special Needs Program, tennis and basketball courts, street hockey, baseball/softball fields, soccer field, duck pond
10	Carter Brooks School	62 68	177 20	10.0	CNB	SC	Good	Unofficial	RB	
11	Campbell School	132	246	8.4	CNB	SC	Good	Unofficial	RB	
12	Carney Academy School	52	1, 118	4.8	CNB	SC	Good	Unofficial	B	

13	Clasky-Common Park	72	116	7.0	CNB	PK	Fair	Free	RA	Play equipment
14	Clegg Field/Lot 13	7	6,7	8.0	CNB	PK	Good	Free	RA	3 baseball fields, club house, practice football field
15	Roberto Clemente Park	25	44,45, 47	0.6	CNB	PK	Fair	Free	B	2 basketball courts, volleyball court, picnic tables.
16	Congdon School	28	24	1.3	CNB	SC	Good	Unofficial	RC	
17	County Street School	52	237	2.5	CNB	SC	Good	Unofficial	RA	
18	Custom House Square	53	139	0.2	CNB	CNB	Excellent	Free	IA	
19	Dias Field	97	2	9.3	CNB	PK	Good	League Play	RB	3 little league fields, snack bar, basketball court, play equipment, open play areas.
20	Dunbar School	23	160	4.3	CNB	SC	Good	Unofficial	B	
21	Duncan Dottin Place	130H	10,38, 57	9.5	HA	HA	Good	Unofficial	B	Daycare center with play area and tot lot.
22	East Beach	4	2,6	13.6	CNB	PK	Fair	Free	RA	Sandy beach, snack bar, play equipment
23	Francis Playground/Field	19 20	N/A	1.8	CNB	PK	Good	Free	RA	
24	Alfred Gomes School	31 37	20 48	9.0	CNB	SC	Good	Unofficial	B	
25	Harrington Playground (Hathaway School)	51	266	1.5	CNB	PK	Good	Unofficial	RB	Playground equipment, basketball courts, park benches.

26	Hawes' Chapter 61 Land	137	62	29.7	PRV	PRV	Excellent	None	RA	10% upland reclaimed gravel pit, 90% wetland forest. Atlantic white cedar present.
27	Hayden-McFadden School	84 92	1 22	4.1	CNB	SC	Good	Unofficial	RC	
28	Hazelwood Park/Townley Beach	9 11	326 286 287 30 56	23.1	CNB	PC	Fair	Free	RA	Picnic areas, basketball and tennis courts, lawn bowling green, senior center, open play areas, beach, bathhouse, bike path connection.
29	Edward James Playground	102	127, 155-160	1.0	CNB	PK	Good	Free	IA	Basketball court, park benches, playground equipment
30	Keith Middle High School	63	85	11.2	CNB	SC	Good	Unofficial	RB	
31	Kempton School	70	6	1.6	CNB	SC	Good	Unofficial	RB	
32	Lincoln School	107 108	116 1	4.5	CNB	SC	Good	Unofficial	RB	
33	Magnett Park	51	187,193 442	1.5	CNB	PK	Good	Free	RB	Picnic tables, play equipment, basketball court.
34	Marine Park/ Prince Henry the Navigator Park	60	2	9.7	CNB	PK, HDC	Good	Free	RB	220 slip marine, playground
35	McCoy/Bernard Gym	57	26	2.8	CNB	PK	Fair	Free	RA	

36	Monte Playground	42	103	0.7	CNB	PK	Excellent	Free	RC	Play equipment, 3 basketball courts, picnic area
37	Morton Ave. Soccer Field	132D	126-158	12.1	CNB	PK	Good	Free	RA	
39	Mt. Pleasant School	89	22	4.5	CNB	SC	Good	Unofficial	RB	
40	Municipal Golf Course	121	1-3, 5-7, 37, 45,86	275.0	CNB	PK	Poor	Fee	RB	18-hole public course
41	New Bedford High School	69 70 75	345 1 12	34.6	CNB	SC	Good	Unofficial	RC	
42	Greater NB Regional Voc-Tech High School	130C 130E 130F	677 1 14	49.0	CNB	SC	Good	Unofficial	RC	
43	Normandin Jr. HS	118	71	9.7	CNB	SC	Good	Unofficial	RB	
44	Oak Grove Cemetery	64 70	3 2	39.0	CNB	CEM	Good	N/A	RA	
45	Dr. John O'Toole Memorial Playground	6	2	.3	CNB	PK	Fair	Free	RA	
46	Ottiwell School	104	6	2.4	CNB	SC	Good	Unofficial	RC	
48	Parkdale Housing Project	63	89	6.5	HA	HA	Good	Unofficial	RC	Basketball court and swing set
49	Parker Street School	71	197	2.5	CNB	SC	Good	Unofficial	RA	
50	Pine Grove Cemetery	127D 130E	175 2	34.0	CNB	CEM	Good	Free	RA	
51	Presidential Heights Housing Project	97	7 1	11, 7	HA	HA	Good	Unofficial	RC	Full playground and basketball court
52	Pulaski Park	136A	379	14.0	CNB	PK	Fair	Free	RA	Play equipment, basketball court

53	Riverside Park	93 99 100	120,22 0 81 85	22.3	CNB	PK	Good	Free	IB	Street hockey rink, 1 basketball courts, play equipment, swings, junior size soccer field, picnic tables.
54	Roosevelt Junior HS	12	1	5.5	CNB	SC	Good	Unofficial	RB	
55	Rural Cemetery	27 28 34 35	3 42 41 183	91.3	CNB	CEM	Good	Free	RA	
56	Ruth Street Neighborhood Common	15	77	0.2	CNB	PK	Excellent	Free	RC	
57	Satellite Village Housing Development	132C	67	20.0	HA	HA	Good	Unofficial	RA	Basketball court
58	Shawmut Village Housing Development	82	209 210 211	21.4	HA	HA	Good	Unofficial	RB	Basketball court
59	Swift School	127	3,4	1.4	CNB	SC	Good	Unofficial	B	
60	Mother Teresa	58	455	0.1	CNB	PK	Excellent	Free	RB	Large play system and park benches
61	Rasmus Tonnesson Park	47	225	0.1	CNB	DPW	Fair	Free	B	
62	Victory Park	6	1,3	17.0	CNB	PK	Fair	Free	RA	Soccer field, ice skating pond, warming house.
63	Walsh Athletic Field	63	48	24.9	CNB	SC	Excellent	Unofficial	RA	
64	West End Playground	57	81	0.7	CNB	PK	Good	Free	RA	basketball court, swings, slides, park benches.

65	Westlawn Housing Project	57 63 64	1 63 101	10.6	HA	HA	Good	Unofficial	RC	Basketball court
66	Wing's Court	53	36,123, 129,130	0.4	CNB	PK	Good	Free	B	
67	Winslow School	39	314	5.6	CNB	SC	Good	Unofficial	RA	
68	Dennison Memorial	20	90,92, 168	4.2	PRV	PRV	Good	Fee	RC	
69	Lord Phillip's Apartments	136	364	15.6	PRV	PRV	Good	None	B	
70	New Bedford Boy's and Girl's Club	56 57	71 6,356	4.4	PRV	PRV	Good	Fee	RB	
71	Rockdale West	73	97,122	2.1	PRV	PRV	Good	Unofficial	RB	
72	Salvation Army Play Area	46	105	0.7	PRV	PRV	Poor	Free	RC	
73	United Front Homes	51	72	11.2	PRV	PRV	Fair	Unofficial	B	

VI. COMMUNITY VISION

A. Description of Process

Mayor Scott W. Lang appointed the New Bedford Open Space & Recreation Committee with a charge to revise and update the 2001 Open Space & Recreation Plan. The members of the Committee reviewed the status of the goals and objectives and the informational material from the previous plan to determine which portions required updating. The Committee gathered information and feedback from city departments, boards and commissions, and the Southeast Regional Planning Economic Development district. The Planning Department reviewed Open Space and Recreation Plans from other towns. The Committee also held several meetings to discuss the goals and objectives from the 2001 plan, their status and which goals should continue to be strived for and which should be removed or revised.

B. Statement of Open Space & Recreation Goals

This OSRP is a continuation of the goals and objectives set forth by the prior plan. The Committee members, weighing strongly the citizen input received through public forums, have identified the need to plan and secure funding for the maintenance of our parks and playgrounds, the preservation of our open space and the protection of our water resources. These goals will continue to be the predominant aspect of our plan.

The Committee realizes the need for the city to become more preservation minded and therefore sets out stronger objectives in the ’06 plan to attain watershed protection and land conservation by modifying zoning to increase lot sizes, while decreasing the amount of impervious surfaces and runoff allowed on each lot. At the same time, it is evident that funding must be secured yearly to maintain our parks and playgrounds.

The Committee is also dedicated to educating the public and city officials on the importance of our green space and is adamant that New Bedford to maintain its status as one of the “Top Ten Green Cities” in the United States and as a “Tree City USA”.

The Committee is mindful that enhancing our maritime and textile heritage and nurturing and maintaining a strong arts community is vital to the sustainability of our city. This revision of the OSRP sets out to firmly to ensure that the city of New Bedford’s maritime, textile and artistic heritage will not be lost for future generations to enjoy.

Lastly, the Committee recognizes that interdepartmental communication and organization is vital to the success of the OSRP and the sustainability of our open spaces.

VII. ANALYSIS OF NEEDS

A. Summary of Resource Protection Needs

New Bedford's waterfront was developed many years ago to initially support the whaling industry, which was later replaced by the industrial waterfront we have today. The Acushnet River is still a vital natural resource although contaminated by PCB's which limits public contact, the river, including the harbor is considered "essential fish habitat" for 20 species of fish. Essential Fish Habitat is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth maturity" under the Magnuson-Stevens Fishery & Conservation Act (The sustainable fisheries act). The Acushnet River also supports four diadromaus fish species (alewife, American shad, blueback herring and rainbow smelt). The continued clean up of the PCB's in the Acushnet River by the EPA will improve the habitat in the River. Future needs involve the restoration of degraded landscapes along the waterfront so that they not only continue to support industry and residential development but also to develop a greenway along the immediate waterfront for public access.

Clark's Cove is a recovering resource, which now supports commercial and family shellfishing, sailing, and swimming. The City's Conservation Commission, Shellfish Constable, and Harbor Development Commission are working together with the residents to ensure that this water body continues to support recreational opportunities while also protecting and restoring the habitat. The elimination of the CSO's discharging into the Cove by the City of New Bedford went far in eliminating the pollution sources. Future protection needs for this resource could involve the development of a comprehensive management plan for the cove in both New Bedford & Dartmouth.

The northern portion of New Bedford supports the Acushnet Cedar Swamp State Reservation which is linked to County & Local conservation open space parcels which combine to make a valuable and somewhat little known natural resource for New Bedford. These open space parcels are of extraordinary value for biodiversity as indicated by the MA Natural Heritage & Endangered Species program. Future needs involve acquiring private undeveloped property abutting the existing open space, to expand the natural area. A mechanism needs to be developed for the City to acquire abutting open space parcels since two landowners have approached the City with a desire to donate their land, of which both parcels directly abut existing protected open space.

Sassaquin Pond in the far north end has deteriorated in water quality over the past few years. The City of New Bedford Health Dept. closed the area for swimming in 2004 due to high bacterial pollution following rain events. A comprehensive plan is needed for this densely developed residential area, which could involve the development of a watershed overlay district, the implementation of storm water Best Management Devices and a restrictions on fertilizers.

The Buttonwood Brook/Pond Watershed is listed by the State as an impaired resource due to bacterial contamination. The City of New Bedford has begun the formation of a watershed alliance bringing the many stakeholders together in New Bedford and Dartmouth to strategically plan a restoration of the watershed, which empties into Appanagansett Bay in Dartmouth. The Coalition for Buzzards Bay and the Conservation Commission's for both communities are working together to tackle this important pollution problem. Buttonwood Pond & Brook within the Buttonwood Park receive stormwater runoff from major roadways (Routes 6 & 140) and large nutrient & bacterial inputs from the waterfowl fed by visitors to the park.

The loss of resources in the harbor combined with the fact that the southern part of the city's land area has been consumed by residential and commercial development, leaves only the northern, wetland section remaining as open space. While a significant portion of this northern section is permanently protected by the Department of Environmental Management (Acushnet Cedar Swamp), the City of New Bedford Conservation Commission and the County of Bristol Conservation District, much of the remaining open space is fragmented, of little environmental significance, or is threatened by development impacts.

B. Summary of Community Needs

The purpose of this section is to evaluate how well New Bedford is meeting the recreational needs of its citizens as well as the needs of the region; and how it will continue to meet these needs in the future.

The 2000 population data used in this assessment is 93,768. According to the Southeastern Regional Planning and Economic Development District (SRPEDD)'s projections, New Bedford's population in 2020 will be 97,228 and for the purpose of estimating needs for the next thirteen years, this figure will be used in this evaluation.

The National Recreation and Park Association established a set of standards for assessing how communities compare in providing recreational opportunities to their citizens (See Table 8). According to these standards, New Bedford's largest deficiencies are in court games, swimming areas, family play areas, and hiking trails.

Historically, many of the older city parks were primarily utilized as passive recreation areas, but as Master Plans of these parks are re-examined further development of active recreation areas should be included. Also, as the City of New Bedford acquires vacant parcels of land it is systematically looking to place court games and family play areas at these sites.

Hiking trails are being replenished by the addition of walking paths around and through major parks such as Fort Taber, Brooklawn Park, Buttonwood Park and Clasky Common Park. Additionally, the Buzzards Bay Greenway Trail will add a highly desired hiking system.

A Braille Trail at Fort Taber is included in the Open Space Plan. The Braille Trail will serve visually impaired visitors. By utilizing the existing lookout points of interest on the existing trail, we will add signage in Braille which will include an outline of the trail with a dot located where they are standing with a description of what they are looking at, and if for example, they are viewing the lighthouse, then there will also be an outline in Braille of the lighthouse. Plans for a sensory garden are also underway for Fort Taber.

The Braille Trail will provide the visually impaired with the experience that a seeing person enjoys. There is a point on the trail where the wind shifts direction, where you can smell the ocean and hear the seagulls; at this point there will be a sign indicating the wind shift and informing the person to sit on the bench, and take in the sounds and scents of the ocean and feel the wind on their skin.

The city also has amenities that are available to those with disabilities, including skateboarding, swimming, and basketball. However, at this time the individual person is responsible for providing the adaptive equipment, personal care attendant, etc. needed for them to compete in a given activity.

Table 8: City of New Bedford Recreation Facilities, Needs and Supply

FACILITY	NPS STANDARD	PUBLIC SUPPLY	PRIVATE SUPPLY	DEMAND 2000 (pop. 93,768)	DEMAND 2020 (est. pop. 97,228)
Trails	(miles)	(miles)	(miles)	(miles)	(miles)
Nature/Hiking	1 per 2,500	8	Unknown	40	43
Equestrian	1 per 6,250	0	Unknown	16	17
Bicycle	1 per 2,000	4.5	Unknown	50	54
Family Play	(areas)	(areas)	(areas)	(areas)	(areas)
Playgrounds, Tot Lots	1 per 1,000	53	0	100	108
Skateboarding	No standards available	1	0	N/A	N/A
Rollerblading	No standards available	1	0	N/A	N/A
Picnic Areas	1 table per 300	275	Unknown	333	362
Court Games	(courts)	(courts)	(courts)	(courts)	(courts)
Tennis	1 per 1,500	22	Unknown	67	72
Basketball	1 per 1,000	37	Unknown	100	108
Volleyball	1 per 3,000	8	Unknown	33	36
Diamond Sports	(fields)	(fields)	(fields)	(fields)	(fields)
Baseball, Softball	1 per 3,000	27	Unknown	33	36
Ice Arena	1 per 10,000	1	0	10	11
Field Sports	(fields)	(fields)	(fields)	(fields)	(fields)
Soccer	1 per 10,000	10	Unknown	10	11
Football	1 per 20,000	8	Unknown	5	5
Golf Course	(holes)	(holes)	(holes)	(holes)	(holes)
NPS Standard	18 per 12,500	18	0	8	9
Swimming	(facility)	(facility)	(facility)	(facility)	(facility)
Pools	1 per 20,000	1	1	5	5
Beaches	50 sq. ft. per person	26 acres	0	115 acres	125 acres

Regional Recreation and Open Space Needs
In terms of regional needs, the Massachusetts Statewide Comprehensive Outdoor Recreation Plan (SCORP), which was written in 1988 and updated in 1993, looked at open space and recreation needs all across Massachusetts and determined that the five major policies of most importance to the Southeastern Region, were:

1. Development and expansion of recreation facilities,
2. Maintenance of recreation facilities,
3. Acquisition and protection of water supply areas,
4. Acquisition and protection of recreation areas, and
5. Acquisition and protection of conservation areas.

The SCORP identified the following specific needs for the southeastern Massachusetts region:

1. Developing and expanding water-based recreation facilities,
2. Acquisition and protection of wildlife habitats and scenic areas,
3. Development and expansion of handicapped access, and
4. Development of trail corridors.

New Bedford is a community whose history and livelihood are based on the water that surrounds it. In a city with such an extensive waterfront it would seem that water-based recreational facilities would abound. However, that is not the case. Contamination of the harbor with heavy metals and PCBs has made the harbor off limits to all recreational activities except boating. While Pope's Island Marina provides docking and other services for boat owners and the Whaling City Rowing Club allows people the unique experience of rowing in authentic reproduction whaleboats, it will be decades before the harbor can be used to its full recreational potential.

The City of New Bedford and the Town of Fairhaven recently completed a Master Plan for New Bedford Harbor. The goal of the Master Plan is to assist in advancing commercial recreation and tourism in the harbor in a manner that is compatible with a working marine port. This plan will address in detail many of the concerns expresses by citizens regarding waterfront access and open space issues. Outside of the inner harbor environment, however, residents and visitors can enjoy the city's many beaches, fishing areas, walking and biking paths, beautiful sunrises and sunsets, sailing, and shore access.

The City of New Bedford currently has only two major protected land areas that provide habitat for wildlife and visual relief and recreation for people, the Acushnet Cedar Swamp and the Flora B. Pierce Nature Trail. These two areas are located in close proximity to each other and are in the northern section of the city. However, due to the building of roads and other transportation related facilities, there is no direct connection between these protected lands and other parts of the city.

Additionally, New Bedford is home to an extensive trail network in the form of city sidewalks. While sidewalks are surely not nature tails, they do provide places for walking and exercise. With the city's wealth of cultural and historic sites creation of a historic trail system would be very appropriate.

C. Management Needs, Potential Change of Use

Proper management and maintenance of the city's outdoor sporting facilities has, at times, conflicted with the desires of the public. All too often, non-school funded recreational leagues will unintentionally damage ball fields when they are used at inappropriate times, such as during or after rainy weather.

Under Goal 1, Objective 2 (Five-Year Action Plan) which states, "Increase the number and availability, and improve the conditions of, sporting facilities for city residents", the City of New Bedford will be undertaking a management plan which will guide the use, maintenance and future development of outdoor sports areas throughout the city. The City of New Bedford Parks Department and School Department will work jointly to ensure the management and use practices (no play after foul weather, overuse on turf, etc.) of public play fields to best insure future accessibility.

VIII. GOALS AND OBJECTIVES

The Open Space and Recreation Committee worked to ensure that this plan encompasses both recreational and environmental considerations. The Goal and Objectives of this 2008 Plan were devised through Committee deliberations and public meetings and are laid out in Section IX. Five-Year Action.

IX. FIVE-YEAR ACTION PLAN

Goal 1: Expand Outdoor Recreational and Open Space Opportunities for all New Bedford Residents, Regardless of Age or Ability			
Objective 1: Construct city-wide multi-use trail system			
Actions	Responsible Party	Year	Funding Source(s)
1-1.a. Support design and construction of a multi-use, handicapped accessible, path that would connect to existing paths in neighboring communities and to the waterfront.	Planning Office Office of Housing & Community Development (OHCD) Harbor Development Commission (HDC) New Bedford Economic Development Council (NBEDC) Southeastern Regional Planning & Economic Development District (SRPEDD)	1-5	CDBG (eligible areas); HDC funds, grants; TEA-21, State Bond Bill, Seaport Bond Bill; planning assistance from MassDevelopment; EOT Capital Bond Bill; Public Access Board
1-1.b. Fund construction of user-friendly walkways, handicap access to buildings and new play areas that could be utilized by a wider range of physical abilities.	Dept. of Public Facilities (DFF) Dept. of Community Services (Comm. Services) Resource Development Office (Resource Dev.) HDC OHCD	1-2	DCR Walkway grants; CDBG (eligible areas); HDC funds, grants
1-1.c. Involve representatives of disabled and elderly community in planning for park improvements.	Planning Office OHCD Comm. Services	1-3	N/A
1-1.d. Include compliance with Americans with Disabilities Act requirements as part of all park and recreation improvements in New Bedford.	Comm. Services	1-5	N/A
1-1.e. Develop comprehensive map showing citywide trails and associated activities.	Conservation Commission (ConCom) MIS	3-5	
1-1.f. Develop trail systems in northern-forested areas of the city, such as the Flora B. Pierce property, upper Acushnet River, Acushnet Cedar Swamp access.	ConCom Parks Dept. Coalition for Buzzards Bay	2	Boy Scouts; Volunteers
1-1.g. Develop outdoor recreational programs with the school system using existing and future trail systems. (Example: Pulaski Trail)	ConCom School Dept. Recreation Dept.	2-5	
1-1.h. Develop a Braille trail at Fort Taber.	Comm. Services	1	Urban River Visions program; Public Access Board

1-1.i. Conduct a feasibility study for the development of a boardwalk along the hurricane barrier.	Mayor's Office ConCom Army Corps of Engineers HDC DPI	2-4	Urban Self-Help Grant; Urban River Visions program; Seaport Bond Council; EOT Capital Bond Bill; Public Access Board
1-1.j. Develop bicycling master plan.	Planning Office OHCD SRPEDD	2	N/A
1-1.k. Enhance and develop the former Reliable Truss site into a neighborhood park.	Planning Office OHCD Environmental Stewardship (ES) HDC	3	CDBG; New Bedford Harbor Trustee Council; Urban River Visions program; Public Access Board
Objective 2: Enhance and improve the conditions of recreational and sporting facilities for city residents.			
Actions	Responsible Party	Year	Funding Source(s)
1-2.a. Conduct and implement a needs analysis for each major park and any city facilities that sport/playfield specific.	Planning Office OHCD	1-2	N/A
1-2.b. Develop and/or revise master plans for all major parks and the waterfront, including facilities improvements, maintenance, staffing, management and summer programs.	Planning Office HDC SRPEDD DPF	3	SRPEDD; Seaport Bond Council; DMF
1-2.c. Develop and implement a watershed management plan for the Sassaquin Pond area.	ConCom DPI	3	
1-2.d. Create operation & maintenance plans and develop and implement use guidelines for all existing playfields.	DPF	1-5	
1-2.e. Implement restroom facilities at sports fields.	DPF	2-3	
1-2.f. Investigate the need for additional recreational and sporting activities, such as soccer fields, skate parks, dog park, walking trails, recreational boating.	Planning Office OHCD HDC	2-3	DMF
1-2.g. Investigate the feasibility of creating a permanent fairground site to protect the city's parks from damage resulting from annual festivals.	Planning Office	1-2	N/A

Objective 3: Improve and enhance the public's access to the waterfront			
Actions	Responsible Party	Year	Funding Source(s)
1-3.a. Link Recreation and Open Space Master Plan to Harbor Master Plan	Planning Office HDC Recreation Dept.	1	N/A
1-3.b. Make waterfront more accessible and attractive to recreational users.	Planning Office HDC NBEDC	1-5	HDC funds, grants; TEA-21 State Bond Bill; Seaport Bond Bill; planning assistance from MassDevelopment; PWED; NPS funding for trailblazer project; Urban River Visions program; EOT Capital Bond Bill; Public Access Board
Goal 2: Protect Natural Resources and Create New Greenways Through Urban New Bedford			
Objective 1: Develop a greenways implementation strategy			
Actions	Responsible Party	Year	Funding Source(s)
2-1.a. Work with the Coalition for Buzzards Bay to develop a plan for implementing a regional greenway through New Bedford.	Planning Office ConCom Coalition for Buzzards Bay HDC	1-5	Urban River Visions program; EPA; Public Access Board
2-1.b. Integrate and emphasize development of greenways into proposed harbor planning and waterfront economic development studies to develop waterfront walkways.	Planning Office HDC NBEDC	1-5	TEA-21, State Bond Bill, Seaport Bond Bill; planning assistance from MassDevelopment; PWED; Urban River Visions program; EOT Capital Bond Bill; EPA; Public Access Board
2-1.c. Establish a regional cooperation with neighboring communities on conservation issues.	ConCom ES	1-2	N/A

Objective 2: Restore threatened and degraded natural resources in New Bedford			
Actions	Responsible Party	Year	Funding Source(s)
2-2.a. Support efforts to restore shellfish resources in New Bedford for recreational harvest and investigate potential pollution sources identified by Massachusetts Division of Marine Fisheries in shellfish sanitary surveys. See Attachment "C".	Shellfish Warden DPI HDC Coalition of Buzzards Bay	1	Harbor Trust; EPA
2-2.b. Support efforts to obtain funding to remediate Combined Sewer Overflows (CSOs) impairing water quality.	DPI Coalition of Buzzards Bay HDC	1-5	Seaport Bond Council; EPA; HDC funds; DPI funds
2-2.c. Investigate opportunities for restoration of degraded wetland resources.	ConCom	1-5	EPA wetland dev. Program grants (CFDA 66.641) BBNEP Grants
2-2.d. Improve ability of the Conservation Commission to protect wetlands (expand training for members, increase staff, etc.).	ConCom	1-2	Con Com application fees (for new staff only)
2-2.e. Develop citywide wetland resource map.	ConCom MIS	1	EO-EEA Land Mapping assistance grants for Con Com & non-profits
2-2.f. Cooperate with the Massachusetts Department of Conservation and Recreation to protect the Acushnet Cedar Swamp.	ConCom NHESP	1-5	N/A
2-2.g. Remediate and restore Buttonwood Park Pond.	ConCom DPI	1-3	EPA 319 NPS Grants, EPA Wetland Program Dev. Grants
Objective 3: Support preservation of private open space in New Bedford.			
Actions	Responsible Party	Year	Funding Source(s)
2-3.a. Encourage the redevelopment of brownfield sites, as well as, the continued use of existing historic mill buildings.	Planning Office NBEDC ES	1-5	MassDevelopment planning assistance; Garfield Foundation planning assistance; NBEDC budget
2-3.b. Support the efforts of area land trusts to acquire and protect critical open space parcels.	ConCom	1-5	N/A

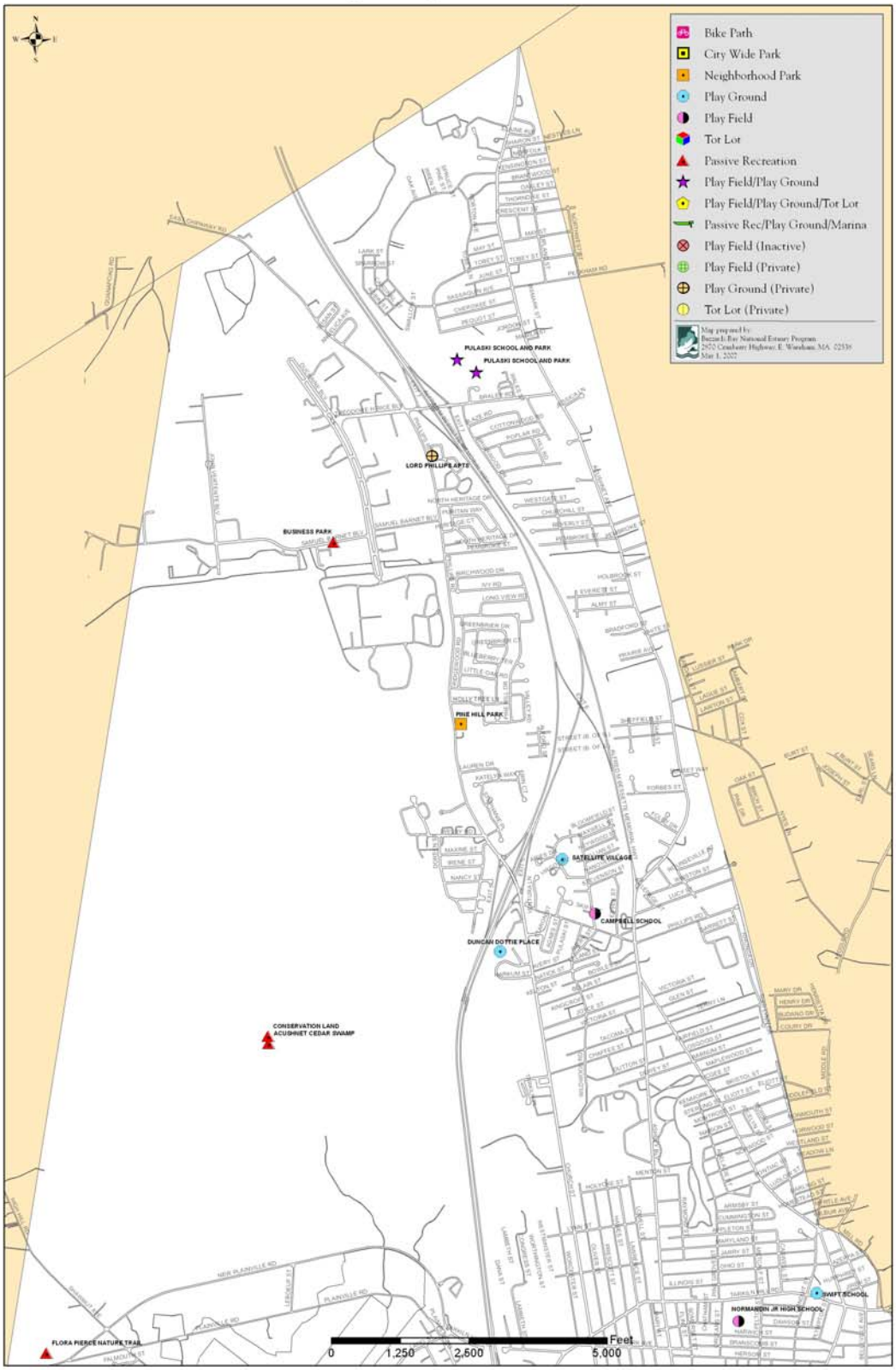
2-3.c. Support conservation and protection of an open space corridor along the Paskamansett River.	ConCom	2-3	BBNEP open space grants
Objective 4: Create community gardens and natural wildlife refuges within the city			
Actions	Responsible Party	Year	Funding Source(s)
2-4.a. Identify areas within the city that would be suitable and well received by neighbors as sites for community supported gardens.	OHCD ConCom	1-2	N/A
2-4.b. Identify areas within the city that would be suitable and well received by neighbors as natural sites which would be planted with vegetation that is attractive to butterflies and other species.	OHCD ConCom	1-2	N/A
2-4.c. Develop operation and maintenance plans for all community garden and wildlife sites.	OHCD Recreation Dept. ConCom	1-2	
Goal 3:Enhance the Quality and Appeal of New Bedford's Streetscapes			
Objective 1: Develop, implement, and fund street tree planting on city streets			
Actions	Responsible Party	Year	Funding Source(s)
3-1.a. Aim to acquire 200-400 new trees in each year through public and private entities.	DPI DPF	1-5	
3-1.b. Prepare a citywide tree planting master plan, tree inventory, identifying locations and appropriate tree species for planting to restore the city's tree-lined boulevards and side streets.	DPF DPI Planning Office ConCom	2-3	SRPEDD; UMass Amherst Extension
3-1.c. Prepare a street tree care and management plan for the city.	DPF	1-2	
3-1.d. Investigate feasibility of developing a tree farm on city owned land to provide a supply of trees at a reduced cost for city parks and streets.	DPI DPF	1	

3-1.e. Establish a Street Tree Endowment (based on Providence, RI model) to provide sustainable source of public/private funding for street trees.	DPF DPI	2	
3-1.f. Develop an urban forestry program coordinated by existing support groups.	DPF	1-2	
3-1.g. Revive the city nursery on Oneida Street.	DPF	3-5	
3-1.h. Create a Tree Ordinance to preserve historically significant trees.	Planning Office ConCom	1	N/A
3-1.i. Fund, on a yearly basis, an Urban Arborist to oversee tree planting master plan and maintenance.	DPF	1-5	
Objective 2: Replace degraded sidewalks and develop design standards			
Actions	Responsible Party	Year	Funding Source(s)
3-2.a. Support city policy and funding to require reconstruction of concrete sidewalks whenever possible.	DPI Planning OHCD	1-5	PWED;
3-2.b. Develop and implement streetscape design standards.	Planning Office DPI	1-5	N/A
3-2.c. Repair, replace, and expand the number of curb cuts so as to provide easier and safer mobility for the disabled and families with strollers.	DPI	1-5	N/A
Objective 3: Incorporate green space and environmental concerns in commercial and utility development			
Actions	Responsible Party	Year	Funding Source(s)
3-3.a. Require underground utilities whenever possible on existing streets and new developments when roads are completely reconstructed. Work with local utilities to develop yearly goals.	Planning Office DPI	1-5	N/A
3-3.b. Develop review process for utility easements on public open space and parks.	Planning Office DPF	2	N/A

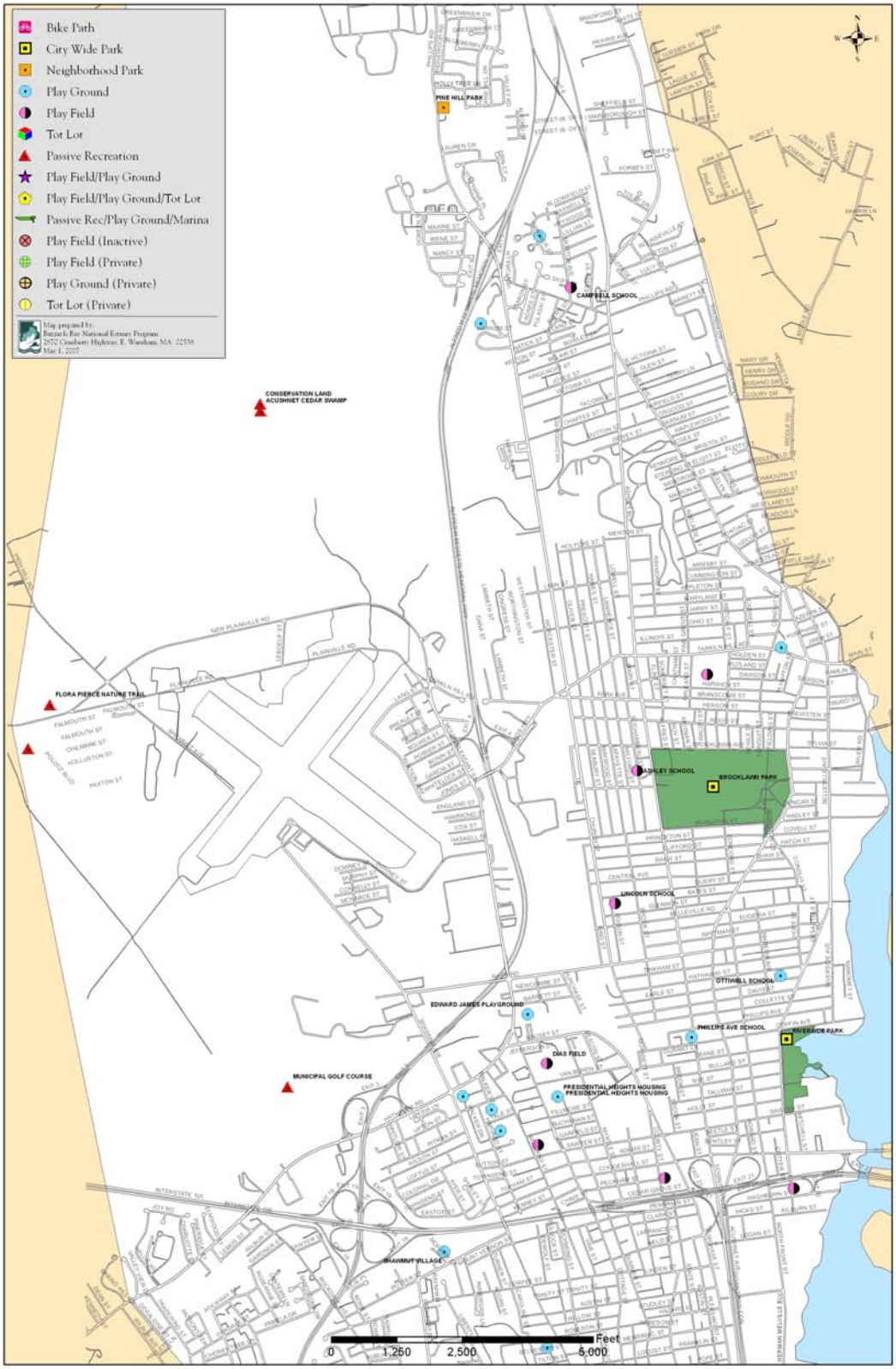
Goal 4: Restore & Enhance New Bedford's Park System's Historical & Cultural Characteristics			
Objective 1: Celebrate New Bedford's Historic and Cultural Heritage			
Actions	Responsible Party	Year	Funding Source(s)
4-1.a. Acquire copies of all Olmsted New Bedford projects/documents on file with the National Park Olmstead Center for Landscape Preservation and at the New Bedford library.	Planning Office Friends of Buttonwood Park	1	N/A
4-1.b. Review and implement where possible original Olmsted landscape plans, specifically at Buttonwood Park.	Planning Office Friends of Buttonwood DPF	1-5	In-kind resources
4-1.c. Develop an identification process for historic landscapes and view corridors.	Planning Office	2-3	N/A
4-1.d. Work with the National Park Service to enhance the city's Whaling National Historical Park.	City of New Bedford NB Whaling NHP	1-5	N/A
4-1.e. Develop a historic trail system through the city highlighting the city's important cultural and historic aspects.	Tourism & Marketing Planning Office	2-3	Preservation Society; WHALE
4-1.f. Work with local arts and culture groups to further support and manage community based events.	Planning Office Comm. Services Tourism & Marketing Recreation Dept.	1-5	Mass Cultural grants

Goal 5: Initiate Implementation and Funding Mechanisms to Support Open Space and Recreation Needs			
Objective 1: Create a permanent Open Space Committee to oversee implementation and funding of the New Bedford Open Space and Recreation Plan			
Actions	Responsible Party	Year	Funding Source(s)
5-1.a. The Mayor should appoint a standing committee with representatives from City Departments, neighbor-hood organizations, nonprofits, etc. This committee should meet on a quarterly basis to gauge effectiveness of the Open Space and Recreation Plan and to make further recommendations to the Plan.	Mayor's Office	1	N/A
5-1.b. Make maximum use of state, federal, and private funds, programs and grants to implement goals.	Open Space Comm. City of New Bedford HDC NBEDC	1-5	MassDevelopment
5-1.c. Work with surrounding communities to maximize leveraging of funds to further acquire and develop open space.	Open Space Comm. City of New Bedford NBEDC	1-5	MassDevelopment; SRPEDD

New Bedford's Open Space & Recreational Areas



New Bedford's Open Space & Recreational Areas



New Bedford's Open Space & Recreational Areas

New Bedford's Open Space & Recreational Areas

X. PUBLIC COMMENTS

Citizens Comments On Open Space & Recreational Matters
The following is a compilation of issues related to open space and recreational opportunities that were introduced by citizens at the Master Plan public meetings held in each Ward during the summer of 2006:

- Determine chain of command for park maintenance/enhancement/budget
- Master Plans for each of the major parks including Fort Taber, Hazelwood, Buttonwood, Brooklawn, Riverside, Pulaski (some have plans, which may only need revision/update)
- Create a management plan for each, including a permanent budget for the maintenance and enhancement of each existing park
- Include a yearly maintenance schedule for each
- Help neighbors create a "Friends" group for each of the major parks modeled on Friends of Buttonwood
- Determine a new (possibly rotating) site for the Whaling City Festival
- Prior to new parks/playgrounds coming online, ensure that they have a budget set aside for maintenance
- Hire an Urban Forester
- Create & maintain a city-wide tree management plan
- Creation of a Code Enforcement Division/Park & Beach Rangers
    - Sole responsibility is enforcement of quality of life issues i.e. litter, park & beach patrols, maintenance of vacant city lots
- Determine the appropriateness of "land stewards" for each park, playground, tot lot, vacant city lot
    - Responsible for pick up of litter, light maintenance i.e. weeding
    - Notify their city contact with issues i.e. broken facilities, illegal dumping, suspicious/illegal behavior
    - "Eyes & Ears" for the city
- "Adopt a Park" program for local businesses
- Adopt a Highway – Rt. 140, Rt. 6, I-195
- Create community centers at the schools after hours/weekends, especially in winter
    - i.e. far north end has no Boys & Girls Club, YMCA, etc.
- Protection of natural resources including Clark's Cove, watershed districts
- Determine criteria for how and where to construct new parks/playgrounds
- Research the feasibility of a dog park
- Research the feasibility & location for a community garden
- Research the feasibility of turning the former Reliable Truss land into open space
- Enhance Wings Court; cultural programming
- Restroom facilities at every major park, like those at Riverside
- Contract w/company for daily maintenance
- Create a regional open space plan w/Acushnet, Fairhaven, Dartmouth that includes a bike path

XI. REFERENCES

2000. *Shellfish Division Report*. City of New Bedford Department of Public Infrastructure, Shellfish Division.

2001. *Comprehensive Recreation and Open Space Plan*. 2001. City of New Bedford Planning Department. New Bedford, Massachusetts.

February 2007. *Mapping of the City of New Bedford resources*. Buzzards Bay Estuary Project, Massachusetts Coastal Zone Management.

City of New Bedford Office of Tourism and Marketing. http://www.newbedford-ma.gov/Tourism/Welcomes/Welcome.htm.

Community Demographics. City of New Bedford, Office of Housing and Community Development. Retrieved on October 22, 2007 from http://www.ci.new-beford.ma.us.

New Bedford Harbor Recreational Overview. January 27, 1999. City of New Bedford, Office of Tourism and Marketing.

New Bedford Whaling National Historical Park. U.S. Department of Interior National Park Service http://www.nps.gov/nebe.

Open Space and Recreation Plan Requirements, 1990. Revised 2001. Massachusetts Executive Office of Environmental Affairs (EOEA).

Open Space Planner's Workbook: Companion to the 1990 Open Space and Recreation Plan Requirement, Second Edition. 1993. Massachusetts Executive Office of Environmental Affairs (EOEA).

Smith SC, Pisaturo TA, Tedesco RG, et al. *Southeastern Massachusetts Fact Book: Data Summary and Developers Guide.* 1993. Southeastern Regional Planning and Economic Development District (SRPEDD).

Appendix A

504 Self-Evaluation: Parks, Open Space and Conservation Lands

Table of Contents

I. 504 Self-Evaluation Overview

II. 504 Review Listing of Parks, Open Spaces & Conservation Lands

III. Compliance Guidelines for the Section 504 Self-Evaluation

I. 504 Self-Evaluation Overview

The City of New Bedford Planning Department in cooperation with the ADA Coordinator, the City of New Bedford Commission for Citizens with Disabilities undertook the 504 Self Evaluation of all City managed Parks, Open Spaces and City managed Conservation property.

The evaluation took approximately two months (March, April, 2007) to complete with the personal site assistance of Diane E. Figueira, ADA Coordinator-City of New Bedford.
The 504 Evaluation was compiled using the Compliance Guidelines for the Section 504 Self Evaluation (Open Space Planners Handbook) and current Massachusetts Architectural Barriers Board regulations.

The 504 Evaluation identified physical obstacles, and described necessary changes to parks and open spaces. The overall Open Space and Recreation: "Master Plan" describes these issues and sets out time lines and responsible parties to undertake the transition plan.

II. 504 Review Listing of Parks, Open Spaces & Conservation Lands

Ashley Park

I. Site Access / Signage

a. Walkways - accessible walkways throughout park
b. Parking - no defined handicap parking
c. Curb cuts - curbs cuts need to be assessed and redesigned around the park
d. Signage - NA

II. Recreation Equipment

a. Play equipment - not accessible, but viewing areas are accessible
b. Swings - inaccessible
c. Benches - accessible
d. Water Fountain - none
e. Trashcans - accessible, but a lower unit would be more acceptable
f. Picnic shelters - none

III. Facilities

a. Community Center is fully accessible, including restrooms
b. A minor modification should be made to lower coat hooks in the bathroom stalls
c. To improve accessibility the kitchen sink could be lowered and have the cabinet obstruction removed
d. Add transfer seats in the bathroom stalls (could be provided by the Committee for People with Concerns)

IV. Notes

a. Provide defined accessible parking spaces on Orchard St.
b. When replacing play unit provide handicap access (solid surfacing and unit access)
c. Provide accessible picnic tables by play unit and in common area near Community Center
d. Provide alternatives for handicap access (areas in the sun and areas in the shade)
e. Baseball diamonds should incorporate handicap viewing areas at bleachers
f. Rebuild curb cuts around the park
g. Rebuild sidewalks on Bonney St. side of park

Brooklawn Park

I. Site Access / Signage

a. Walkways - accessible walkways into and around park
b. Walkways need to be installed leading to play area
b. Parking - defined parking areas at Senior Center
c. Curb cuts - N/A
d. Signage - None

II. Recreation Equipment

a. Play equipment - not accessible
b. Swings - inaccessible
c. Benches - some accessible
d. Water Fountain - none
e. Trashcans - some accessible
f. Picnic shelters - none

III. Facilities

Senior Center is accessible including restrooms

IV. Notes

a. Provide more defined accessible parking spaces around tennis, picnicking and play areas.
b. When replacing play unit provide handicap access (solid surfacing) Provide accessible picnic tables under tree areas.
c. Provide alternatives for handicap access (areas in the sun and areas in the shade)
d. Provide accessible viewing of lawn bowling from rear of senior center (off deck) NOTE: Bowling no longer takes place
e. Provide handicap overview of festivals (access to vendors, food, events and restrooms). NOTE: Provide temporary ramps. Curb cuts are not an option due to the occasional accumulation of water in area, along with duck pond would flood a great portion of the park.
f. Repair transition areas (from black top to grass large drops - 3+inches)

Buttonwood Park

I. Site Access / Signage

a. Walkways - accessible walkways into and around park
b. Walkways need to be refurbished leading to basketball courts and rear of tennis areas
c. Parking - defined parking areas at warming house and zoo.); 0 defined accessible parking on west side of park by pond viewing area
d. Curb cuts - curbs cuts need to be refined at fisherman's monument and library and at the crossing of Rockdale Ave. and Court St.
e. Signage -NA

II. Recreation Equipment

a. Play equipment - not accessible, but viewing areas are accessible. NOTE: Plans are in place through the Commission for Citizens with Disabilities & Friends of Buttonwood to build an accessible playground, fundraising efforts have begun.
b. Swings - inaccessible
c. Benches - accessible
d. Water Fountain - none
e. Trashcans - accessible
f. Picnic shelters - none

III. Facilities

a. Warming house is accessible, but when remodeling bathrooms should be brought up to current code standards
b. Zoo is accessible along with public facilities

IV. Notes

a. Provide defined accessible parking spaces at pond viewing area (west) When replacing play unit provide handicap access (solid surfacing)
b. Provide access to picnic tables along pond (next to warming house)
c. Provide alternatives for handicap access (areas in the sun and areas in the shade) Baseball diamonds should incorporate handicap-viewing areas at bleachers and behind backstops.
d. Provide handicap overview of festivals (access to vendors~ food, events and restrooms).
NOTE: Handicap overview is provided by ADA Coordinator

Clasky Common Park

I. Site Access / Signage

a. Walkways - accessible walkways throughout reconstructed park; lower park (Purchase to Pleasant S1. is inaccessible)
b. Parking - no defined handicap parking
c. Curb cuts - curb cuts in compliance on upper portion of park; lower portion of park is not accessible by curb cuts
d. Signage - NA

II. Recreation Equipment

a. Play equipment - inaccessible
b. Swings - inaccessible (solid surfacing and 1 chair swing)
c. Benches - accessible on upper portion, inaccessible on lower portion.
d. Water Fountain - accessible
e. Trashcans – accessible on upper portion, inaccessible on lower portion.
f. Picnic areas - none

III. Facilities

None

IV. Notes

a. The reconstructed portion of the park is a model facility for accessibility
b. Pathways, seating areas, and a wide range of choices allows a disabled individual to experience a wide range of activities
c. The lower portion is inaccessible by lack of curb cuts and entries
d. Phase II of the reconstruction will solve the accessibility issues
e. Designate an accessible parking space across from an entry either on Pearl St. or Pope St.

Fort Taber

I. Site Access / Sign age

a. Walkways - accessible walkways throughout park.
b. Parking - defined handicap parking
c. Curb cuts - in compliance throughout park and parking areas
d. Signage - NA

II. Recreation Equipment

a. Play equipment - accessible (proper access onto unit with ramp and appropriate turning radius on platforms)
b. Swings - accessible (solid surfacing and 1 chair swing)
c. Benches - accessible
d. Water Fountain - accessible (plus accessible shower unit)
e. Trashcans - accessible
f. Picnic areas - fully accessible including cooking grills
g. Placement of telescopes around the park is accessible by approach and height

III. Facilities

a. Bathroom facilities are accessible, but not open to the general public
b. Currently, there are portable toilets on the site with one accessible

IV. Notes

a. This is a model facility for accessibility
b. Parking, pathways, seating areas, overlooks, play areas, picnic areas and a wide range of choices allows a disabled individual to experience a wide range of activities
c. The construction of a Braille trail is included in this plan

Hazelwood Park

I. Site Access / Signage

a. Walkways - accessible walkways into and around park
b. Walkways need to be installed leading to concert area
b. Parking - signage needed for disabled parking areas at Senior Center
c. Curb cuts - N/A
d. Signage - one existing handicap parking sign at tennis area

II. Recreation Equipment

a. Play equipment - not accessible; tennis area is inaccessible
b. Swings - inaccessible
c. Benches - some accessible
d. Water Fountain - none
e. Trashcans - some accessible
f. Picnic shelters – none

III. Facilities

Senior Center's first floor is accessible including restrooms

IV. Notes

a. Provide more defined accessible parking spaces around Senior Center & picnicking areas
b. When replacing play unit provide handicap access (solid surfacing)
c. Provide accessible picnic tables under tree areas
d. Provide alternatives for handicap access (areas in the sun and areas in the shade)
e. Provide handicap overview of festivals (access to vendors, food, events and restrooms)
f. Repair transition areas (from black top to grass large drops of 3+inches)
g. Provide access and viewing area of band shell

Baby Kenney's Tot Lot (Acushnet Ave. South)

I. Site Access / Signage

a. Walkways - sidewalks along front of playground, but none accessing park
b. Parking - no defined accessible parking
c. Curb cuts - no curb cuts into park from street
d. Signage - none

II. Recreation Equipment

a. Play unit / surface is not accessible (play surface is gravel)
b. Swings - not accessible
c. Benches - not accessible
d. Water Fountain - none
e. Trashcans - trash barrels are not accessible
f. Picnic shelters - none

III. Facilities

None

IV. Notes

a. Place accessible water fountain at site
b. Provide accessible parking space
c. Provide curb cut at entry of park
d. Provide accessibility to at least one bench and viewing area
e. When replacing play unit add accessible transfers and play area (including paving)

Beauregard-Pina Park (South First St.)

I. Site Access / Signage

a. Walkways - accessible walkways into park and spray areas
b. Parking - no defined handicap parking across
c. Curb cuts - at corners
d. Signage - none

II. Recreation Equipment

a. Play equipment - not accessible, but viewing areas are accessible
b. Swings - inaccessible
c. Benches - accessible
d. Water Fountain - none
e. Trashcans - accessible
f. Picnic shelters - None

III. Facilities

None

IV. Notes

a. Provide defined accessible parking spaces
b. When replacing play unit provide handicap access
c. Provide access to picnic tables

Bellville Avenue Park

I. Site Access / Signage

a. Walkways - other than the sidewalk there are no walkways
b. Parking - no specific spaces or lots
c. Curb cuts - none
d. Signage - none

II. Recreation Equipment

a. Play unit/surface - none
b. Swings - none
c. Benches - none
d. Water Fountain - none
e. Trashcans - none
f. Picnic Shelters - none

III. Facilities

None

IV. Notes

a. Add specific spaces, curb cuts, and signs for the handicapped
b. Add paths to access the basketball court
c. Add accessible benches and trash cans

Bonney Street Tot Lot

I. Site Access / Signage

a. Walkways - the sidewalk is the only walkway not accessible
b. Parking - none
c. Curb cuts - none
d. Signage - none

II. Recreation Equipment

a. Play unit/surface - not accessible
b. Surrounded by non-level surface
c. Swings - not accessible, surrounded by non-level surface
d. Benches - 2 units not accessible
e. No Paths or level surface leading to units
f. Water Fountain - none
g. Trashcans - 2 units, not accessible
h. No paths or level surface leading to units
i. Picnic Shelters - none

III. Facilities

None

IV. Notes

a. Add accessible paths, trash cans, and benches
b. Make appropriate curb cuts
c. Provide accessible play equipment

Brock Avenue South - Baseball Fields

I. Site Access / Signage

a. Walkways - paved walkway around fields is accessible
b. Parking - defined accessible parking on the side street making impaired individual travel around to front of park
c. Curb cuts - not applicable
d. Signage - none

II. Recreation Equipment

a. Playfields - Little league fields are accessible Pony league field is inaccessible
b. Swings - none
c. Benches - along 2 fields are accessible, 1 bleacher area is inaccessible
d. Water Fountain - none
e. Trashcans - trash barrels are accessible in some areas
f. Picnic shelters - none

III. Facilities

"Canteen" is not handicap accessible

IV. Notes

a. Place accessible water fountain at site
b. Provide accessible parking spaces
c. Pave parking area and provide accessibility to site
d. Provide paved access to all viewing and bleacher areas
e. Provide accessibility to canteen and any other service areas
f. Provide accessible bathroom

Dias Fields

I. Site Access / Signage

a. Walkways - paved walkway from parking area to one field, other fields are inaccessible
b. Parking - no defined handicap parking.
c. Curb cuts - one needed on Van Buren Street south side
d. Signage - none

II. Recreation Equipment

a. Play fields - one field is accessible
b. Play equipment - not accessible
c. Swings - not accessible
d. Benches - bleachers and benches are not accessible
e. Water Fountain - none
f. Trashcans - trash barrels are accessible in some areas
f. Picnic shelters - none

III. Facilities

"Canteen" is not handicap accessible

IV. Notes

a. Place accessible water fountain at site
b. Provide accessible parking spaces
c. Pave parking area and provide accessibility to site
d. Provide paved access to all viewing and bleacher areas
e. Provide accessibility to canteen and any other service areas
f. Provide accessible bathroom
g. Provide accessible viewing area and benches at play area

East Beach

I. Site access / Signage

a. Walkways - accessible paved walkways leading to pier, however there are no accessible paths leading to the play units, volleyball area, or beach
b. Parking - no handicapped signage
c. Curb cuts - appropriate curb cuts that make the walk way to the pier accessible, along with curb cuts that would make the volleyball / beach area accessible if walkways were added; curb cuts would be needed in order to make the play area accessible
d. Signage - none
e. Concession Stand - not accessible due to no walkway
f. Restrooms - not accessible

II. Recreation Equipment

a. Play unit / surface - not accessible; no paths or level surfaces leading to the unit
b. Slide - not accessible
c. Swings - not accessible
d. Benches - 16 accessible benches on the pier; 2 benches in the play area are not accessible because there are no paths or level surfaces leading to them
e. Trashcans - 2 accessible trash receptacles on the pier; 1 accessible trash receptacle on the bike / walking route; 1 trashcan in play area not accessible
f. Picnic Shelters - none
g. Volleyball area - not accessible
h. Beach Area - not accessible

III. Facilities

None

IV. Notes

a. Add Curb cuts and paved path to play area
b. Add accessible paths from existing curb cuts to volleyball / beach area
c. Add accessible trashcans and benches to volleyball area

Flora B. Pierce Nature Trail

I. Site Access / Signage

a. Walkways - no accessible walkways
b. Parking - no defined handicap parking across the street from site access
c. Curb cuts - none
d. Signage - none

II. Recreation Equipment

a. Play equipment - none
b. Swings - none
c. Benches - none
d. Water Fountain - none
e. Trashcans - none
f. Picnic shelters - none

III. Facilities

None

IV. Notes

a. Provide defined accessible parking spaces
b. Plan handicap access to nature trail and viewing areas

Harrington Park

I. Site Access / Sign age

a. Walkways - accessible walkways throughout park
b. Parking - no defined handicap parking
c. Curb cuts – needed on Court Street & Newton Street
d. Signage - none

II. Recreation Equipment

a. Play equipment - not accessible, but viewing areas are accessible
b. Swings - none
c. Benches - accessible
d. Water Fountain - none
e. Trashcans - accessible
f. Picnic shelters - none

III. Facilities

None

IV. Notes

a. Place accessible water fountain at site
b. Provide accessible parking spaces
c. Provide paved access to viewing area
d. Provide accessible play unit

Magnett Park

I. Site Access / Sign age

a. Walkways - existing, but not accessible
b. Parking - no defined handicap parking
c. Curb cuts - no curb cuts leading to the park
d. Signage - none

II. Recreation Equipment

a. Play unit / surface - not accessible
b. Swings - not accessible
c. Benches - not accessible
d. Water Fountain - none
e. Trashcans - 2 trash barrels inaccessible, 1 trash barrel accessible
f. Picnic tables - 5 not accessible (by path or design)

III. Facilities

None

IV. Notes

a. Place accessible water fountain at site
b. Provide accessible parking space
c. Provide curb cut at entries of park
d. Provide accessibility to at least one picnic bench
e. Provide accessibility to 2 benches
f. Develop accessibility plan and design for park

Marine Park

I. Site Access / Sign age

a. Walkways - none
b. Parking - no marked accessible parking in relation to play area
c. Curb cuts – none
d. Signage - none

II. Recreation Equipment

a. Play unit / surface - not accessible, no solid surface or paved access to play unit
b. Swings - none
c. Benches – 10 with no access
d. Water Fountain - none
e. Trashcans - are accessible at parking area; no trash receptacles in park area
f. Picnic shelters - none

III. Facilities

None

IV. Notes

a. Add curb cuts and provide solid surface path to play area
b. Place accessible benches at play area
c. Add designated parking spaces (2) and associated curb cuts
d. Add a handicap accessible drinking fountain
e. Add a handicap accessible trash receptacle near play area

Montes Park (Acushnet Avenue - south)

I. Site Access / Signage

a. Walkways - accessible
b. Parking - no defined accessible parking
c. Curb cuts - no curb cuts into park from street
d. Signage - none

II. Recreation Equipment

a. Play unit / surface - not accessible
b. Spray area - accessible
c. Swings - not accessible
d. Benches - accessible
d. Water Fountain - none
e. Trashcans - are accessible
f. Picnic shelters - accessible

III. Facilities

None

IV. Notes

a. Place accessible water fountain at site
b. Provide accessible parking space
c. Provide curb cut at entry of park.
d. When replacing play unit add accessible transfers and play area (including paving)
e. Provide access into play unit area (cut curbing and provide smooth transition)

Mother Theresa's Park

I. Site Access / Sign age

a. Walkways - one walkway within the enclosed area that serves as a rest area that contains benches
b. Parking - available parking on surrounding street; no specifically marked spots for the park or the handicapped
c. Curb cuts – 1 curb cut on the comer of the sidewalk
d. Signage - none

II. Recreation Equipment

a. Play unit / surface - not accessible
b. Swings - none
c. Benches - accessible
d. Water Fountain - none
e. Trashcans - not accessible
f. Picnic Shelters - none

III. Facilities

None

IV. Notes

a. Add specifically marked handicapped parking on streets, along with appropriate signs and curb cuts

Pine Hill Park

I. Site Access / Signage

a. Walkways - no accessible walkways
b. Parking - no defined handicap parking
c. Curb cuts – not applicable
d. Signage - none

II. Recreation Equipment

b. Play equipment - inaccessible
c. Basketball courts - inaccessible
d. Swings - inaccessible
e. Benches - none
f. Water Fountain - none
g. Trashcans - not accessible
h. Picnic shelters - none

III. Facilities

None

IV. Notes

a. Provide accessible parking spaces
b. Provide paved access to play areas
c. Provide access to basketball courts
d. Provide accessible water fountain
e. Provide accessible play units and swing
f. Entire park is in complete disrepair
g. Basketball court is unsafe
h. A clear path of travel is needed

Pulaski Park

I. Site Access / Signage

a. Walkways - not accessible
b. Parking - no defined handicap parking
c. Curb cuts - not applicable
d. Signage - none

II. Recreation Equipment

a. Play equipment – inaccessible, unsafe
b. Basketball courts - inaccessible, unsafe
c. Swings - none
d. Benches - none
e. Water Fountain - none
f. Trashcans - none
g. Picnic shelters - none

III. Facilities

None

IV. Notes

a. Provide accessible parking spaces
b. Provide paved access to play areas
c. Provide access to basketball courts
d. Provide accessible water fountain
e. Provide accessible play units and swing
f. Gates are locked, there are dead trees and a large boulder in the play area
g. All equipment is unsafe

Riverside Park

I. Site Access / Signage

a. Walkways - accessible walkways to skate park and tot lot
b. Parking – 2 defined handicap parking spaces
c. Curb cuts - accessible
d. Signage - yes

II. Recreation Equipment

a. Play equipment - not accessible
b. Swings - not accessible
c. Benches - accessible
d. Water Fountain - none
e. Trashcans - not accessible
f. Picnic shelters - none

III. Facilities

None

IV. Notes

a. Provide increased accessible parking spaces
b. When replacing play unit provide handicap access
c. Provide accessible trash cans
d. Provide access to inline skating rink
e. Signage needed on accessible bathroom on north side
f. Curb cuts needed on Sawyer St. entrance south side

Roberto Clemente Park

I. Site Access / Signage

a. Walkways - are paved with access to basketball court
b. Parking - no defined handicap parking
c. Curb cuts - no curb cuts leading to the park
d. Signage - none

II. Recreation Equipment

a. Play unit / surface - none
b. Swings - none
c. Benches – 2 accessible around basketball court
d. Water Fountain - none
e. Trashcans - are accessible
f. Picnic shelters - none

III. Facilities

None

IV. Notes

a. Place accessible water fountain at site
b. Provide accessible parking space
c. Provide curb cut at entry of park
d. Provide accessibility to at least one picnic bench

Victory Park (Brock Avenue)

I. Site Access / Signage

a. Walkways - no accessible walkways
b. Parking - no defined handicap parking
c. Curb cuts - not applicable
d. Signage - none

II. Recreation Equipment

a. Play equipment - none
b. Swings - none
c. Benches - not accessible
d. Water Fountain - none
e. Trashcans - not accessible
f. Picnic shelters -none

III. Facilities

Old warming house (not used by public)

IV. Notes

a. Provide accessible parking spaces
b. Provide paved access to viewing area

West Beach

I. Site Access / Signage

a. Walkways - accessible and appropriate
b. Parking - accessible and specifically marked for the handicapped
c. Curb cuts - yes
d. Signage - marked spots for the handicapped

II. Recreation Equipment

a. Play unit / surface - none
b. Swings - none
c. Benches - none
d. Water Fountain - none
e. Trashcans - not accessible
f. Picnic Shelters - none
g. Beach - accessible, however the water is not accessible

III. Facilities

Showers/restrooms closed to public

IV. Notes

a. Add handicapped accessible walkways to the water
b. Add accessible trashcans

West End Playground

I. Site Access / Signage

a. Walkways - no paved access to play area for viewing
b. Parking - no defined handicap parking
c. Curb cuts - existing
d. Signage - none

II. Recreation Equipment

a. Play equipment - not accessible
b. Swings - not accessible
c. Benches - none
d. Water Fountain - none
e. Trashcans - not accessible
f. Picnic shelters - none

III. Facilities

None

IV. Notes

a. Place accessible water fountain at site
b. Provide accessible parking spaces
c. Provide paved access to viewing area
d. Provide accessible bench and picnic area
e. Provide access to swing area
f. Provide access to play unit

Appendix B