

CITY OF MEDFORD

# OPEN SPACE

& RECREATION PLAN UPDATE 2011



**CITY OF MEDFORD** OFFICE OF COMMUNITY DEVELOPMENT  
Mayor Michael J. McGlynn

**Weston & Sampson**



# Acknowledgements

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## 01. Plan Summary

### Summary

Medford's open space system plays a key role in the City's quality of life and economic vitality. Twenty-six City parks and playgrounds serve residents in every neighborhood and offer Citywide recreational opportunities. Over 1,200 acres of Department of Conservation and Recreation (DCR) land in the Middlesex Fells and along the Mystic River provide highly coveted contiguous open space. The historic Brooks Estate is a significant resource with its attendant 50 acres of woods and Brooks Pond. With 33% of its land protected as open space, Medford is rich in places to recreate, surface water resources, and pervious land to mitigate stormwater and water quality concerns. Medford has the opportunity to leverage these considerable assets into a primary reason people choose Medford as a place to live, work, and play.

A six-person Open Space Committee was established to help guide the Open Space Plan update process. Community engagement played a significant role in determining the actionable outcomes of the plan. In addition to two City-wide public forums in the Alden City Council Chambers at City Hall and an online public survey, meetings were held with the Parks Board, Diversity Director, Parks Maintenance staff, Brooks Estate advocates, sports league representatives, the City Council, Conservation Commission, Hormel Stadium Commission, and the Mayor.

A draft of the Open space Plan was posted on the City's website on May 1st, 2012 for public review. The plan's availability was advertised in the Medford Mercury, posted in the City Clerk's Office and sent to members of the Medford City Council and the Medford Board of Health. Copies of the Draft Plan were also sent to the members of the Medford Community Development (Planning) Board, Conservation Commission, Park Board and the Metropolitan Area Planning Council and the plan was presented to and endorsed by the Community Development Board on May 16th 2012.

Comment letters were submitted by Mayor McGlynn, the Medford Community Development Board, the Medford Conservation Commission, and the Metropolitan Area Planning Council in addition to Medford residents Kenneth Krause, Carolyn Rosen and William Wood. All comments have

been noted and referred to the relevant parties where appropriate. A response to disability referenced comments on the open space plan has been provided by the City's ADA coordinator and is included with the comment letters in Section 10.

After thorough review and analysis of the findings from this extensive public outreach process, a series of goals, objectives, and a seven year action plan were developed. The City has an outstanding record of implementing the recommendations of previous plans, including:

### Park Rehabilitation

- Renovation of Barry, Columbus, Dugger, Hickey, Playstead and Morrison playgrounds and Victory Park, improvement to the courts at Playstead, the track at Hormel Stadium, and synthetic turf with lighting at the high school fields; Riverbend Park received a complete reconstruction; the "Slave Wall" at the Thomas Brooks Park was restored and stabilized; Columbus Park courts and fields were renovated along with improvements to a small parking area and streetscape improvements; Veterans Memorial Park received new bleachers at the ball field; and a series of enhancements continue to be implemented on an annual basis at the Brooks Estate.

### New Parks & Improved Access

- Development of a new community garden was established at Riverbend Park; a new practice football field was developed at Medford High School; the master plan for a riverfront greenspace connection between Riverbend Park and Medford Square was developed and several important links have been established, including improvements to the Condon Shell and Clippership Park.



## Policy & Programs

- Since 2000, as parks are renovated they receive accessibility improvements and many of the parks and playgrounds now comply with Americans with Disabilities Act guidelines; Medford residents have permit priority over outside entities; and the "Adopt-a-Site" program continues to provide a meaningful method for streetscape beautification.

Open Space Goals and Objectives are listed in Chapter 8. While major goals have been identified there is a baseline goal that must be accomplished before other priorities can be achieved:

### **Evaluate the ability for the City to maintain its open space resources and facilitate improvements within the City's park maintenance department.**

Economic pressures have led to cuts in City staff. The parks maintenance staff was among those groups hard hit by personnel reductions. As a result, the impressive collection of parks and open space owned and maintained by the City has fallen into varying levels of disrepair. The maintenance crew has been relegated to a reactive



mode of operations, and some basic maintenance has been contracted out. Often driven by complaints made to the Mayor's office, or sports league schedules, the City maintenance crew is constantly trying to catch up with user demands. Through out the site assessment and public feedback processes, it was apparent that playing fields and site furnishings have been hardest hit. Public sentiment in Medford matches that found in the 2006 State Comprehensive Outdoor Recreation Plan "Among other needs, area residents mirror other regions of

the state by strongly favoring maintenance and restoration of existing facilities."

Unfortunately much of the public funding available categorically excludes maintenance operations. This leaves many cities and towns to rely on renovation dollars to rescue parks that have fallen into critical states of disrepair due to lack of maintenance. This Plan offers possible solutions to that conundrum through establishing funds for maintenance through user permit fees, and funding capital improvements through a newly established Community Preservation Committee, among others.

The following goals represent the focus of the City's approach to its parks and open space system in the coming years:

### **Goal #1: Serve the active recreation needs of residents throughout Medford by upgrading the conditions of existing facilities.**

This goal embraces the renovation of playing fields and playgrounds as well as the improvement of multi-use facilities to support organized and informal sports; to serve youth, academic, and adult sports leagues with adequate playing conditions; and to mitigate post-rain field limitations through the conversion from natural to synthetic turf field at Hormel Stadium and sports lighting at a baseball field within City limits.

### **Goal #2: Establish connections to and along the City's natural resources.**

This goal stresses the interconnection of open spaces, and improved access to natural resources, especially Medford's riverfront environment. An important long-term objective is to establish continuous accessible pedestrian and bicycle access along the full length of the lakes, plus the Mystic and Malden rivers.

### **Goal #3: Expand / diversify recreational programming for the City within the existing open space network.**

Through the creative reuse of existing open space land and other underutilized properties, community gardens and off-leash recreation areas can be established to serve a greater number of Medford's residents. Residents have expressed a great need for more community garden space as the one existing



A photograph of a brick pillar topped with a decorative metal finial. A plaque is mounted on the pillar, and a metal gate is visible on the left. The pillar is constructed from red bricks with some weathering. The plaque is dark and contains text, including "YE OLDE MEDFORD" and "ESTABLISHED 1888". The gate is made of dark metal with circular patterns. The background shows bare trees and a clear sky.

Recent reports by the Department of Environmental Management on the low water quality of the Mystic River indicate larger ecological deficiencies caused by non-point source pollution. Stormwater management pilot projects offer an opportunity to mitigate urban pollutants and improve the quality of Medford's water bodies. As part of the larger watershed, wetland resources have been compromised by development and are in need of restoration. Disturbance at the perimeters of these natural resource assets have led to the colonization of exotic invasive vegetation and erosion of riverbanks, both of which have been identified for correction. Finally, an expanded urban forestry program to monitor, improve, and expand Medford's urban forest will contribute to better air quality, reduced heat island effect, and improved aesthetics throughout the City.

Currently the City is unable to provide adequate maintenance to its existing open spaces and athletic fields. There is currently no way to easily and effectively communicate to constituents about events, weather-related field closures, and programming opportunities.

- Rehabilitation and renovation of athletic facilities at Hormel Field (synthetic turf), and the addition of sports lighting at Carr Park and/or Playstead.

- Implementing accessible riverfront open space connections for bicycles and pedestrians through path improvements and water taxi connections to navigate the Mystic River.
- Pilot projects for stormwater treatment to be implemented in strategic watershed locations.
- Management of threats to a healthy urban ecology such as exotic invasive plant species and erosion mitigation along the water bodies.
- Policies that enhance the City's ability to generate much-needed funding for maintenance through permit use and commercial development linkage fees for open space.
- Establishment of community gardening and off-leash recreation areas in strategic locations through out the City.
- Private and community-based volunteer efforts to update street tree inventory, develop historic walking tours, maintain small open spaces, support the development of individual "friends of" groups for each park, and encourage wider use and continued improvement of the Brooks Estate.





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## 02. Introduction

Medford is home to a great variety of passive and active recreational open space ranging from neighborhood parks and playgrounds to the Middlesex Fells and paths along the Mystic River. This space is clearly a popular reason many citizens choose Medford as their home.

### Statement of Purpose

The purpose of this Open Space Plan is to continue the work of previous plans; to provide a guide for action to maintain and improve the quality of existing open space resources; and to add to the existing open space resources. In Medford a large portion of available resources will be used for maintaining heavily used facilities, but there are also opportunities for new and improved access to open space resources. This plan seeks to balance these two goals in accordance with City policy and community desires.

The City of Medford has prepared four open space plans since 1977. The next in that series evaluates progress made since the 2001 plan and looks forward to provide a structured Action Plan for the coming seven years. Longer term projects are also outlined to provide a basis for future planning and design. The Plan provides a framework for obtaining funding for open space improvements through state and federal programs such as the state Parkland Acquisitions and Renovations for Communities (PARC) Program and Community Development Block Grant money.

PARC is a Massachusetts Program (formerly the Urban Self-Help Program) established in 1977 to assist cities and towns in acquiring and developing land for park and outdoor recreation purposes. It is funded periodically through the state's Open Space Bond Bill. UPARR (Urban park and Recreation Recovery Program) is a federal program established in 1978 to provide assistance to urban communities in the rehabilitation and improvement of recreation facilities. It is funded periodically by Congress, but has not been since 2002. The Land and Water Conservation fund is a matching federal grant program administered by the National Park Service (NPS) that has funded over 40,000 park and recreation projects in the 40 year life-span of the program. Local and state grantees have acquired parks, constructed recreation centers, built athletic fields, maintained trails, preserved conservation areas, and purchased public lands

### Planning Process and Public Participation

The goals, objectives, and projects identified in this plan are based on the following sources of information:

- needs and desires identified at community meetings and through on-line survey
- a series of three meetings with the Open Space Plan Steering Committee
- online survey with over 300 respondents from across the City
- stakeholders meetings with the City Council, representatives from the Brooks Estate, and representatives from the disabled persons community
- a survey of the condition of each City-owned parkland and facilities
- population and socioeconomic information available on a Citywide basis (note that some of the 2010 census data was not available as of this printing so 2009 data was used)
- discussions with City officials responsible for protection, maintenance, and rehabilitation of open space
- review of the DCR Master Plan for the Mystic River
- input from the Medford Conservation and Park Commissions

Public meetings were advertised on the City's website, the local cable announcement channel, various e-mail address lists that went to sports leagues, friends groups, and volunteer organizations, as well as vigilant word of mouth. All local newspapers were notified and a large paid advertisement was published in the Medford Transcript. All committee meetings were also posted at the City Clerk's Office and the Medford Police Station. Environmental Justice neighborhoods received enhanced outreach through notification postings, and access to the online user survey at the Medford Public Library which offers free internet access.

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the City Clerk's Office and sent to members of the Medford City Council and the Medford Board of Health. Copies of the Draft Plan were also sent to the members of the Medford Community Development (Planning) Board, the Conservation Commission, the Park Board and the Metropolitan Area Planning Council. The plan was presented to and endorsed by the Community Development Board on May 16th 2012.

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The 2001 plan utilized available 1990 Census data and presented an analysis of population and socioeconomic conditions in Medford. The 2010 census data was becoming available on a limited basis at the writing of this master plan and will be updated as it is published. Much of the census data is from the 2009 release of the American Community Survey.

Except for large land areas protected from development, including over 1200 acres owned by the Department of Conservation and Recreation, the City of Medford is almost entirely developed. For this reason, the plan focuses on continued rehabilitations, ongoing maintenance, improved access, and some specific opportunities to expand the use of exiting City-owned properties.

The public participation process was captured through meeting notes, which are included in Appendix B.



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### Regional Context

Approximately five miles northwest of Boston in Middlesex County, the City of Medford is situated on the Mystic River. The City is a densely-settled residential suburb, with a mix of blue-collar and professional middle-class residents. The total land area of the City is 8.22 square miles. Neighboring towns include Winchester and Stoneham to the north, Malden and Everett to the east, Somerville to the south, and Arlington to the west. The City is bisected by Interstate I-93, running north-south and Routes 16 and 60 running east-west.

Medford shares the Mystic Lakes with Arlington and Winchester, and it shares the Middlesex Fells Reservation with Winchester and Stoneham. The Mystic River runs southeast from the Mystic Lakes across the southern third of the City and along the Somerville border. The Malden River runs south along the Medford/Everett border. These natural resources provide Medford and the region with opportunities for active recreation such as swimming, boating, fishing, hiking, picnicking, and biking. They also provide habitat for plant and animal life not typically found in urbanized areas. Except for a few parcels along the Mystic River, which are in private ownership, these resources are under the control of the Department of Conservation and Recreation (DCR). Thus, the open space system in Medford is part of a larger, regional open space system that benefits Medford residents as well as those of the surrounding communities.

The DCR owns over 1200 acres of open space in Medford - approximately 75% of Medford's entire open space area. The Mystic River Reservation accounts for approximately 130 acres of this, and the remaining 1100-plus acres are in the Middlesex Fells, which provides a unique recreational resource to the surrounding communities of Medford, Malden, Melrose, Stoneham, Woburn, and Winchester. The DCR is currently in the process of creating a Resource Management Plan for the Middlesex Fells, with projected completion in July 2011. In 2010 DCR released their "Mystic River Master Plan," detailing priorities and strategies for improving the environmental, recreational, and educational value of the lower Mystic River. This plan covers a one to two block buffer around the Mystic River through the municipalities of Arlington, Boston,

Everett, Medford and Somerville.

The Metropolitan Area Planning Council (MAPC) is a regional planning agency for the metropolitan Boston area. MetroFuture is the regional development plan for this area, and it includes specific goals for protecting the area's natural landscapes. These goals include:

- Emphasizing land preservation from a state and regional perspective
- Increasing funding for open space acquisition
- Encouraging conservation of private lands through incentives and regulations
- Providing funding and training opportunities to farmers
- Supporting the growth of the local agricultural market
- Increasing access and reducing restrictions to agricultural activities
- Facilitating the widespread use of conservation subdivision design
- Implementing zoning that preserves open space

The objectives and actions presented in Sections 8 and 9 of the Medford Open Space Plan are entirely consistent with the regional goals laid out by DCR and MAPC. The Medford Open Space Plan will help to realize those regional goals, and the plan further recognizes and endorses the goals and objectives of the Mystic River Master Plan and MetroFuture.

In the immediate area, Medford and surrounding communities cooperate on the development and protection of open space both directly and through the Inner Core Committee, one of eight MAPC subregions. An example is the cooperative efforts of Medford, Malden, and Everett to guide and encourage the River's Edge development. This undertaking started as TeleCom City, but the sudden decline of the "tech bubble" required a new strategy for the area. River's Edge is a multi-use development along the Malden River, adjacent to the Wellington T stop. The first phase of River's Edge has successfully attracted businesses and residents, and the new public waterfront park (to be extended

in future development phases) is popular with area residents and has garnered regional design awards. A second example is the planned Bike-to-the-Sea bike path project, which will begin at River's Edge and run to Lynn. The City of Everett has made considerable progress on this project.

Other regional initiatives include The Lower Mystic River Corridor Strategy Project and the Walking Routes to the River Project. Medford continues to be an active participant in both of these projects. The Lower Mystic River Corridor Strategy Project brought together the cities of Boston, Everett, Chelsea, Malden, Somerville, and Medford and was completed in 2009. The Walking Routes to the Mystic River Project is more current. Since 2010 MAPC has been collaborating with these municipalities to identify potential walking routes that would connect neighborhoods with the Mystic River and its tributaries. A significant outcome of the September 2011 workshop was the identification of five potential walking routes in Medford.

## History of Medford

Historical movements and key figures helped to shape the Medford open space system into what it is today. Early crusaders fought for wilderness preservation while others fostered a greater public awareness and appreciation for nature and open space.

Inhabited first by the Pawtucket Indians, the landscape of Medford consisted largely of a tidal river, tidal flats, vast wooded areas made up of oak, elm, walnut and pine, as well as open fields maintained annually through burning. The river was used as a trade route primarily to the west of Medford Square and provided sites for annual fishing camps along the Mystic Lakes.

The third oldest settlement in Massachusetts, predated by Plymouth and Salem, Medford was established as a private plantation in 1630 for Matthew Cradock the first governor of the Massachusetts Bay Company. Employees of Cradock saw the trees as lumber for ship masts, the open lands as area for farming and the salt marshes as a supply of hay.

The river became a major thoroughfare for travel early on and Cradock's workers spanned the Mystic with it's first bridge in

1637. They chose the site west of present day Medford Square at the location of the current John Hand pedestrian bridge. This was the easiest point at which to ford the river and was the only crossing point north of Boston until 1787. All traffic traveling in and out of Boston for 150 years had to cross this bridge. Paul Revere crossed the bridge on his historic ride to Lexington having had his route diverted through Medford. Present day Medford Square grew up around the site of the bridge with businesses serving travelers and trade increased to include taverns and rum distilleries.

Ships were first constructed on the Mystic in the 17th century, however, ship building as an industry did not take hold until the 19th century. This industry added a cosmopolitan character to Medford while at the same time fostering a disregard for natural forested areas now seen as profitable for cutting timber. The need arose to straighten segments of the Mystic River to improve navigability and efficiency.

Slavery came to Medford in the 17th century after Cradock was no longer the Owner of the plantation. It grew through the 18th century to reach 49 slaves at its peak, the majority of whom were held by Isaac Royall and his son. Slavery was ended in Massachusetts in 1783.

The boundaries of Medford expanded beyond those of the original plantation to include 760 acres south of the Mystic River acquired from Charlestown in 1754. Smaller parcels were acquired from Malden and Everett in the 19th century to fill Medford out to it's current boundary. Medford Square continued to serve as the 'crossroads' and was the nexus for the physical layout of roads into surrounding areas.

The Middlesex Canal was completed in 1803 and was the largest transportation project in the United States before the Erie Canal. It ran through Medford, roughly along Boston Avenue, Sagamore Avenue and along the Mystic Lakes. The 27-mile canal was a major factor in the building of 19th century America, transporting lumber, bricks and bulk goods to and from New Hampshire via its terminus in Lowell. Today the entire Middlesex Canal is on the National Register of Historic Places.

Elizur Wright played a key role during the

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19th century establishing the Middlesex Fells Association. He is known as the 'Father of the Fells' and was instrumental in the overall movement towards wilderness preservation. The process was an uphill struggle for him and his vision was not realized during his lifetime. He desired the Fells to be preserved as a public park for metropolitan Boston. In 1891 landscape architect Charles Elliot assisted in the creation of the Trustees for Reservations and continued the vision Wright had for a public park. Out of these efforts the Metropolitan Parks Commission was established laying out an even larger vision of Elliot's for a metropolitan park system for greater Boston.

Samuel Crocker Lawrence, the first mayor of Medford, opened up his estate to the public to encourage an appreciation for 'nature' and the importance of vegetation. This was part of a larger movement during the late 19th and early 20th centuries to link cities and towns to the outdoor open space and fresh air. He also led the challenge to rid Medford of the gypsy moth, where it originated.

The original 400 acres of the Brooks Estate were purchased in 1660. For 330 years it has remained an important part of the Medford landscape. A 12-acre parcel was purchased by Medford in 1853 after the Salem Street burial ground ran out of space. An additional 22 acres were purchased from the Brooks family in 1875, leading to the creation of the Oak Grove Cemetery. Today the remainder of the Brooks Estate has been preserved in perpetuity. Coupled with the adjoining open space in Winchester, the area makes up a natural and historic landscape second only to the Middlesex Fells. See Appendix A for an 1880 birds eye illustration of Medford center, an 1895 map of Middlesex County, and a 1905 birds eye illustration of the Boston area in which the hills of the Fells are visible in the background.

Medford joined other communities in the Victorian land preservation movement in greater Boston, and played a prominent role in the creation of the Middlesex Fells Reservation, and parklands along the Mystic River and Mystic Lakes. In doing so, residents recognized the threat of an expanded population and industry to these natural areas, and worked to ameliorate both for future generations. In

a broader sense, this activism was consistent with Medford's proud role in abolitionism, the Civil War and social movements of the late 19th century.

## Population Characteristics

Medford grew significantly in the late 1800s and early 1900s. The southern half of the City was developed intensively as a result of new railroads and highways. In the 20 years after World War I, much of the housing stock was built and the population grew by more than 60 percent. In 1950 the City reached its peak population of 66,113. Between 1950 and 1960 the population began to decline. This trend continued through the 1990s, but over the past 10 years there has been a modest net increase in population, with the largest increase occurring from 2009-2010 (see "Annual Population Size" chart below).

Centennial Population Size, 1890-2010

Year	Population	% change
2010	56,173	0.73%
2000	55,765	-2.86%
1990	57,407	-1.15%
1980	58,076	-9.82%
1970	64,397	-0.88%
1960	64,971	-1.73%
1950	66,113	4.80%
1940	63,083	5.64%
1930	59,714	52.96%
1920	39,038	68.63%
1910	23,150	26.89%
1900	18,244	64.67%
1890	11,079	

Annual Population Size, 2000-2010

Year	Population	% change
2010	56,173	1.07%
2009	55,578	-0.07%
2008	55,615	0.13%
2007	55,545	-0.14%
2006	55,621	-0.32%
2005	55,798	0.45%
2004	55,548	0.06%
2003	55,517	0.15%
2002	55,436	-0.45%



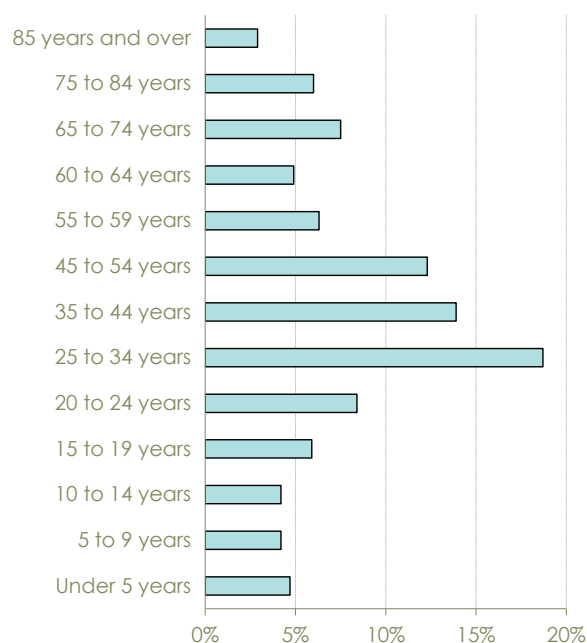
2001	55,684	-0.15%
2000	55,765	

<http://www.census.gov/>

Although population has been decreasing, the number of households in Medford increased between 1980 and 1990. This may be a result of smaller families, an increase in single-person households, and possibly an increase in the number of rental units in larger houses.

Maps B and B-1 show the population density of Medford by Block Group. Map B uses MassGIS data from the 2000 Census, while Map B-1 uses a MassGIS draft map generated from the 2010 Census. At the time of writing, the MassGIS map based on 2010 data had not yet been finalized. The two maps provide an interesting geographic perspective on the shifts in population density over the past decade. The population density along the south-eastern portion of the Mystic River and the Malden River jumped dramatically. Part of this increase can be attributed to the success of new large residential developments (River's Edge and Station Landing) sited near the Wellington Orange Line station.

Age Distribution of People in Medford  
2006-2010



Percent of Total Population

Source: American Community Survey, 2006-2010

The age distribution in Medford shows that a significant percentage of the population is between the ages of 25 and 54, with the largest age group being 25-34 years.

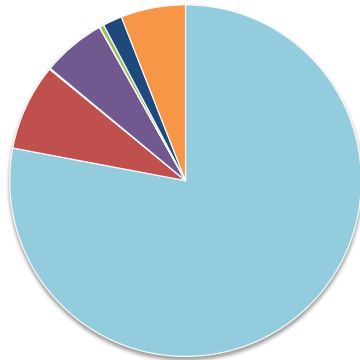
The 2008-2010 ACS 3-year survey estimate indicates that there are 2,643 persons 65 years and over living alone, and 6,346 households with people 65 years or over in Medford. The ACS 2006-2010 5-year survey counts the 65-plus population of Medford at 9,082. This accounts for roughly 16% of Medford's population.

Children under the age of 18 account for 16.8% of the entire population. Supplemental Map 4 reveals that in the majority of block groups in Medford, children under the age of 18 make up 15.01-30% of the population. A lower percentage of the under-18-year-olds is present in the block groups adjacent to Somerville, along the Mystic River at the I-93 crossing, and around the Wellington T station. There is no firm conclusion as to why this may be, but it is likely that a significant young-adult population (over the age of 18 but without children of their own) lives in proximity to Tufts University, as well as in the new young commuting-professional oriented rental apartments and condos in the commuter-focused high-density developments around the Wellington T station.

The non-institutionalized disabled population of Medford is 5,592 or approximately 10% of the total population. The majority of this group is 65 years or older (2008-2010 ACS).

Medford residents that identify themselves as White total 77.97% of the population. Blacks or African Americans are the largest minority group, followed by Persons of Hispanic Origin, which is closely followed by persons identifying as Asian (which includes Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese and Other Asian). People claiming two or more races were in four groups: White and Black or African American, White and American Indian & Alaska Native, White and Asian, Black or African American and American Indian & Alaska Native. The population of American Indian & Alaska Native was made up mostly of people identifying as from the Cherokee tribal grouping, but the category also includes Chippewa, Navajo and Sioux tribal groupings. Additionally, The Native Hawaiian & Other Pacific Islander percentage

in Medford is largely made up of "Other Pacific Islander," but the category also includes Native Hawaiian, Guamanian or Chamorro, and Samoan.



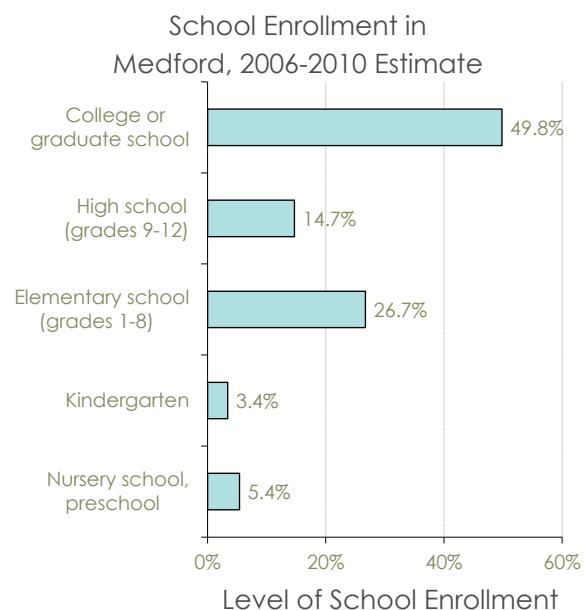
- White alone (not Hispanic) 77.97%
- Black or African American alone (not Hispanic) 7%
- American Indian and Alaska Native alone (not H) 0.09%
- Asian alone (not Hispanic) 5.84%
- Native Hawaiian and Other Pacific Islander along Hispanic) 0.03%
- Some Other Race Alone (not Hispanic) 0.4%
- Two or More Races (not Hispanic) 1.77%
- Persons of Hispanic Origin 5.94%

#### City of Medford, Race Statistics 2005-2009

Source: U.S. Department of Housing and Urban Development - 2005-2009 Comprehensive Housing Affordability Strategy (CHAS) data



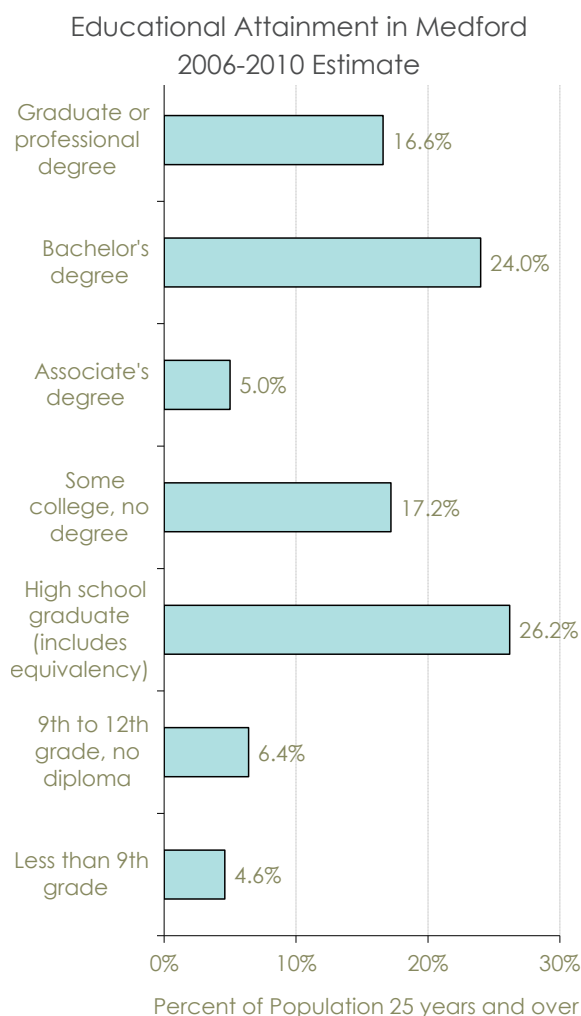
A large percentage of students enrolled in school in Medford are in college or graduate school. This is likely to be at least in part due to the presence of Tufts University, which lies partly in Medford and partly in neighboring Somerville. This institution creates a population of undergraduate and graduate students, and also provides educational, recreational and cultural opportunities to the Medford/Somerville area. There is also a high number of students enrolled in elementary school - more than are currently enrolled in high school. This could either mean that in the past Medford has seen families leave the City before their children reach high school, or that Medford has a new population boom of families with young children who will have to be accommodated in Medford's high school in upcoming years.



Source: American Community Survey, 2006-

2010

Educational attainment in Medford is fairly consistent with the Massachusetts average. Of the total Massachusetts population 25 years and over, 16.4% had attained a graduate or professional degree; 21.9% had a bachelor's degree; 7.6% had an associate's degree 16.0% had attended some college, but had no degree; 26.7% had graduated from high school, 6.4% had attended through 9th to 12th grade, but not received a diploma; and 4.9% had attended school through "less than 9th grade" (2006-2010 American Community Survey 5-Year Estimates).



Source: American Community Survey, 2006-2010

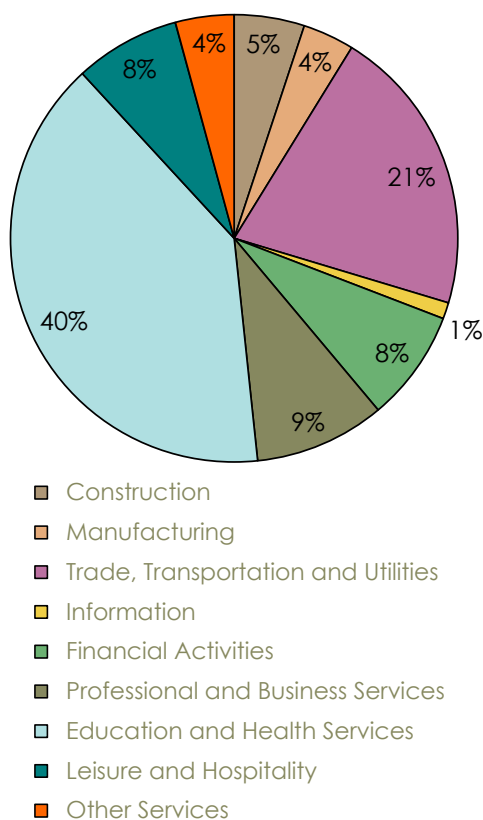
### Income Distribution

The 2006-2010 American Community Survey shows that the median household income

in Medford was \$70,102, the median family income in Medford was \$80,839, and the per-capital income was \$34,101 (all in 2010 inflation-adjusted dollars). Additional income information is shown on the map sheet "Supplementary Map 3," which shows median household income, poverty rates, and moderate, low, and very low income population percentages by census tract. These maps highlight that the majority of Medford's households earn between \$37,719 and \$91,449, but there are families and households across Medford that fall into the Moderate, Low and Very-Low income categories.

The City is committed to providing open space resources to people of all income levels, but where possible, specific park improvements will be targeted to lower income areas. The City views pedestrian accessibility to parks as an important piece of the equation in areas of lower income. Open space resources need to be accessible to people who may have limited access to private outdoor spaces or cars.

Average Monthly Employment  
by Industry Sector in Medford, MA (2011 Q2)



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Massachusetts Executive Office of Labor & Workforce Development

Labor Force And Unemployment Rate Data  
2000 - 2011

Fiscal Year	Labor Force	Number Employed	Number Unemployed	Rate
2001	31,017	30,070	947	3.1
2002	32,639	31,151	1,488	4.6
2003	30,000	28,534	1,466	4.9
2004	29,784	28,787	997	3.3
2005	29,428	28,194	1,234	4.2
2006	29,579	28,310	1,269	4.3
2007	30,489	29,329	1,160	3.8
2008	30,616	28,944	1,672	5.5
2009	30,880	28,514	2,366	7.7
2010	30,997	28,696	2,301	7.4
2011	30,336	28,264	2,072	6.8

Massachusetts Department of Revenue,  
Division of Local Services

### Employment Characteristics

Employment characteristics provide a picture of the types of jobs that exist in Medford. The largest portion of jobs in Medford is currently in the Education and Health Services sector, which accounts for 40%. The second-largest sector is Trade, Transportation and Utilities, with 21% of the jobs in Medford. The presence of Tufts University no doubt has a major impact on the large presence of Education Services in Medford's economy. The data presented here is based on the division of job types according to the North American Industry Classification System.

Unemployment in Medford was rising through 2009, but 2010 and 2011 saw the unemployment rate drop. From 2008-2009 the largest increase in the unemployment rate over the past 10 years occurred. This coincided with a national rise in unemployment as the United States and many other countries entered a recession at the end of 2007. Medford also suffered when the "tech bubble" ended in 2001, as the City had acted to attract technology and internet-based companies into developments such as Telecom City, at the site that is now River's Edge, on the Malden River.

### Growth and Development Patterns

Parcel Distribution Fiscal Year 2012  
(does not include open space lands)

Parcel Type	Number of Parcels	Percent of Total
Single Family	7,844	46.26%
Multi Family	4,551	26.84%
Condos	2,839	16.74%
Apartments	121	0.71%
Misc. Residential	20	0.12%
Vacant Land	786	4.63%
Commercial	617	3.64%
Industrial	75	0.44%
Other Use (includes Mixed Use)	94	0.55%
Total	16,957	100%

Massachusetts Department of Revenue |  
Division of Local Services

### Environmental Justice Population

In 2000, the Commonwealth of Massachusetts began developing an Environmental Justice Policy, complete with additional resources and measurable targets, to be overseen by a senior officer, the Director of Environmental Justice and Brownfields. The policy became official in 2002 and environmental justice was clearly defined as being:

*"based on the principle that all people have a right to be protected from environmental pollution and to live in and enjoy a clean and healthful environment."*

Environmental Justice is the equal protection and meaningful involvement of all people with respect to the development, implementation and enforcement of environmental laws, regulations and policies and the equitable distribution of environmental benefits. (Commonwealth of Massachusetts 2002:2)

The Commonwealth went further, specifying that Environmental Justice Populations:

*"are those segments of the population that Executive Office of Environmental Affairs has determined to be most at risk of being unaware of or unable to participate in environmental decision-making or to gain access to state environmental resources."*

They are defined as neighborhoods (U.S. Census Bureau census block groups) that



meet one or more of the following criteria:

- The median annual household income is at or below 65 percent of the statewide median income for Massachusetts
- 25 percent of the residents are minority
- 25 percent of the residents are foreign born
- 25 percent of the residents are lacking English language proficiency. (Commonwealth of Massachusetts 2002:5)

MASSGIS, the Commonwealth's Geographic Information Services, mapped all Environmental Justice Populations in the Commonwealth, based on 2000 U.S. Census data. The policy acknowledged that Environmental Justice Populations make up 5% of the Commonwealth's land area, and encompass about 29% of its population. Unsurprisingly: "many of these Environmental Justice Populations are located in densely populated urban neighborhoods, in and around the state's oldest industrial sites, while some are located in suburban and rural communities." (Commonwealth of Massachusetts 2002:5).

Medford has areas within the City that are home to populations meeting one or two of the environmental justice criteria, including foreign-born, minority population and income. Most of these areas are in the southern half of Medford, meaning that many of these environmental justice communities are along or are proximate to the Mystic river and Malden river corridors. See Map 2 "Environmental Justice" for additional details.

## Development

Of the 8.22 square miles of land in Medford, 26 percent is owned by the DCR. City-owned open space accounts for 8 percent. The largest portion of the remaining developed land is residential (single family, multi-family, and condominium).

Medford has been nearly fully developed for many years and only minor changes have occurred. Over recent years the largest changes have been in the Wellington area. Large-scale retail businesses have located in the area, new office buildings and mixed-use

developments were built near the Wellington MBTA station, both along the Malden River and on the Fellsway. The Station Landing development, located on the east side of the Fellsway, borders on DCR riverfront parkland and augments it with its own landscaped open space. The Wellington office development, located on the Malden River just north of the Woods Bridge on Revere Beach Parkway (Route 16), contributes permanent open space to the riverfront system by providing landscaped, lighted paths along the Malden River. This open space is privately owned but secured permanently through the state's Chapter 91 program, which regulates building on filled tidelands. A fourth Wellington building of residential units is intended in this development, but for now a temporary open space currently exists where the building will be. This fourth building will include construction of a publicly accessible historic sculpture garden connecting to the Malden River path system.

Immediately to the north of the Wellington development is River's Edge, which has transformed an area of older industrial properties in Medford into residential and office buildings surrounded by 10 acres of parkland. This development site was originally conceived of as "Telecom City" - a "state-of-the-art telecommunications center." The decline of the telecommunications industry halted this original vision and a new proposal evolved, with three main phases of construction starting in Medford and spreading into Malden and Everett. The three cities joined together in the Mystic Valley Development Commission (MVDC) to bring new development into the area. The new development has a completed residential apartment building and a completed Leadership in Energy and Environmental Design (LEED) Gold certified office building in an extensive passive park along the Malden River, which is open to the public. Work is ongoing to prepare the Phase I site for two additional office buildings and a parking structure, as well as a public athletic field. The open space is protected under the development's Chapter 91 license. The MVDC and the River's Edge developer (Preotle Lane Associates) are collaborating further to create the Wellington Greenway - a riverfront pedestrian path along the Medford River that will connect the River's Edge development with the Wellington MBTA

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station, the Mystic River Reservation, and the Station Landing mixed-use development. In 2009 the Massachusetts Environmental Trust awarded a \$150,000 grant to this effort.

A new bridge over the Malden River (north of the Woods Bridge) is planned, connecting this open space to similar passive and active space to be built in a subsequent phase along the Everett side of the Malden River.

Medford's zoning is consistent with the City's policy that supports development in appropriate areas, like Wellington, and protects the community fabric in existing neighborhoods. The City's policy also emphasizes the importance of community benefits from development, including open space that serves both employees and City residents, as in the cases described above. In this context, developer-assisted open space both mitigates the localized impacts of development and helps to integrate business into the larger community. Thus, in the cases of development in the Wellington area, businesses in the new buildings both enjoy the benefits of location along the scenic riverfront and proximity to public transportation, and contribute to improving the riverfront park system and accessibility of resources for all. These examples of well-coordinated development show that developer-provided open space has direct benefits both for employees and for the public.

## **Transportation**

Medford is well served by the regional highway system and the Massachusetts Bay Transportation Authority (MBTA). Medford Square is easily accessible from I-93 and east/west arterials such as Route 60 and Route 16. Route 38 (Mystic Avenue) also provides good north-south access to neighboring towns. The MBTA's Orange Line provides direct transit service to Boston from the Wellington area and has received considerable transit-centered development since its completion in the 1970s. The MBTA has supported efforts for a Wellington Greenway connecting to the Orange Line station. In addition, West Medford Station is served by the Lowell Commuter Rail line to North Station. Various local and express buses also serve the City as well as The Ride, an on-call paratransit service that many elders use.

Two additional transit projects may eventually improve service to Medford: The Green Line Extension and the Urban Ring. The MBTA and Massachusetts Department of Transportation (MassDOT) are collaborating on a project to extend the existing MBTA Green Line train route north from its current terminus at Lechmere Station. The new route would run through Somerville into Medford with stops servicing Medford at Ball Square and Tufts University at College Avenue. A further extension of the Green Line to Route 16 (Mystic Valley Parkway) has also been promised by the State. This would be connected to Medford Square and the Condon Shell by walking and biking paths along the Mystic River. The Green Line extension project will provide additional access to Boston and provide good access to many areas of Somerville. As of the writing of this document, MassDOT's anticipated schedule slates the completion of the project some time between 2018 and 2020. The MBTA is also collaborating with MassDOT and the Boston Region Metropolitan Planning Organization (MPO) on the "Urban Ring" - a proposed bus rapid transit system to connect the arms of the main subway lines, including connecting Wellington Station with points eastward (Everett, Chelsea and East Boston) and connecting Sullivan Square directly to locations throughout mid-Somerville and Cambridge. At present, this project has been seriously delayed by funding challenges, as the Boston Region MPO was unable to allocate any funding for the project in its most recent 20 year Regional Transportation Plan. This disqualifies the project for any federal transportation funding. See Appendix A for current maps of the proposed Green Line extension and the Urban Ring project.

## **Water and Sewer**

Water and sewer service is provided to the entire City by the Metropolitan Water Resource Authority (MWRA). The MWRA also owns 41 acres of land north of Wrights Pond that is part of the regional water system. Although this land is inaccessible for recreational purposes it does provide additional green space and wildlife habitat area within the City limits.

# 04. environmental inventory



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## 04. Environmental Inventory & Analysis

### Geology, Soils & Topography

Topographically the southern and central quarters of the City of Medford are characterized by relatively low flatlands. North of the Central Business District, the topography graduates into a hilly, irregular terrain extending across the Middlesex Fells Reservation eastward to the Malden River Basin. Overall elevations range from less than 10 feet above mean sea level to 190 feet plus throughout the City.

Both the land bordering the southeastern section of the Mystic River Basin and the hilly terrain of North Medford have topographical characteristics that limit development. Natural and man-made shifts in the course of the river have left a substantial amount of land rated with poor structural bearing capacity. North Medford is limited in development because of its many rock outcroppings and ledge deposits. With the exception of the high ledge outcrops at Hastings Park, Medford's other parks consist of level or gently sloping sites with topography and bearing capacities suitable for most recreational facilities.

The bedrock geology of Medford divides north/south along a line from the east boundary of Medford, running parallel to the Fellsway West, then south to Medford Square, and then west along the Mystic River. The northern section contains harder rocks, being primarily Lynn volcanic complex, Dedham granodiorite and Newburyport quartz diorite. The rocks to the south are the softer Cambridge slate. The Rand Street area is granite with pink to purple volcanic intrusions.

The surficial geology consists of a series of ground and recessional moraines or glacial deposits in the Middlesex Fells and Rand Street area. The area where the Mystic and Malden Rivers intersect is an outwash plain consisting chiefly of glacial deposits of sand and gravel. The hills of Medford are primarily drumlins, long narrow smoothly rounded hills of unstratified glacial drift.

As mentioned earlier, most of Medford's parks are located on relatively flat, well-drained sites. Construction suitability for the expansion of athletic facilities could be rated moderate to good on an overall basis. The little parkland

that is too steep and rocky for recreational development is actually an asset to the City's parks by giving character and texture as unique natural features; Hastings Park is a good example of this type of open space.

### Soils

The soils of Medford were originally laid down by glacial drift deposits and weathered to form present soil types. However, given that the City has been extensively developed, much of its area is covered by Urban Land, which is defined by the U.S. Soil Conservation Service as streets, parking lots, buildings and other impermeable structures.

According to the Middlesex County Interim Soil Survey Report, published in March 1991, Merrimac, Scio, and Charlton-Hollis Urban Land Complexes dominate the western, central and southern parts of the City. While Merrimac soils have few limitations for most uses, the major limitations for Scio soils are related to wetness, while those for Canton and Charlton series are related to stoniness and slope. Udorthents and Udorthents with a wet substratum are also found in these areas. These soils consist of areas from which the soil has been excavated and/or deposited due to construction operations. Original soils are no longer recognizable and are no longer a major factor in determining limitations of capability of the land.

North Medford is characterized by Charlton-Hollis Urban Land Complex, with areas of Freetown Muck and Hinckley Loamy Sand; Charlton-Hollis soils are limited by slope and stoniness, the Mucks are wet soils and have marsh vegetation such as cattails, rushes and other wetland herbaceous plants.

The Middlesex Fells area is covered by Hollis or Charlton-Hollis Rock Outcrop Complexes in combination with areas of Swansea and Freetown Mucks in the wetter areas.

### Landscape Character

The landscape of Medford is in three zones: the north is rough, stony, hilly land with poorly drained swampy areas between the hills; the central area is an outwash plain, heavily built upon and urbanized, bisected by the previously tidal Mystic River, such that the banks retain their poorly drained features;



and the south is an area of softer rocks, dotted with drumlins.

In a November 1, 2000 public meeting held as part of the development of the 2001 Open Space and Recreation Plan, features of the landscape that were cited as important to Medford residents were: the views from the drumlins in the Brooks Estate, Oak Grove Cemetery, Middlesex Fells and Hastings Park; the woods in the Fells and Brooks Estate and around Wrights Pond; Medford's many mature trees along its streets and in its parks; and the water bodies around the City, including the Mystic River, Mystic Lakes, Wrights Pond, and the pond in the Brooks Estate. The 2001 Plan also stated that the large expanse of woods in the Middlesex Fells and the long riverfront corridor on the Mystic River are the two most striking natural elements giving Medford character, and that the trees, yards, and gardens along the City's many residential streets also provide a pleasing landscape punctuated by the City's many neighborhood parks.

In the research and public process conducted as part of the 2011 update to the Open Space and Recreation plan, it became clear that these elements are still highlights of Medford's character today, and are still valued and heavily used by Medford's residents. Because Medford's most valued natural assets are protected either by the State (DCR-owned lands), the City (City parks), or public entities (the Brooks Estate), these areas have been preserved and maintained through the years. The water bodies themselves have been impaired for decades due to the area's shipping, manufacturing and industrial history, but in the last 20 years, the region has become aware of the great potential of its waterways, and cleanup and monitoring efforts have been under way.

The progress made on the Mystic and Malden Rivers will be discussed in more detail in the following "Water Resources" section, but it is important to note that great strides have been made in reclaiming and revitalizing the riverfront areas of Medford. Of particular note are the new developments along the Malden River that are transforming it into a scenic, environmental and cultural resource that can now be proudly listed as one of Medford's most dramatic improvements over the past 10

years. Creating connections to and between the riverfront open spaces of the Malden and Mystic has also become a priority, and is one of the key goals of this plan.

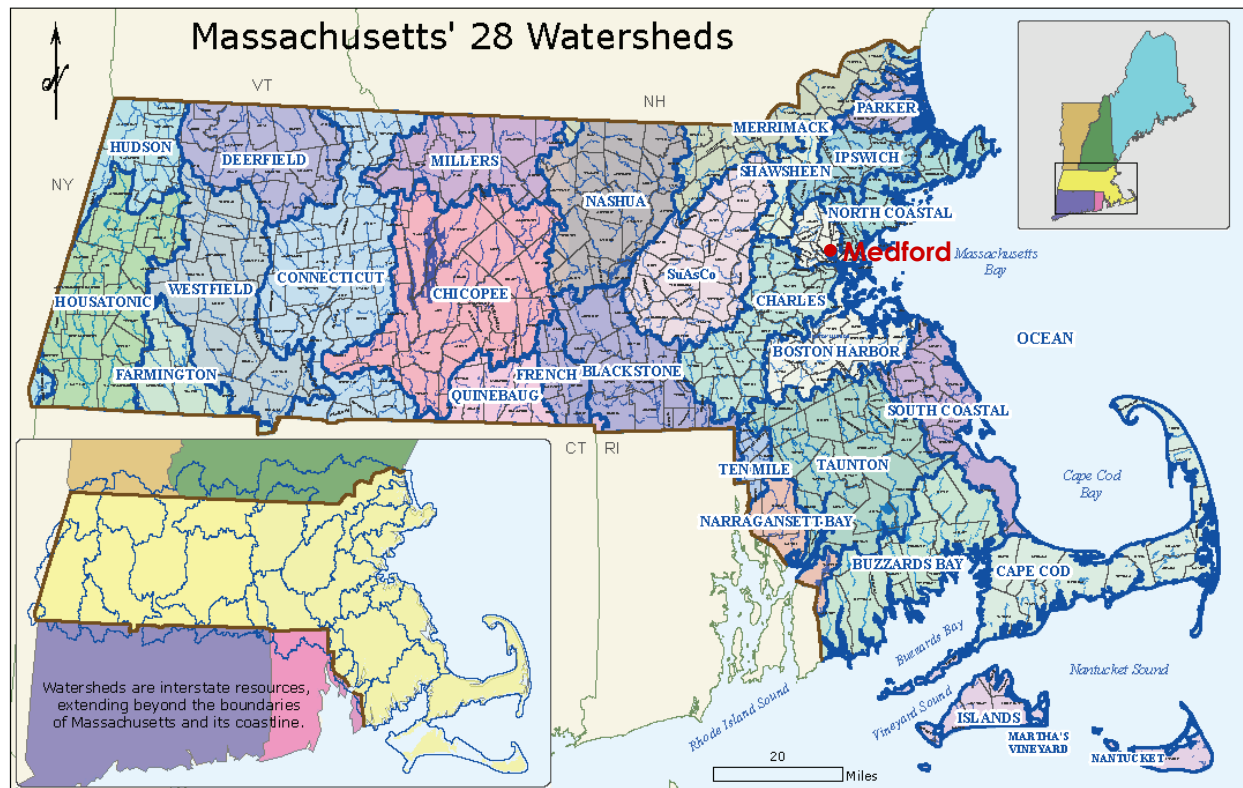
Additional discussion of Medford's scenic landscapes, unusual geologic features, cultural and historic areas, and unique environments can be found in the "Scenic Resources and Unique Environments" subsection, below.

## Water Resources

Rivers provide key open space and natural resources, and the increasing attention given to these resources in Massachusetts is reflected in the 1997 Rivers Protection Act, which subjects development within 200 feet of rivers to review to minimize impacts and preserve resources. Riverfront open space is an important means to accomplish this goal.

The Mystic River, which flows from the Mystic Lakes southeastward to its confluence with the Malden River at Wellington, crosses through the City and is the central feature of Medford. Medford is located entirely within the boundaries of the Mystic River Watershed, which is a sub-watershed of the Boston Harbor Watershed. Originally estuarine in character and tidal as far as Medford Square, the river was altered by a gate and a series of weirs in 1900 and dammed between 1967 and 1976. Despite these major changes, it remains an extensive body of water. The northern riverbank, with the exception of an area in the vicinity of Medford Square, is devoted to parkland and is part of the Mystic River Reservation. This provides area residents with opportunities for walking, boating, fishing and picnicking. The southern riverbank on the other hand has mostly been developed, and areas that are not developed are largely inaccessible to the public.

Since 2006 the EPA has assessed and publicized the water quality of the Mystic River using a basic grading system. This system takes monthly water quality monitoring data and applies an algorithm to calculate the percentage of days that bacteria levels met MassDEP water quality standards for swimming (235 E.coli/100ml of water) and boating (1260 E. coli/100ml of water). These percentages are then translated into the following grades:



Map from the Executive Office of Energy & Environmental Affairs  
[http://www.mass.gov/Eoeea/docs/eea/water/watersheds\\_map.pdf](http://www.mass.gov/Eoeea/docs/eea/water/watersheds_map.pdf)

See Map 1 "Regional Context Map" for a closer view of the Mystic River Watershed.

- A meets swimming & boating standards nearly all of the time
- B meets swimming & boating standards most of the time
- C meets swimming standards some of the time, and boating standards most of the time
- D meets swimming and boating standards some of the time
- F fails swimming and boating standards most of the time

In 2010, the Mystic River received a grade of D-, the lowest grade it has received since the grading system was implemented. In 2010 the level of bacteria in the Mystic was low enough for safe swimming only 28% of the time, and for safe boating only 70% of the time. The fall in grade from previous years, despite great strides taken in identifying and eliminating sources of contamination, could partially be due to the great number of large precipitation events in 2010, which resulted in more discharge from Combined

Sewer Overflows (CSOs) and Sanitary Sewer Overflows (SSOs).

#### Mystic River Watershed Water Quality Grades 2006-2010

2006	D
2007	D
2008	C-
2009	C-
2010	D-

The 2010 low grade should not overshadow the fact that in recent years the Environmental Protection Agency (EPA) and MassDEP, working with their local partners, have succeeded in eliminating several illicit sewage discharge points, which has prevented over 12,000 gallons/day of sewage from entering the Mystic River watershed through storm drains. The Massachusetts Water Resource Authority (MWRA) will also be undertaking projects on Alewife Brook - a major tributary of the Mystic that flows through Cambridge and Somerville - to eliminate 450 million

gallons of CSO by 2015. Local groups including the Mystic River Watershed Association, Groundwork Somerville, Friends of Alewife Reservation, the Mystic River municipalities, MAPC, and others, as well as the DCR have all been heavily involved in the restoration of the river's water quality.

The Mystic River was one of the most frequently cited open space resources in the November 2000 public meeting on this Open Space Plan. Completing the riverfront parkland and improving access to this resource is discussed in the Action Plan Section of this document.

The Malden River runs into the Mystic River at Wellington in the southeastern corner of the City. This area of reclaimed tidal marsh is zoned for office, industrial and commercial uses and is considered to be one of the City's few potential growth areas. This area has changed considerably since the 2001 Open Space & Recreation Plan, as the first phase of the River's Edge development is already partially completed. This development has transformed blighted industrial waterfront land into luxury apartments, environmentally friendly office buildings, and public passive open space that includes a restored wetland area for habitat and water quality improvement. Planned improvements at the existing Wellington office park (just south of River's Edge) include an additional office building and a sculpture garden with historic Medford themes adjacent to the waterfront open space provided by the developer. The Wellington Greenway project, already in its beginning phases, will connect River's Edge, Wellington Office Park, Wellington MBTA station and the Mystic River Reservation.

The Mystic Lakes, two extensive bodies of water located at the headwaters of the Mystic River, provide significant recreational opportunities, including swimming at Sandy Beach (on DCR land, just over the Winchester border), and boating at the Medford Boat Club, as well as natural ponding areas. These fall into a potential aquifer recharge area and are under the protection of the DCR.

Wrights Pond is a significant City-owned resource, which is contiguous with the Middlesex Fells Reservation. This area is home to the City beach and is used extensively for boating, swimming and sunbathing during the

summer months. Surrounding wetlands also host a variety of interesting flora and fauna. The path around this pond is highly valued by residents who use it and was cited by many who attended the November 2000 public meeting. (See Map 3 – Water Resources). The swimming beach facilities at Wrights Pond have been improved by the City in recent years though it suffers from high nutrient loads generated from off-leash dog usage.

South Reservoir, though partially located within the City of Medford, is owned by the Town of Winchester and is utilized in its water supply system. It is restricted from public use.

Quarter Mile Pond is part of a wetland area that encompasses all of the Fells north of Wrights Pond, east of I-93, and west of Woodland Road to the Medford City boundary. The pond, which extends beyond the City limits, is generally in good condition.

Brooks Pond is located on the grounds of the Brooks Estate. The pond had been overgrown by the mid-1990s but wetlands restoration undertaken by the City in cooperation with the Brooks Estate Preservation Association in 1997 has improved access to this resource significantly. Funds for the improvements came from both the City and the Massachusetts Department of Environmental Management (DEM) Lakes and Ponds program. In 2012, the Medford-Brooks Estate Land Trust (M-BELT) rebuilt the Brooks Pond Boardwalk. This pond remains a popular resource for the City and is a key feature in the Brooks Estate Master Plan.

The City also contains a number of smaller brooks and streams. These include Straight Gully Brook, Meetinghouse Brook, Rams Head Brook and Whittemore Brook, which are all located in the Middlesex Fells. Numerous residents attending the 2000 public meeting mentioned the Whittemore Brook off Grove Street as a valued resource that they enjoy walking along.

Additional wetlands include ponding areas such as Hemlock Pool in the Fells in the northeast corner of Medford; Fulton Puddle, just off Fulton Spring Road; and Rand Street, which is a rugged area of small ponds and marshes. The Middlesex Fells is an extensive area containing many small ponds and

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swamps. Also of ecological importance are the several vernal pools that can be found through out The Fells and also near Brooks Pond and a potential pool at Carr Park. These special resources offer unique habitat and offer a depth to the biodiversity of Medford.

Former wetlands, which have in the past played a significant part in Medford's hydrologic systems, include Playstead Brook, Little Creek, Clay Pit, Winter Brook and Two Penny Brook.

The City's drinking water is supplied by the Massachusetts Water Resources Authority (MWRA). The MWRA pumps water to 42 Massachusetts communities from three sources in western Massachusetts - the Quabbin Reservoir, the Ware River, and the Wachusett Reservoir. The MWRA and DCR's Office of Watershed Management have worked together to protect these resources, and have been operating under DEP-approved watershed protection plans since 1991. In 2002, DEP conducted a Source Water Assessment Program (SWAP) Report on the system and found that it has continued to operate at high standards, and is able to provide safe drinking water by managing potential sources of contamination and conducting thorough testing and treatment of the water supply.

Within the three contributing watersheds the main threats to water quality identified by the SWAP Report are: microbial contaminants from birds and aquatic animals; manure management, fertilizers & pesticides utilized for agriculture; metals, nutrients, fuels and hazardous materials associated with transportation corridors; herbicides used in the maintenance of utility line right-of-ways; various moderate threats from residential land uses such as septic systems, storage tanks, lawn care, and household hazardous waste. DCR's ongoing management practices include methods to address each of these threats. More information on the MWRA system and DCR's watershed protection efforts can be found in the Massachusetts DEP 2002 SWAP Report.

The reservoirs in the Middlesex Fells (including Spot Pond) are backup reservoirs intended to support the MWRA system only in case of emergency. These water bodies are also protected by land use and activity

restrictions, but these restrictions are less stringent than those around the three primary drinking-water-resource watersheds. The Fells permit walking and running, mountain biking, horseback riding, cross-country skiing and snowshoeing, fishing, and canoeing/kayaking (in on-location rental boats only). As can be seen on Map 6 "Water Resources," the surface water protection areas form a buffer around the reservoirs, but a large area of the Middlesex Fells remains outside of the boundaries of the protection areas. The Middlesex Fells reservoirs are the only areas within Medford classified as Surface Water Protection Areas. There are no Zone I or Zone II recharge areas in Medford - the closest Zone II areas are on the opposite side of neighboring Winchester, extending into Woburn.

## **Vegetation | Forestry**

Medford is located in an area where the flora of the Northern Forest (spruce, pine, beech, white birch, hard maple, balsam fir and hemlock) blends with the flora of the Central Forest (oak, hickory, yellow poplar, chestnut, sweet gum, yellow pine, and red cedar). However, the City has been extensively developed and the remaining natural areas are under the jurisdiction of the DCR. The predominant tree species here are red, white, and black oak; red and white pine; and white, yellow and black birch with an understory of black huckleberry and maple leaf viburnum among others. Wetland areas are characterized by red maple and sweet pepper bush, while highbush blueberry, maleberry, choke cherry, and swamp azalea are also common.

According to the 1990 USDA Plant Hardiness Zone Map (the most recent map published by the USDA) the City of Medford lies in hardiness zone 6a. There are numerous tree species that are appropriate for urban plantings in zones 6 or colder. It is important to note that site-specific soil and light conditions as well as any overhead or underground utility limitations should be assessed to determine the appropriate tree species for a particular site.

Vegetation is a key element in the design of open space. In Riverbend Park along the Mystic River, a variety of natural wet meadow,



dry meadow, and slope communities are being re-established and nurtured. The design uses canopy-providing trees, woody understory, herbaceous understory, and edge species to create an environment that attractive for people using the park's paths and also provides natural habitat.

The urban forest of Medford is a critical environmental, economic, and health asset to the City. The City Forestry Division is directed by the City Tree Warden in the maintenance of existing trees, planting of new trees, removal of dead or dangerous trees, and assisting with post-storm-event tree litter cleanup. The Forestry Division is also responsible for maintaining the City's status as a "Tree City USA," determined by the National Arbor Day Foundation. A comprehensive street tree inventory effort received funding from Mass Relief (DCR) in 2007, though an update of this plan and an urban forest management plan would assist Medford greatly in establishing and achieving key goals for their urban forest.

In recent years the impact of significant populations of exotic invasive plant species on the open and natural spaces of Medford and the region has become a key issue. These plants thrive in disturbed soil conditions, which are common throughout urbanized areas and the heavily used natural spaces that serve these densely populated areas. In the woodlands and woodland margins species, there are Japanese knotweed, Phragmites, Norway maple, Oriental bittersweet, and Garlic mustard. Water Chestnuts are of particular concern in the Mystic River, and several local groups (including Groundwork Somerville, Mystic River Watershed Association, Friends of the Mystic River, and the Mystic River Yacht Club) have collaborated with state and local officials and the MWRA in efforts to control the spread of these plants through both hand-pulling and mechanized harvesting.

The Asian longhorned beetle (ALB) is an invasive wood-boring insect that attacks hardwood trees, including maple, birch and elm. The only reported infestation of ALB thus far in Boston was in six trees at the Faulkner Hospital in Jamaica Plain. The trees were cleared and a 1.5-mile radius Restricted Area has been established around the site. No wood material of any type may be removed

from the restricted area, with the hopes that this will prevent the spread of the beetle to other areas of Boston.

The spread of ALB would cause negative impacts to the maple sugaring, nursery, tourism and forest product industries of Massachusetts, and would seriously threaten our state's forest, park and street trees. The Division of Crop and Pest Services, through the Cooperative Agricultural Pest Survey (CAPS) Program, provides public outreach and screening of potential Asian longhorned beetle sightings in order to prevent the further spread of this invasive pest.

Species that have been noted to host the ALB include Maple, boxelder; Norway, red, silver, sugar, sycamore maple, and boxelder especially favored; Amur maple less favored; Japanese maple seldom attacked; Aesculus, Horsechestnut, buckeye; Betula, Birch; Salix, Willow; Ulmus, Elm, American, Siberian.

## Fisheries and Wildlife

The City of Medford owns very little undeveloped land apart from its parks. These parks, with the exception of Wrights Pond and the Brooks Estate, are urban in nature and unlikely to support a great variety of wildlife. However, lands controlled by the DCR, (i.e. the Middlesex Fells, the Mystic Lakes, and Mystic River Reservation, as well as the Brooks Estate, and the MWRA land), constitute fairly substantial natural areas and support a variety of flora and fauna. Deer and otter have been sighted in the Middlesex Fells area, and weasels, minks, raccoons, opossums, skunks, squirrels, chipmunks, voles, moles, and field mice are common. Salamanders, turtles, and frogs are abundant in the area, which also boasts a wide variety of butterflies. The DCR lands host a considerable variety of songbirds, in addition to some waterfowl and a resident geese population. Current fish populations in the Mystic Lakes and the Mystic River include alewife, american eel, killifish, sunfish, blueback herring, shiner, bullhead, perch, pickerel, stickleback, darter, sucker, mummichog, and pumpkinseed.

According to information supplied by the Massachusetts National Heritage Program, the City of Medford has no known rare or endangered species of plant or animal.

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## **Wildlife corridors**

Medford does not contain Wildlife Management Areas designated by the Massachusetts Division of Fisheries and Wildlife. Areas in the Fells as well as a link between the Brooks Estate and the Fells have the potential with proper management to become successful wildlife corridors. Current fragmented conditions along the Mystic River prohibit continuous wildlife corridors but several areas within McDonald Park are being actively managed from a vegetation and pedestrian perspective to create wildlife habitat areas.

## **Scenic Landscapes/Geological Features**

Medford, being a highly urbanized City, has little undeveloped land apart from its own parks and the lands controlled by the DCR. The DCR properties are a major asset to the City. With over 1,200 acres of DCR-owned open spaces and 28 City-owned parks, Medford attracts residents who enjoy living in the City close to extensive open space. Open space remains a significant factor in the decision to move to Medford.

The Mystic River, originating in the Mystic Lakes, is the City's central and most attractive feature. Flanked by DCR parkland on much of its northern bank, the river provides opportunities for boating and fishing. Most of the riverbank is open and accessible except in the Medford Square area. At Medford Square, historic development patterns created buildings that back up to the river; while this gives it scenic character, it also poses practical problems of access. In the winter of 2010/2011 the City of Medford completed a road realignment project that moved the former Ring Road (now named Clippership Drive) around Medford Square away from the river, creating a new riverfront open space called Clippership Park. The City hopes to continue to revitalize the area with mixed-use buildings facing across the new boulevard-style drive and Clippership park looking out toward the Mystic River. Continuing to pursue redevelopment initiatives like Clippership Drive and Clippership Park would bring the river's resources into Medford Square, enriching this dense urban nexus.

The DCR-owned Middlesex Fells is an attractive wooded area of rocky outcrops, streams

and wetland areas. The Fells is a regionally significant open space that provides recreational opportunities for residents of Medford as well as residents from nearby towns.

The Fellsway and the Mystic Valley Parkway - along the Middlesex Fells and the Mystic River, respectively - are scenic drives that provide easy vehicular access to the recreational opportunities in Medford's two most significant natural areas. They have also become busy thoroughways heavily used by area commuters which now impede pedestrian and bicycle access across these roads to the Fells and the Mystic River Reservation lands.

As noted above under Water Resources section, the Mystic Lakes and several ponds in the City are highly prized for their scenic beauty. Wright's Pond also has a well-used walking path along its wooded shoreline. The Mystic River has only recently been recognized for its scenic and wildlife potential, as new developments along its banks have improved its environmental and aesthetic condition and created public access.

Outcrops and drumlins as found in the Fells, Brooks Estate, and Hastings Park also provide scenic character and distant views, enhancing the landscape and giving it interest.

## **Cultural, Archeological and Historic Areas**

The City of Medford has a rich heritage and is home to many historic sites and buildings, some of which are listed on the National and State Historic Registers, but many others have local recognition. (See Map 5 – Unique Features).

The most famous of these is the Isaac Royall House, which is a fine example of Mid-Georgian architecture. Located at 15 George Street in Medford, this originated as a farm house owned by governor John Usher, but it was drastically altered and rebuilt after it became the property of Isaac Royall in 1732. Authors of **"Medford on the Mystic,"** Carl and Alan Seaburg, have stated that "in 1750 it (the Royall House) could honestly be termed the grandest house in North America". The house is currently under the stewardship of the Royall

House Association and is open to the public during the summer months.

Similarly, the Peter Tufts House, located at 350 Riverside Avenue, was built between 1677 and 1680. This house is considered to be transitional in style, with both Medieval and Georgian features.

A third property, of particular note and recent activity, is the Brooks Estate, located at 275 Grove Street. The approximately 50-acre site is the remnant of the historic Brooks property, which originally consisted of 400 acres along and to the east of the Mystic Lakes. The property was used by the Brooks family from about 1660 to 1939, and reached its apogee as a gentleman's country estate from about 1850 to the 1930s. The current property includes the 9-acre Brooks Pond, about 40 acres of woodlands, some field areas, and the "Historic Core." This core area is the location of the Shepherd Brooks Manor and its Carriage House that were built in 1880 to a design by Peabody and Stearns. A much larger house, Point of Rocks, was designed by Calvert Vaux and built in 1859; it was demolished in 1946. The Shepherd Brooks Manor was used for veterans' housing, a nursing home and a group home in the period between 1946 and the early 1980s. The property is owned by the City of Medford and managed by the Medford-Brooks Estate Land Trust, Inc. (M-BELT), a community-based membership non-profit, under an agreement with the City of Medford. It is on the National Register of Historic Places and is protected by a permanent Conservation and Preservation Restriction, granted in 1998. The Conservation and Preservation Restriction includes the Massachusetts Historical Commission, Trustees of Reservations and DCR as Grantees.

The Oak Grove Cemetery started with a 12-acre parcel purchased by the City of Medford from the Brooks family in 1853 for use as a cemetery. The City later purchased an additional 22 acres in 1875. Today, the Oak Grove Cemetery remains a solemn site of repose and reflection. Its rocky rises provide scenic vistas, and the historic graves and vegetation provide a window into the character of old Medford.

One of the important actions of the 1993 Open Space Plan was to begin the development of this property as a recreational resource. Since

1993, considerable progress has been made in this effort. Major highlights include: cleaning and restoring the open space areas, adding a boardwalk to Brooks Pond, trail and woodland rehabilitation efforts, wetlands restorations, and general maintenance. A Landscape and Vegetation Management Plan was completed in 2000. Historic preservation efforts focused on the restoration of the Shepherd Brooks Manor. Work has included: a new slate and copper roof, gutters and downspouts, interior repairs (plumbing, heating, etc.), security system, soffit repairs, and the creation of a new ADA-accessible entrance. A master plan for the Historic Core landscape has been created and Phase I will enter construction in mid-2011.

Funding for much of this work has come from state grants, CDBG and City funds through the City of Medford and private contributions from M-BELT. Approximately \$1,000,000 has been spent by the City of Medford on the restoration of the historic buildings. In addition, M-BELT has spent \$262,000 of donated funds on the project, as well as providing major infusions of in-kind donations and volunteer hours.

The Brooks Estate Master Plan was finalized in early 2012 by M-BELT and is currently under consideration by the Medford City Council. The Plan is designed to put the property firmly on the road to self-sufficiency and ensure its prominent role as an open space and historic asset for all of Medford.

Today the Brooks Estate is a unique and invaluable natural and historic landscape enjoyed by walkers, joggers, anglers, ice skaters and birders, as well as those who appreciate its architecture and local/regional history.

Other features of historic interest include the "Slave Wall". This brick wall capped with stone slabs is located on Grove Street and is said to have been built in 1765 by a man named Pomp, a black slave held by Thomas Brooks. A project to stabilize this historic wall was completed in 2001.

The Cradock Bridge, which spans the Mystic River at Main Street, was originally built as a wooden bridge in 1637, and was the only bridge across the river until 1787. The original bridge was built in 1880 and a third span was built between 1906 and 1908, after the

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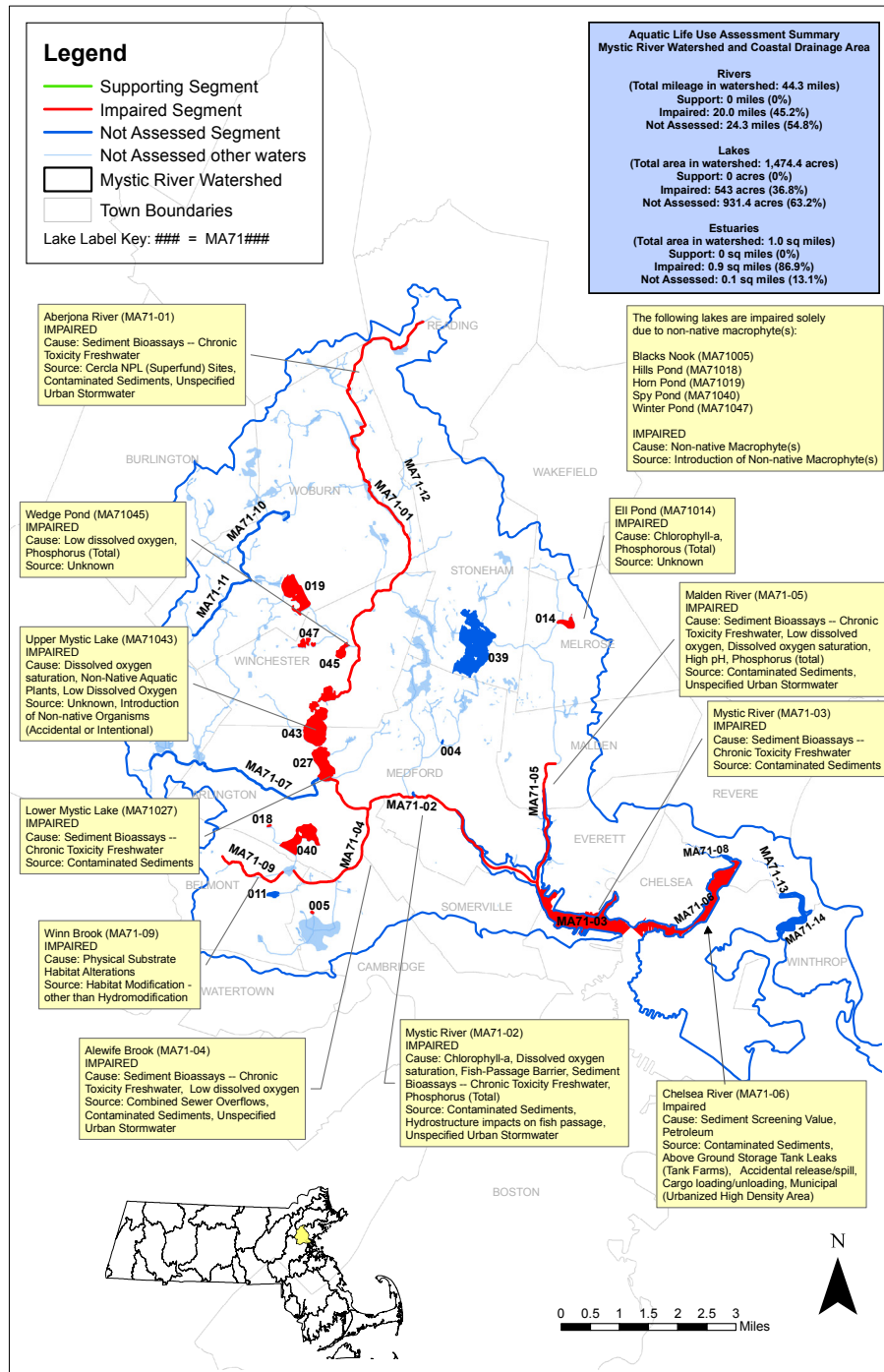
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Medford shipyards were closed.

Many of Medford's parks contain war memorials of local historic significance. These include Veterans Memorial, Victory, Barry Playstead, Grant, Hillside, Harris and Dugger Parks. A similar monument also stood

at Stable Center and was incorporated into the landscaping plan for the South Medford Fire Station built on this site.

## Environmental Challenges





There are no active landfills within the City of Medford or adjacent to its boundaries. Erosion and sedimentation have been identified as growing problems in the Mystic basin, and although water quality in the Mystic Lakes and River is Class B (suitable for primary and secondary contact recreation), ground and surface water pollution have not been identified as a particular problem in the City except in connection with combined sewer overflows, a problem intrinsic to older sewered municipalities which will require substantial resources over the long term to remedy. Flooding in limited areas has been a problem on occasion. Stormwater management and sedimentation impacts to water resources are continuing concerns which can be mitigated with appropriate best management practices.

Recent water quality reports indicate severely impacted conditions due to contaminated sedimentation through non-point source discharge.

As in most older developed areas, localized site contamination from petroleum and other substances may be found when industrial sites are redeveloped; the Massachusetts 21E program provides a framework for the control and remediation of these situations.

### Hazardous Waste Sites

In reviewing the reports of site contamination (See Map G - Environmental Challenges) throughout the City, there are a number of sites with Activity and Use Limitations (AUL) in the south eastern quadrant of the City with a few outlying sites to the west. An AUL provides notice of the presence of oil and/or hazardous material contamination remaining at the location after a cleanup has been conducted pursuant to Chapter 21E and the Massachusetts Contingency Plan (MCP). The AUL is a legal document that identifies activities and uses of the property that may and may not occur, as well as the property owner's obligation and maintenance conditions that must be followed to ensure the safe use of the property. The complete AUL is filed at the County Registry of Deeds office. In addition, a copy of the AUL is available in MassDEP BWSC site files and in City offices. In addition, there are a number of Tier ID and Tier II Classified Sites present, mostly in close proximity to major transportation routes.

If permanent cleanup is not achieved for a disposal site within a year of being reported to MassDEP, the site must be classified as Tier I or II in accordance with the MCP's numerical ranking system (NRS), outlined in 310 CMR 40.1500. The NRS is a point system based on a variety of factors, including 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 given a Tier I classification if they pose an imminent hazard or affect public water supplies. A site's Tier Classification determines the level of MassDEP oversight.

### Flooding

Past flooding in Medford indicates that flooding can occur during any season of the year. However, most major floods have occurred during February, March, and April and are usually the result of spring rains and/or snowmelt. Floods occurring during the summer are often associated with tropical storms moving up the Atlantic coastline. A number of major floods have occurred in the Mystic River basin during the twentieth century, but flooding hazards have become particularly pertinent in recent years as Boston's urban areas have become increasingly developed (and increasingly impervious), and changing weather patterns have brought larger storm events into the region.

In Medford, the areas most susceptible to flooding are along the Mystic River where land has historically been filled in over earlier river bed and marshes, and the wet areas of the Middlesex Fells. The areas around the Fells are protected from development and are able to provide a buffer between flood waters and



the developed areas of Medford. See Map 6, "Water Resources Map" for flood hazard areas.

In the case of smaller flood events, the Mystic River Reservation is able to serve the same purpose along the banks of the Mystic River. But, where roads and buildings closely border the river, there is potential for flood damage. Larger flood events have seen flood waters extend well into developed areas of adjacent communities. Projects to increase the Mystic River's ability to carry flood water out of the river communities and into Boston Harbor have been undertaken, including the renovations of the Upper Mystic Lake Dam (this included the restoration of fish ladders for herring and eel).

Additional improvements to increase water flow into Boston Harbor are also being explored. Restoration of the Cradock Locks - an antiquated and crumbling structure first built in 1909 to assist with shipping up the Mystic, is, at the time of writing, intended to be designed and permitted by some time in 2013.

Another significant project being considered is the installation of a fourth pump in the Amelia Earhart Dam, which was constructed between 1967 and 1976. The dam separates the tidal and the non-tidal parts of the Mystic River, and it is currently able to pump 4,000 cubic feet per second of flow from the Mystic and Malden Rivers against high tide into Boston Harbor. These improvements will certainly increase the rate that flood water can travel out of the Mystic River communities, but they will not address the root issue of increasing impervious cover within the watershed.

## Development Impact

The City of Medford has been extensively developed for quite some time. Any large new developments with potential impacts on local neighborhoods, infrastructure or recreation areas are carefully examined through the site plan review process, and mitigation measures are requested of developers. In addition, the City's linkage program makes major new developments subject to linkage fees to offset the infrastructure impacts of the development. Funds collected through this program are used to ensure that existing City facilities can accommodate the resulting additional demand. The City intends to expand this policy to include open space as well as other types of infrastructure.

Linkage between development and public infrastructure is well established in constitutional law. There is in effect a private/public partnership in all development: the development adds to the economic and tax base and the City provides extensive infrastructure and services ranging from police and fire protection to roadways and open

space. Developments also have varying degrees of impact and those fees have been used in many localities nationwide to ensure that new development pays its fair share of infrastructure improvements as well as the public services supported through the tax base. Linkage programs providing direct developer support of specific improvements accomplish the same goal as impact fees and are, in fact, the traditional way in which residential developers provided. For example, land for schools to serve the new populations that would occupy their subdivisions.

Developer-provided open space is a common type of mitigation for development impacts that is used in the Massachusetts Chapter 91 program for development in historic tideland areas, and more generally through the state's MEPA process. Open space with pedestrian and bicycle paths and improvements to public parks impacted by development are often-used forms of mitigation. In the example of River's Edge (discussed above), as a result of coordination and review by the City and state regulators, the development is not only providing adjacent open space on the Malden River but is also providing the design of the Wellington Greenway which, not contiguous to the development, makes an important contribution to the larger waterfront open space system and forms a link that ultimately connects the development to the extensive DCR Reservation along the Mystic River.



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## 05. Inventory of Lands of Conservation & Recreation Interests

### Importance of Open Space

Understanding the varied functions of urban open spaces is an important part of helping to improve their effectiveness, both by enabling better management of existing urban spaces as well as improving the design of new ones.

The following summary divides the functions up into three main groups:

- Environmental and ecological functions
- Social and societal functions
- Structural and aesthetic functions

#### ENVIRONMENTAL AND ECOLOGICAL FUNCTIONS INCLUDE:

- Climatic amelioration
- Noise screening
- Influencing the hydrological cycle – storm water management
- Providing habitats for wild plants and animals

#### SOCIAL AND SOCIETAL FUNCTIONS INCLUDE:

- Providing space and facilities for leisure and recreation
- Facilitating social contact and communication
- Access to and experience of nature
- Relief from urban density
- Influencing human physical and psychological health and well-being

#### STRUCTURAL AND AESTHETIC FUNCTIONS INCLUDE:

- Articulating, dividing and linking areas of the urban fabric
- Establishing a sense of place
- Acting as a carrier of identity, meanings and values

The City of Medford owns 31 and manages 30 parks and recreation facilities, including Wrights Pond and Hormel Stadium, a series of neighborhood playgrounds, and several passive parks and green spaces. Facilities at these locations range from beaches

and swimming pools, to softball and soccer fields, basketball and tennis courts, tot lots, a stadium, a skating rink, historic buildings and structures, and a skateboard park. In addition to these lands, the gym and pool at Medford High School are open to the public, and there is an outdoor pool at Tufts Park. There is also the Gene Mack Gym located in the basement of the Chevalier Auditorium. The gym was renovated in the late 1990's and reopened in 2001 and is run by the Medford Boys and Girls Club, providing an indoor recreation venue.

Based on a survey of all facilities conducted in Spring 2011, it is clear that all parks and playgrounds receive a high level of use and as a consequence, wear out over time and require periodic renewal and renovation. Included in the Action Plan in Section 9 is the renewal of a number of parks and playgrounds that were last upgraded prior to 2001.

Medford benefits from the large DCR land holdings within the City. Approximately 72 percent of the City's open space is owned by the DCR. The Middlesex Fells comprises over 1000 acres and the Mystic River Reservation is an additional 130 acres. In 1999 DCR (then MDC) sold 43.9 acres of riverfront parkland between the Route 16 bridge and the I-93 bridge (near Hormel Stadium) to the City of Medford for one dollar. This parkland is now called Riverbend Park. The City built two new schools - one housing the Andrews Middle School and the other housing the McGlynn Elementary and Middle Schools. As part of this project, 30 acres of park land along the Mystic River was improved and four acres replaced as part of development along the Malden River. In addition to the new schools, the project included a multi-use path, baseball/softball fields, an amphitheater, a canoe launch, community gardens, and a wet and dry meadow area that will be used by students to study various ecosystems. This project was completed in 2002.

### Protected Open Space

Public open space is protected in Massachusetts by Article 97 of the state constitution which requires extraordinary procedures at the state and local level, including a 2/3 vote of the Massachusetts



Legislature to convert this land to other uses. The difficulty of removing open space from Article 97 protection reflects the high priority given by the state constitution to preserving open space for its natural resource protection and recreational benefits. In general, Medford's municipally owned parks and playgrounds have Article 97 protection, as does the DCR-owned open space and the Brooks Estate (through a Conservation and Preservation Restriction). Facilities on School Department and Housing Authority property provide recreational and open space benefits but do not have Article 97 protection. Some privately owned open space, such as riverfront paths on the Malden River, is subject to the conditions of other state permits (such as Chapter 91 Waterways permits and MEPA commitments made in Environmental Impact Reports) and is protected by these means.

### Other Green / Open Spaces

In addition to City park parcels, the City of Medford has a number of other green/open spaces that add to the character of the City. These include DCR-owned and managed parkways such as the Mystic Valley Parkway, the Fellsway, and a series of small City-owned green spaces, planted roadway medians, and traffic circles. Medford has had an Adopt-a-Site program in place since 1995. The program, managed by the Mayor's Office, allows residents and/or businesses to landscape traffic islands and install small signs with business or family names on them. The City also has a Medford Square Beautification Program which contracts landscaping and maintenance of traffic islands and small green spaces in and around the Square. In the fall of 2000, a landscape plan for City Hall was implemented. These efforts were well received by the community, but public comments received during the preparation of this Plan indicate that some residents see opportunities for improvements and strategic passive use at more of Medford's "informal" green spaces.

### Privately Planned Open Spaces

In addition to the existing facilities, owned by the City and the state, there are also projects being developed by private parties. Developers at River's Edge have created a new park long the banks of the Malden River, and will continue to expand the recreational

spaces in their development in future phases. The Wellington Business Park will site a sculpture garden with historic Medford themes along the river near the Wellington Four building. River's Edge developers are also assisting with funding for the Wellington Greenway, which will connect the new River's Edge parks with the existing Mystic River Reservation.

Map 4 - Existing Open Space shows all facilities within the City, by ownership.

### Inventory of City-Owned Open Space

**Carr Park** is located on Winslow Avenue and is 11.5 acres consisting of four little league fields, two tennis courts, one basketball court, and one tot lot.

**High School Fields: Edgerly Sports Complex and Football Practice Field** at Medford High School. Consists of two multi-use synthetic turf fields with new lighting, score boards, and a renovated track. A natural turf practice field was also added.

**Hickey Park** is located on Brogan Road and is 4.4 acres consisting of one baseball diamond, one softball diamond, one tennis court, one basketball court, and one tot lot.

**Prescott Park** is located on St. James Avenue and is .25 of an acre. This is a passive park.

**Harris Park** is located on Second Street and is 2.8 acres consisting of two T-ball fields, two tennis courts, two basketball courts, and one tot lot.

**Morrison Park** is located on Central Avenue and is 4.4 acres consisting of one baseball diamond, two tennis courts, one basketball court, and one tot lot.

**Magoun Park** is located on Pembroke Street and is 1.3 acres consisting of two basketball courts, and one tot lot.

**Logan Park** is located on Otis Street and is 1.3 acres consisting of one tot lot and ample green space.

**McNally Park** is located on Webster Street and is 1.7 acres consisting of one softball field and one tot lot.

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**Victory Park** is located on Winthrop Street and is 12.0 acres consisting of one adult soccer field, one basketball court, one tennis court, and one tot lot.

**Hastings Heights** is located on Allston Street and is 1.3 acres. This is a passive park.

**Playstead Park** is located on Playstead Road and is 12.3 acres consisting of one baseball diamond, two basketball courts, two adult soccer fields, four tennis courts, and one tot lot.

**Thomas Brooks Park** is located on Grove Street and is 6.0 acres. This is an area of open green space.

**Dugger Park** is located on Mystic River Road and is 3.2 acres consisting of two basketball courts, one youth soccer field, five tennis courts, and one tot lot with water spray area.

**Capen Street Park (Hillside)** is located on Capen Street and is .77 of an acre consisting of one basketball court, and one tot lot with water spray area.

**Grant Park** is located on Boston Avenue and is .23 of an acre. This is a passive park.

**Cummings Park** is located on Cotting Street and is .45 of an acre consisting of one tot lot and, one half basketball court.

**Memorial Park** (Veteran's Memorial Park) is located on Winthrop Street and is 9.6 acres consisting of two little league fields and one softball field. It is owned by DCR and managed by the City of Medford.

**Barry Park** is located on Summer Street and is 3.6 acres consisting of one baseball field, two basketball courts, two tennis courts, and one tot lot.

**Royall House Park** is located on George Street and is .76 of an acre. This is a passive park.

**Brooks Park** is located on Main Street and is .36 of an acre. This is a passive park.

**Tufts Park** is located on Main Street and is 10.6 acres consisting of four softball fields, one youth soccer fields, one basketball court, one tot lot, and a swimming pool.

**Columbus Park** is located on Hicks Avenue and is 5.0 acres consisting of one little league field, one softball field, and one basketball court.

**Hormel Stadium / Riverbend Park** is located on Locust Street and is 43.9 acres consisting of two little league fields, one adult soccer field, one tot lot, a community garden, one football field with track. This area has ample green space.

**Wright's Pond** is located on Elm Street and is 148 acres consisting of a beach, fresh water swimming, a bath house with concession area and ample parking. Wright's Pond is surrounded by the Middlesex Reservation.

**Brooks Estate** is located on Grove Street in Medford, MA and has been owned by the City of Medford since 1942 and permanently protected in late 1998. Restoration of the landscape and historic buildings is underway.

**Gillis Field** stands as Medford's premier Little League venue at 124 Fulton Street.

**Medford Honor Roll Park** at 489 Winthrop Street hosts a beautiful veterans' memorial honoring the veterans of World War II, the Korean, and Vietnam wars.

**Clippership Park** on Clippership Drive near City Hall extends waterfront public access. The park includes two seating areas, walkways, decorative lighting, and landscaping.

**Oak Grove Cemetery** is an active cemetery located at 230 Playstead Road.

**Salem Street Burying Ground** located at the intersection of Salem Street and Riverside Avenue and was used exclusively in the late 17th century to late 19th century for the burial of the town's wealthy.

# CITY OF MEDFORD OPEN SPACE INVENTORY MAP Map 7



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# Land Inventory Matrix - Lands of Conservation and Recreation Interest

Name	Zoning	Acres	Ownership	Management	Use	Condition	Recreation Potential	Public Access	Funds Used	Degree of Protection
<b>Public Lands - Parks and Playgrounds</b>										
● Barry Playground	F2	3.6	City	City Parks Dept	Recreation	Fair	High	Fair	-----	Chapter 97
● Brooks Park	APT1	0.36	City	City Parks Dept	Passive	Poor	No	Poor	-----	Chapter 97
● Capen Street Park	GR	0.77	City	City Parks Dept	Recreation	Fair	High	Fair	USH, Private	Chapter 97
● Carr Park	SF2	11.5	City	City Parks Dept	Recreation	Fair	High	Good	USH	Chapter 97
● Clippership Park	C1	0.5	City	City Parks Dept	Passive	Good	High	Good	PARC & EDI	Chapter 97
● Columbus Memorial Park	GR	5	City	City Parks Dept	Recreation	Good	High	Good	CDBG	Chapter 97
● Cummings Park	GR	0.45	City	City Parks Dept	Recreation	Fair	High	Fair	CDBG	Chapter 97
● Duggar Playground	ROS	3.2	City	City Parks Dept	Recreation	Good	High	Fair	CDBG	Chapter 97
● Gillis Field	APT1	1.7	City	City Parks Dept	Recreation	Good	High	Poor	-----	Chapter 97
● Grant Park	C1	0.23	City	City Parks Dept	Recreation	Fair	High	Fair	-----	Chapter 97
● Harris Playground	GR	2.8	City	City Parks Dept	Recreation	Poor	High	Good	-----	Chapter 97
● Hastings Park	SF1	1.3	City	City Parks Dept	Passive	Fair	No	Poor	-----	Chapter 97
● Hickey Playground	GR	4.4	City	City Parks Dept	Recreation	Fair	High	Fair	-----	Chapter 97
● High School Fields	SF1	7	City	City Parks Dept	Recreation	Fair	High	Poor	-----	Chapter 97
● Riverbend Park & Hornel Stadium	ROS	43.9	City	City Parks Dept	Recreation	Good	High	Good	-----	Conservation Restriction on 39.2 acres MGL ch184 §31-33
● Logan Park	SF2	1.3	City	City Parks Dept	Recreation	Poor	High	Fair	-----	Chapter 97
● Magoun Park	SF2	1.3	City	City Parks Dept	Recreation	Poor	High	Fair	-----	Chapter 97
● McNally Playground	APT2	1.7	City	City Parks Dept	Recreation	Poor	High	Poor	-----	Chapter 97
● Morrison Playground	GR	4.4	City	City Parks Dept	Recreation	Fair	High	Fair	-----	Chapter 97
● Playstead Playground	SF1	12.3	City	City Parks Dept	Recreation	Good	High	Fair	CITY	Chapter 97
● Prescott Park	GR	0.25	City	City Parks Dept	Passive	Fair	No	Poor	-----	Chapter 97
● Royal House Park	SF2	0.76	City	City Parks Dept	Recreation	Good	High	Fair	-----	Chapter 97
● Thomas Brooks Park	SF1	6	City	City Parks Dept	Passive	Fair	No	Poor	State	Chapter 97
● Tufts Park	GR	10.6	City	City Parks Dept	Recreation	Good	High	Fair	CDBG	Chapter 97

Land Inventory Matrix - Lands of Conservation and Recreation Interest

Name	Zoning	Acres	Ownership	Management	Use	Condition	Recreation Potential	Public Access	Funds Used	Degree of Protection
Public Lands - Parks and Playgrounds Continued										
● Victory Park	SF1	12	City	City Parks Dept	Recreation	Good	High	Fair	USH, City	Chapter 97
● Wright's Pond	ROS	148	City	City Parks Dept	Recreation	Good	High	Good	----	Chapter 97
● Veteran's Memorial Park	ROS	9.6	DCR	City Parks Dept	Recreation		High	Good	----	MGL Ch. 132
Conservation Lands										
● Shepherd Brooks Estate	ROS	49.81	City	M-BELT	Conservation	Poor	No	Poor	CDBG, State, Private	Conservation Restriction on 49.81 acres MGL ch184 §31-33
● Middlesex Fells	ROS	1156	DCR	DCR	Conservation	Good	High	Fair		MGL Ch. 132
● Mystic River Reservation	ROS	279	DCR	DCR	Conservation	Fair	High	Poor		MGL Ch. 132
● Condon Shell	ROS		City	City Parks Dept	Conservation	Fair	High	Fair	EDI	Chapter 97
● MWRA Land	ROS	41	MWRA	MWRA	Conservation	Fair	No	No		
Cemeteries										
● Oak Grove Cemetery	SF1	109	City	City Parks Dept	Cemetery	Good	No	Fair	----	Chapter 97
● Salem Street Burial Ground	C1	1	City	City Parks Dept	Historic	Fair	No	Poor	MA Preservation Fund	Chapter 97
Indoor Recreation										
● Gene Mack Gym	SF2	n/a	City	Boys & Girls Club	Recreation	Fair	High	Good	----	Chapter 97
● High School Gym & Pool	SF1	n/a	City	HS Athletic Dept	Recreation	Poor	High	Good	----	Chapter 97
● Flynn Skating Rink	ROS	n/a	DCR	Friends of Flynn Rink	Recreation	Fair	High	Good	----	MGL Ch. 132
● LoConte Rink	I		DCR	HS Athletic Dept	Recreation	Fair	High	Good		MGL Ch. 132
Private Lands										
● Alumni Field	GR	19.5	Tufts	Tufts University	Recreation	Good	High	Fair	----	None
● Cousens Gym	GR	n/a	Tufts	Tufts University	Recreation	Fair	High	Fair	----	None
● River's Edge Park	O	16.7	Preotile Lane Assoc.	Preotile Lane Assoc.	Passive	Good	High	Good	Private	Conservation Restriction on 4.9 acres MGL ch184 §31-33

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## 06. Community Vision

### Community Goals

A major source of direction in this Open Space Plan came from the values and goals of Medford's residents, who use the open space system and are the best source of information on their needs. At the April 6th and June 1st Public Meetings valuable observations and suggestions were received. These included themes and goals that might be summarized as follows:

- Improvement of active recreation areas and playing fields to facilitate underserved sports leagues.
- Restoration of facilities and areas for active and passive use and as natural habitat.
- Linkage between open spaces, both within Medford and with regional resources.
- Efficient operations and management of the open space to maximize its benefit.
- Development of a greater awareness of the whole open space system by its users.

At the public meetings, residents suggested the need for some additional facilities and services. These include:

- More shade trees Citywide and at parks such as Playstead
- Improved access to and along the Mystic River, especially in Medford Square
- Activities such as concerts and public art at the DCR bandstand
- Additional community garden space
- Increased attention to sidewalk conditions, and park-wide accessibility
- Installation of non-intrusive lighting at Carr Park
- Public education to help keep parks free of litter and dog waste
- Off-leash recreation areas for dogs
- Inclusion of public art in the City's parks and open spaces

Since the 2001 plan Medford has completed the following projects:

- **Complete reconstruction of Riverbend Park**
- **Rehabilitation of play structures and tennis courts/street hockey rink at Playstead Park**
- **Reconstruction of children's play area at Barry Playground**
- **Reconstruction of children's play area at Magoun Playground**
- **Stabilization of the historic "Slave Wall" at Thomas Brooks Park**
- **Rehabilitation of play area, courts and fields at Columbus Park**
- **Rehabilitation of track and lighting at Hormel Field**
- **Fixed drainage problems, reconstructed ball field, reconstructed tot lot area, added curb-side drop-off area at Victory Park**
- **Installed lighting at High School Soccer Fields**
- **Installed new play structures at Dugger Park**
- **Established Community Gardens at Hormel Park**
- **Developed a new football practice field at Medford High School**
- **Installed two new artificial turf multi-use fields, lighting and scoreboards and renovated the track at Medford High School (Edgerly Sports Complex)**
- **Began accessibility improvements to Edgerly Sports Complex multi-use fields (expected completion Spring 2012)**
- **Developed a plan and conceptual**

design to provide a riverfront open space connection between Hormel Park and Medford Square

- Constructed Clippership Drive and Clippership Park, as part of the riverfront open space connection initiative
- Renovated Condon Shell , as part of the riverfront open space connection initiative
- Begun work, with the assistance of the River's Edge developer (Preotle, Lane & Associates) and the MET on the Wellington Greenway Project
- Initiated a citywide Street Tree Inventory
- The Medford-Brooks Estate Land Trust has continued maintenance of the property. Rehabilitation has been accomplished for trails, woodland, and the shoreline of Brooks Pond, and the historic Shepherd Brooks Manor has received envelope, interior, and systems repairs, and a complete Master Plan has been developed and presented to the City of Medford.



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## 07. Analysis of Needs

Medford has park facilities that provide an extensive variety of recreational opportunities located throughout the City. Because the City is densely populated, the parks are well-used. Medford Baseball Council, Medford Youth Soccer, and Girls Youth Softball alone use several different parks for their scheduled games. Groups that obtain permits include baseball, softball, lacrosse, football, and tennis.

In addition to organized sports, most of Medford's parks are used for informal recreational pursuits such as ball-playing and activities such as frisbee, hiking, biking, and swimming. In some parks, multi-purpose courts were re-stripped to accommodate both basketball and street hockey, but often the secondary uses were under-utilized. A visit to Wrights Pond on a hot summer day will attest to its heavy use for both swimming and walking on the trails that surround the pond. Hillside Park is heavily used, even on weekday mornings by neighborhood parents and their toddlers. Community meetings revealed significant use of the portions of the river's edge that are accessible by bike or foot; people also use portions of the riverfront that are less accessible.

Overall, it was noted that there is an adequate quantity of soccer fields and ball fields for adult leagues, but also noted the quality and condition of most playing venues is lacking. Operations and maintenance for the City's 407 acres of City-managed open space is handled by three individuals. Neighboring community, Somerville (cited by several survey respondents as having parks in excellent condition) manages 92 acres with a staff of nine people. The density of the City and the great need for public open space has brought an increased maintenance burden, particularly in the summer months, and the City expends considerable effort to keep the heavily used parks clean, mowed, and maintained.

### **Statewide Comprehensive Outdoor Recreation Plan (SCORP)**

The following excerpt is taken from the Metropolitan Boston Region Section of the 2006 Plan:

"Walking is the most reported recreation activity in this region, as in the state, followed

closely by sightseeing, which is engaged more frequently here than in any region but the Southeastern and Central Regions. These are followed, in rank order, by swimming (48.3%, its lowest in the state), and then a large drop to golfing (21.5%), picnicking (21.0%), playground activity (20.5%), and sunbathing (20.3%). Significant numbers also report engaging in fishing (17.3%), and both types of biking, road (17.2%) and mountain (13.2%). It is also interesting to note that participation rates for tot lots within this region are second lowest over all regions, even though tot lot facilities are most abundant in this region."

Recreation trends, by activity, for the Metropolitan Boston Region are quite similar to the statewide sample, in part because this region makes up such a large part of the statewide sample. However, some interesting distinctions include the fact that this region places the highest participation rates within the general activity category of field-based recreation. This includes neighborhood parks, golf courses, tot lots, and playgrounds. This pattern would suggest that the presence of the state's three largest cities, Boston, Worcester, and Springfield, might account for the heavy reliance on these intensive recreation facilities. Bikeways also receive heavy use. These reports are reinforced by the frequency of return visits reported, where bikeways, coastal beaches or shorelines, golf courses, neighborhood parks, playgrounds, and tot lots receive the largest number of return trips per year (10, 12 and 15 respectively). This pattern of use is quite different, even from the relatively urban Northeastern Region, which relies more heavily on rivers, streams, lakes, and ponds. If the Mystic Watershed were in better condition, Medford may see more similarities with this trend.

### **Funding Preferences**

The most pressing need among Metropolitan Boston residents is improved access for people with disabilities. This might be a surprising finding until one considers that those who consider themselves "disabled" includes a very broad range of groups, from the people with mental disabilities to the elderly. Among other needs, area residents mirror other regions of the state by strongly favoring maintenance and restoration of existing facilities. Public transportation access

to recreation areas is a much higher priority among Metropolitan Boston residents than among residents of other regions (83.5%). Finally, the purchase of new facilities is highly favored, with 80% favoring this priority. Providing interpretive maps and information receives its lowest priority ranking among the regions here but still rates an 80.5% favorability rating." - 2006 SCORP

According to the 2006 SCORP, the per capita acres of recreation and conservation land in the Metropolitan Boston Region is .03 acres per capita, or 300 acres per thousand people. Medford itself has a slightly higher ratio, with .04 acres per capita.

The National Recreation and Parks Association (NRPA) offers additional statistics for comparing the size, number, and maintenance needs of parks. The numbers published by the NRPA in their 2012 Parks and Recreation National Database Report provide a snapshot of the median recreation services and needs across the country, but cannot be used as strict guidelines. Each jurisdiction surveyed by the NRPA has distinct user populations and regional resources and challenges, and the NRPA encourages each jurisdiction to use the study as a point of comparison, but to develop their own locally-driven parks and recreation plans. With this in mind, the chart below shows the median number of various recreation facilities across the country.

**Facilities**

Facility type	Percentage offering	Median jurisdiction population per facility
Recreation/community center	70.9%	24,431
Playground	94.8%	3,800
Tennis court (indoor)	5.9%	16,034
Tennis court (outdoor)	84.9%	4,292
Basketball court (outdoor)	84.2%	7,362
Swimming pool (indoor)	24.6%	42,028
Swimming pool (outdoor)	50.8%	30,000
Rectangular fields (e.g. football/soccer)	87.8%	3,523
Diamond fields (e.g. baseball/softball)	87.4%	3,139
Golf Course (9 holes)	31.6%	21,600
Dog Park	42.9%	48,260
Community gardens	41.4%	31,936

2012 Parks & Recreation National Database Report - NRPA

Medford has a total of 15 playgrounds (3,745 population per playground), 19 outdoor tennis

courts (2,957 population per tennis court), 18 outdoor basketball courts (3,121 population per court), 10 "rectangular fields" (5,617 population per field), 23 "diamond fields" (2,442 population per field), one indoor pool, (56,173 population per pool) one outdoor pool (56,173 population per pool), one community garden (56,173 population per garden), and no dog parks or golf courses. Using the NRPA national median numbers as a rough comparison, Medford has more facilities per capita than the national median for playgrounds, tennis courts, basketball courts, and diamond fields. Medford falls short of the national median in rectangular fields, pools, community gardens, and dog parks. Once the Medford High School pool is rehabilitated, the indoor pool facilities will each serve 28,087 - a lower ratio than the national median.

### Park Distribution

Overall, parks are well-distributed throughout Medford. National Recreation and Park Association Guidelines recommend a maximum walking distance of one-quarter mile to neighborhood park facilities and one-half mile to larger parks which may serve more than one neighborhood.

If DCR properties are included, very few areas of the City are further than a quarter-mile (straight line distance) from any Medford open space, and all residents of the City are within a half-mile radius of a park. Other areas in this category include a small portion of South Medford east of Alumni Field; and a portion of the North Medford neighborhood area that is not within a quarter mile of a Medford park but is close to a park in Malden.

The Wellington area is predominantly an area of industrial and commercial uses with residential areas at its eastern and western ends. While the eastern residential area is served by the recently rehabilitated Harris Playground, the western portion of the area contains over 60 units of family and elderly housing served only by Riverbend Park and Hormel Stadium. Play areas are available at the La Prise Village family housing development. Conversion of Hormel Stadium to synthetic turf, included in the Action Plan, will provide extended play seasons of the field for both the neighborhood and city as a whole.

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The Lawrence Estates Neighborhood is one of the least densely populated neighborhoods in the City and has only one City park, McNally Park. A similar situation exists in North Medford where the large Carr Playground is the only location for neighborhood recreational facilities. However, these neighborhoods are relatively close to the Middlesex Fells and Wrights Pond, giving them good access to these larger resources that serve the entire City.

### **Missing Links**

Few urbanized areas in the Boston area have the riverfront resources that Medford enjoys, but these resources can be improved to serve more residents than currently take advantage of them. In total, there are approximately 12 miles of riverfront property along both sides of the Mystic River and the Medford side of the Malden River. Plans for the Wellington Greenway, connecting the River's Edge development to the Mystic River, will improve access to much of the Medford side of the Malden River. The Riverbend Park Riverwalk has also enhanced riverfront access.

The missing links to a continuous pathway along the river occur between Riverbend Park and the point where the Mystic Valley Parkway crosses the river near Medford Square. A portion of this area is located behind the Medford Square commercial district. Challenges to creating this connection include acquiring land or easements, providing safe street crossings, and potential roadway changes. But, the benefits of making this connection along the river and to Medford Square are great. The Action Plan section of this report details possible improvements in these areas. Improvements are also identified on Map 5 - Action Plan.

### **Diversity Compliance**

#### **Access for Elderly and People with Disabilities**

One overriding characteristic of recreation facilities and activities important to a significant portion of the public is access for people with disabilities. Sensitivity to those with special needs has risen over the years, culminating in 1990 with passage of the Americans with Disabilities Act (ADA). The ADA requires that open space and recreation facilities, among many others, are accessible to people with

## **Medford Riverwalk**

Building a continuous pathway system along the Mystic and Malden Rivers is an important goal of this plan. Extensive portions of this pathway currently exist, but segments are missing and represent important opportunities to serve the neighborhoods that adjoin them with facilities for active (fitness walking, jogging, bicycling, and rollerblading), as well as passive recreation. The following summarizes existing access and opportunities to develop additional links in the system.

**Mystic Lakes to Alewife Brook Confluence:** From the Mystic Lakes to the confluence of the Alewife Brook there is DCR land along both the Medford and Arlington sides of the Mystic River. Walking paths exist and access to this property is adequate. This segment of the riverfront also includes Dugger Playground.

**Alewife Brook Confluence to Mystic Valley Parkway Crossing:** On the south bank starting at the confluence of the Alewife Brook, a pathway exists only on the Somerville side of the river for about a quarter mile. The south bank is mostly passable, but in some locations abutting property owners may have encroached onto DCR property, blocking access. Portions of this segment are undeveloped but attractive and are used as a riverfront walking link. At West Street, people exit to the street for a block before rejoining the riverfront at Winthrop Street. On the north bank there is a small segment of riverfront that has limited accessibility near the railroad bridge, which acts as a barrier. Between the two crossings of the Mystic Valley Parkway there is good access to the north bank of the river. Starting at the upstream crossing of the Mystic Valley Parkway, Veterans Park runs east to Winthrop Street. East of Winthrop Street is additional DCR parkland that includes a bandstand.

**Mystic Valley Parkway to Main Street:** This section of the Mystic River has limited access. A small segment of the south bank is accessible between the Parkway crossing and Main Street. The north bank is lined with historic buildings. A pedestrian bridge offering attractive views provides access



from High Street between the buildings and across the river to the south bank. The Main Street crossing is a significant obstacle in the development of a continuous walkway. A bridge underpass (which may or may not be feasible) or an improved pedestrian crossing of Main Street would improve access along this segment of riverfront.

**Main Street to I-93:** Downstream from Main Street the new Clippership Drive and Clippership Park renovations have created a riverfront park and boulevard area connecting Main Street and the center of Medford Square to the Medford Housing Authority properties, just west of I-93. There is potential to connect the yards between these high-rise buildings and the Mystic River with the new Clippership Park area. Building a pedestrian path under I-93 would be key to creating a continuous pedestrian connection along the entirety of the Mystic River in Medford. This link would be straightforward - there is ample space between the bridge abutments and the river's edge. An easement from Mass DOT under I-93 would be required.

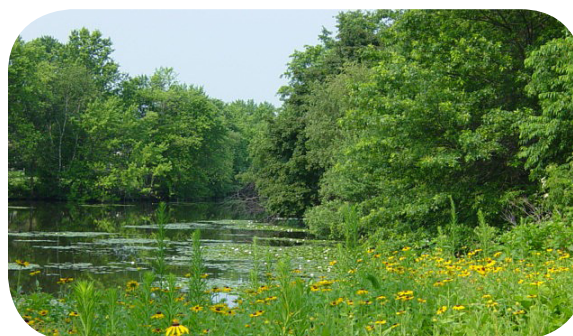
**I-93 to Riverbend Park:** Immediately downstream from the I-93 crossing is a parcel of land that the DCR has recently purchased. This land could easily be developed into a link in a continuous walkway. Beyond the new DCR land is the Shipyard Way Condominiums and the Riverside Yacht Club. The DCR owns a strip of land between the Shipyard Way Condominiums and the river bank, but there is no pathway and the area has the appearance of private yards. The yacht club land is leased from the DCR. Yacht club operations use the entire property and access would be difficult without modifying the way the club stores boats in winter and cars are parked in summer. Alternatively, the Riverside Avenue sidewalk could be improved and used to route people around the yacht club. Between the yacht club and Riverbend Park the DCR maintains an easement behind some apartments. With an agreement between the property owner and the DCR, construction of a pathway would not be difficult.

**Riverbend Park to Middlesex Avenue/Route 28/Fellsway:** The rehabilitation of the Riverbend Park multi-use pathway has improved connections significantly. Passage under or across the Fellsway is an issue that will need careful consideration. Construction of an accessible underpass at the Fellsway or realignment of the path to the existing pedestrian crossing signal at the roadway level would be needed to establish this link safely.

**Route 28/Fellsway to MBTA Orange Line:** Between the Fellsway and the Orange Line is a narrow but accessible strip of DCR-owned land. Another yacht club operates inland of the DCR reservation. The pathway crosses the boat launching ramp without conflict.

**Orange Line to River's Edge:** This portion of the Riverwalk is known as the Wellington Greenway. A continuous Riverwalk has been designed as part of the River's Edge project. It includes passage under the MBTA tracks and under the Revere Beach Parkway Woods Bridge. North of the Revere Beach Parkway it connects into an existing walkway along the Malden River on the Wellington Business Park property and will connect to planned parks and walkways at River's Edge.

**South Bank – Main Street to Mystic Valley Parkway:** There is an undeveloped narrow strip of open space between the Mystic Valley Parkway and the river bank between Main Street and the southern most Mystic Valley Parkway crossing. The DCR owns the roadway and infield areas along the river, but this land is highly impacted by the highway and is not developed as open space, although there is some evidence of use along the river edge.



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disabilities. The 1988 inventory revealed that the most accessible facilities at open space and recreation sites were comfort stations and visitor centers. The resources themselves were generally less accessible. Statewide inventory findings revealed accessibility levels as high as 24% at facilities for field activities, while many of the water-based facilities and trails reported much lower levels of access.

Review of Park Assessment Forms (found in Appendix D) encouraged the inclusion of the action item “city-wide improvements to paths of travel and accessibility for severely disabled adults”, to be implemented with HUD funding over the next 7 years. For more details on this important work, please refer to Section 9. Seven Year Action Plan, and Appendix D.

### **Resource Protection Needs**

Key natural resources needs are improvement and protection of habitat at the water's edge of the Mystic and Malden Rivers,



which are a major focus of this plan, and the continued management by M-BELT of the Shepherd Brooks Estate (see page 4-9) for conservation and public use, based in part on the September 2000 Landscape and Vegetation Management Plan. Middlesex Fells Reservation (owned and managed by DCR) does not require City attention.

### **School Yards**

The City has a number of elementary and middle school yards, generally with relatively little recreational space. Some have only a small hard-top space for games and no usable grassy areas or play equipment. In the past decade the City consolidated several schools in two new buildings at Riverbend Park, where they now benefit from extensive, improved open space.

Medford High School is a major recreational resource, providing community use of its synthetic turf soccer fields, pool, and gymnasium in a manner consistent with school sports and physical education programs. The pool, however, has reached the end of its useful life and has been closed for four years. It is in desperate need of renovation, and there has been significant support among Medford residents to prioritize the rehabilitation/reconstruction of the facility. In response, the City Council voted on January 31, 2012 to approve a Loan Order in the amount of \$1,925,000 for the reconstruction or replacement of the Medford High School swimming pool.

### **Maintenance & Rehabilitation**

The online survey included questions about the conditions of park facilities. The survey results revealed that the number one reason people do not make better use of the parks in Medford is that they are in poor condition. The Public Works Department's Parks Division is overwhelmed with the number of facilities it is charged with maintaining. At times, heavy use by organized leagues and spectators exacerbate the issue and create higher than normal levels of litter and debris. In summer months, the 3-person parks maintenance staff, is extremely hard-pressed to keep up with mowing, irrigation, and other maintenance of City-managed parks.

As the overall quality of the parks declines



from lack of adequate maintenance, they become more prone to vandalism and abuse. Some neighborhood groups have taken ownership over their local parks and organized clean-up days and some leagues pay private contractors to maintain specific fields which helps improve a sense of pride and deter vandalism.

As noted in the park assessment surveys in the Appendix, a number of parks showed signs of play equipment and site amenities in need of replacement or repair. This includes missing swings and seesaws, broken fences and water fountains, and cracked or broken pavement. These needs go beyond routine maintenance in most cases and are addressed as capital project priorities in the Action Plan section of this document (please see Section 9 - Seven Year Action Plan for details on specific prioritized park improvements).

Since 2001 the City has rehabilitated or improved all or a portion of 14 parks. All park rehabilitations since 2001 have included improved accessibility for people with disabilities, and the park system is steadily progressing toward conformance with the Americans with Disabilities Act and Massachusetts Architectural Access Board regulations.

### Management Needs

Most of Medford's Open Space System is managed by the Parks Division of the Department of Public Works, which maintains fields and operates facilities such as Tufts Pool and the beach at Wrights Pond. In 2001, the Parks Division had 10 full time employees and hired additional temporary employees during the summer months, particularly to operate the swimming facilities. In 2011, the Parks Division has 3 full time employees with limited seasonal staff to support the aquatics programs. The Medford Parks Board generally oversees the City parks and playground system and manages the use of athletic fields through a permit system.

An extensive area is owned and managed by the DCR. The Gene Mack Gym is managed by the Medford Girls and Boys Clubs through an agreement with the City. The LoConte Rink is owned by DCR and operated by the Medford High Athletic Department. Flynn Rink is also owned by DCR but operated by "Friends of

the Flynn Rink, Inc." a volunteer-based group of parents from Melrose and Winchester. The Brooks Estate is owned by the City of Medford, but is managed by the M-BELT. Playing fields at Medford's public schools are managed by the individual schools, and Hormel Stadium is managed by the Hormel Commission. These managers of the open space system do a generally good job despite relatively constrained financial resources for staffing, equipment, and operating personnel. Coordination between these management entities is also good. There are no significant conflicts of use within the City's parks and playgrounds.



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## 08. Goals and Objectives

The City's open space and recreation goals and objectives were developed with the Open Space Plan Steering Committee, members of the Community Development Department, and through input from the community at two public meetings and an online survey. The goals are compatible with previous plans. The goals focus on serving residents and integrating open space into the community.

First and foremost, the City has made significant cuts to the maintenance division for parks and recreation. Creative strategies must be implemented to restore the maintenance department's ability to bring Medford's open spaces back to their former state of not only good repair, but high quality.

### 0.0 Elevate ability for City to maintain its open space resources.

#### **Goal #1: Serve the active recreation needs of all residents throughout Medford by upgrading the conditions of existing facilities.**

- 1.1. Meet community needs for organized and informal team and individual sports.
- 1.2. Extend the playing season and minimize use limitations due to wet conditions.
- 1.3. Extend playing hours for adult leagues and facilitate Youth League night-time play.
- 1.4. Provide a venue for the school swim team.
- 1.5. Find a permanent home field for youth lacrosse.
- 1.6. Meet the specific needs of children, elders, and people with disabilities.
- 1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.
- 1.8. Provide a clean, safe, accessible playground for each neighborhood.

#### **Goal #2: Establish connections to and along the city's natural resources.**

- 2.1. Create a multi-use path system along the Mystic River, Malden River, and Alewife Brook.
- 2.2. Provide access to the water for pedestrians, personal water crafts, and as an

alternative route for transportation.

- 2.3. Prioritize DCR's Mystic River Master Plan findings and leverage common goals.

#### **Goal #3: Expand / diversify recreational programming for the city within the existing open space resources.**

- 3.1. Expand community garden sites within the City to serve more moderate to low income neighborhoods.
- 3.2. Provide separate and distinct open space resources for residents with dogs who are not allowed off-leash in many of the City's parks.

#### **Goal #4: Improve the ecological quality of the city.**

- 4.1. Deploy stormwater management pilot projects through out the city to improve water quality.
- 4.2. Restore wetlands within the riverfront areas to create better ecological function and native habitat.
- 4.3. Manage the presence of exotic invasive vegetation in ecologically significant landscapes.
- 4.4. Expand the urban forest canopy.
- 4.5. Protect water quality and important natural resource areas and buffer zones.

#### **Goal #5: Develop a system for park facility management / maintenance that will:**

- 5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.
- 5.2. Facilitate the management of playing fields to protect their condition.
- 5.3. Leverage permit fees as income for parks maintenance.
- 5.4. Educate the residents as to the resources available through out the city-wide open space system.
- 5.5. Support programming that supports public art and use of public outdoor venues through out the City.



These goals and objectives should be strategically implemented to achieve both long-term goals (like achieving continuous riverfront access) and immediate priorities (like park and playing field improvements).



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## 09. Seven Year Action Plan

Actions that the City would like to pursue fall into three general categories: acquisitions and improved access, park rehabilitations and protection, and policies and programs that enhance the system of open spaces within Medford. Prioritization was established based on the neighborhood need and the ability of the project to serve multiple constituencies. Special consideration is given to projects targeted to serve older, handicapped, and low-to-moderate income residents. Over the coming seven years the City plans to pursue the projects listed in the table at the end of this section; in the longer term, priorities are to continue to renew neighborhood parks as past rehabilitation projects reach their useful lifetime and to fill missing links in the riverfront path system. On the following pages, each project is described and profiled in relation to the Goals and Objectives set forth in Chapter 8 as well as its role within the overall Medford Open Space system.

All place-specific projects are highlighted on Map 5 – Action Plan. Projects are profiled in the order that they appear in the Action Plan table on the next page.

### Facility Rehabilitation and Protection Projects

Park rehabilitations are part of an ongoing cycle of activity to renew the City's heavily used open space resources. These rehabilitation projects satisfy the following objectives:

0.0 Elevate ability for City to maintain its open space resources.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7 Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.

#### 1. Hormel Stadium Field Improvements

This project builds on the previous work and responds to the significant need for more flexible and resilient playing field space. The recreation area currently provides a playing field for football and soccer and a track. Recreational and fitness programs for neighborhood youth and elders will

be developed in conjunction with this rehabilitation. This project includes the removal of the grass surfacing and the installation of a synthetic turf playing surface. The profile of the field would include subdrainage systems to collect stormwater and provide an opportunity for storage capacity, infiltration, and overflow during major storm events.

Like Riverbend Park, the field and track are an important resource for elders, low, and moderate income residents who live in apartment buildings nearby and are not served by any other neighborhood park.

**Neighborhoods and Populations Served:** The new park is an important neighborhood resource for low and moderate income residents living in Medford Housing Authority's adjacent La Prise Village family housing development. It also serves children from the two schools nearby and supports the youth sports leagues that currently do not have adequate designated fields for play.

#### Objectives Served:

0.0 Elevate ability for City to maintain its open space resources.

1.1. Meet community needs for organized and informal team and individual sports.

1.2. Extend the playing season and minimize use limitations due to wet conditions.

1.5. Find a permanent home field for youth lacrosse.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7 Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

4.1. Deploy stormwater management pilot projects through out the city to improve water quality.

Total Estimated Cost: \$930,000

#### 2. Medford High School Swimming Pool Rehabilitation

Currently the City's only indoor swimming pool is closed, and has been for four years. The facility has reached the end of its useful life and is no longer functioning properly.

The Medford swim team is relegated to using the Tufts University facilities at off hours. Renovating this facility to provide a City-owned pool within one of the City's own facilities would not only provide a "home pool" for the City swim team but also offer a depth of water-based recreation opportunity for residents of all ages and abilities. Swim lessons, family swim hours, lap swim for adults, water aerobics classes for the disabled and elderly are all potential programming and revenue generating activities made possible with an indoor pool facility.

#### Objectives Served:

1.4. Provide a venue for the school swim team.

1.6. Meet the specific needs of children, elders, and people with disabilities.

Total Estimated Cost: \$1.9 million

### 3. McNally Playground

McNally Park is located on Webster Street and is 1.7 acres consisting of one softball field and two play areas. The entire park is in need of complete renovation. The state of disrepair has fostered a lack of respect for the property. Graffiti, broken play features, trash, and broken glass cover much of the site. The ball field is in need of restoration and refurbishment as well. On-street parking must include a designated parking space for handicapped visitors and the park would benefit from an accessible route that accesses all park features. Play features should be consolidated in the southern leg of the property. Site furnishings, edge treatments, and pedestrian lighting would enhance the user experience tremendously.

Neighborhoods and Populations Served: Lawrence Estates Neighborhood.

Total Estimated Cost: \$650,000

### 4. Magoun Playground

Magoun Playground is a neighborhood park whose children's play area was identified for replacement in the 2001 and remains a priority for park-wide improvement. The site should be made universally accessible including play equipment and circulation through the site. The paved courts should

be upgraded for multi-sport use. HP spaces should be designated within the existing on-street parking.

Neighborhoods and Populations Served: Glenwood/Haines Square.

Total Estimated Cost: \$900,000

### 5. Logan Park

Logan Park is located on Otis Street and is 1.3 acres consisting of one tot lot and green space. The play equipment is in significant disrepair as are the other site furnishings. The site is not universally accessible and lacks designated parking spaces on Otis Street and Logan Avenue, an accessible route through out the park and to the play area, play equipment / features, etc. The mature shade trees should be evaluated and pruned to extend their life. Site furnishings such as tables and benches should be replaced and relocated to support the best and highest uses of the park.

Neighborhoods and Populations Served: Wellington Neighborhood.

Total Estimated Cost: \$900,000

### 6. Loconte Rink Recreation Facility Improvements

Loconte Rink is located adjacent to Hornel Stadium, in southeastern Medford. This rink is owned by DCR, but in 2010 the City of Medford assumed management and maintenance responsibility for the facility. As part of that agreement, State funding has been and will be allocated for improvements to the facility. Medford has currently assigned the management of the rink to the Medford High School athletic department.

#### Objectives Served:

0.0 Elevate ability for City to maintain its open space resources.

1.1. Meet community needs for organized and informal team and individual sports.

1.3. Extend playing hours for adult leagues and facilitate Youth League night-time play.

5.2 Facilitate the management of playing fields to protect their condition.

5.3. Leverage permit fees as income for

parks maintenance.

Total Estimated Cost: \$1.5 million

## **7. Continued Development of Brooks Estate as a Cultural and Natural Resource**

The M-BELT should continue with current plans to continue and complete rehabilitation of the estate's historic core landscape and historic buildings on the estate and to manage and maintain the estate's woodlands, pond, and trail system. In the period preceding this Open Space Plan, both the City and M-BELT were instrumental in securing funding to do major rehabilitation of the historic manor house. Going forward, important goals are to identify and program use of the historic buildings, attract visitors, and make the property financially self-supporting.

M-BELT completed a Brooks Estate Master Plan in September 2011, which outlines the priority projects that would be covered by a \$2.3 million bond, as well as the additional work required to reconstruct the Access Drive into the heart of the property from Grove Street, which would require an additional \$1 million. The Master Plan proposes that by prioritizing projects and policies that will garner user and permit fees, the \$2.3 million bond can be repaid in full (including interest) in approximately 20 years. The key elements of the Master Plan include re-use of the Carriage House to host functions, and re-use of the Manor House to support the functions in the Carriage House and to host smaller functions and rentals. Improvements to the Estate Entry and Access Drive (including upgraded underground utilities) will make re-use of the Carriage and Manor Houses feasible. Landscape Restoration will follow these efforts, and will be based on the financial self-sufficiency established by the user & rental fees of the property.

Neighborhoods and Populations Served: Citywide and regional.

Objectives Served:

1.6. Meet the specific needs of children, elders, and people with disabilities.

4.3. Manage the presence of exotic invasive vegetation in ecologically significant landscapes.

4.4. Expand the urban forest canopy.

4.5. Protect water quality and important natural resource buffer areas.

Total Estimated Cost: \$2.5 million (primarily non-public funds and grants)

## **8. Lighting for Baseball Fields at Carr Park and Playstead Playground for Nighttime Play**

This action is to install lighting for night play at Carr Park and/or Playstead Park, helping to meet a Citywide need for playing fields.

Neighborhoods and Populations Served: Citywide resource.

Objectives Served:

1.1. Meet community needs for organized and informal team and individual sports.

1.3. Extend playing hours for adult leagues and facilitate Youth League night-time play.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

Total Estimated Cost: \$350,000

## **9. City-Wide Various Courts Improvements**

Courts through out the parks system are in need of attention. There may be an economy in undertaking the refurbishment of these various courts together in grouped construction contracts. This would also allow the city to upgrade courts at several sites and provide benefit to many neighborhoods at once.

Parks with courts in need of repair include: Magoun Park, Morrison Playground, Hickey Playground, Harris Playground, Dugger Park basketball, Cummings Park, Carr Park,

Neighborhoods and Populations Served: Citywide improvements.

Objectives Served:

0.0 Elevate ability for City to maintain its open space resources.

1.1. Meet community needs for organized and informal team and individual sports.



1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7 Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.

Total Estimated Cost: \$500,000

## 10. City-Wide Various Playing Field Improvements

Playing fields through out the parks system are in need of attention. There may be an economy in grouping the refurbishment of the various playing field locations together into grouped construction contracts. This would also allow the city to upgrade specific facilities at several sites and provide benefit to many neighborhoods at once.

Similar to the Various Courts approach, playing fields across the city would benefit from a variety of improvements including: turf replenishment, infield clay application, fence mesh replacement / fence post painting at backstops and player benches, etc.

Neighborhoods and Populations Served: Citywide improvements.

Objectives Served:

0.0 Elevate ability for City to maintain its open space resources.

1.1. Meet community needs for organized and informal team and individual sports.

1.2. Extend the playing season and minimize use limitations due to wet conditions.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7 Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.

Total Estimated Cost: \$500,000

## 11. City-Wide Irrigation System Improvements

Field irrigation systems through out the parks system are in need of attention. There may be an economy in grouping the refurbishment of these various site locations together into grouped construction contracts. This would also allow the city to upgrade specific facilities at several sites and provide benefit to many neighborhoods at once.

As noted in the Analysis of Needs, field conditions are heavily stressed by summer use, particularly in dry weather. This project would install irrigation systems at Playstead, Harris, Carr, Tufts, and Barry Parks. This will facilitate maintenance of turf and offers the benefit of better and safer playing surfaces.

Neighborhoods and Populations Served: Citywide improvements.

Objectives Served:

0.0 Elevate ability for City to maintain its open space resources.

1.1. Meet community needs for organized and informal team and individual sports.

1.2. Extend the playing season and minimize use limitations due to wet conditions.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7 Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.

Total Estimated Cost: \$75,000/ea

## 12. Morrison Playground

This well-used park offers a wide variety of recreational opportunities through courts, ball field, play area and perimeter walking path. The perimeter iron fence needs to be scraped and painted to preserve this feature. Chain link fencing within the park is rusting and needs to be replaced. Pedestrian and court lighting need to be installed or improved. A vegetation management plan that includes strategic succession for mature shade trees. The courts need to be pulverized and resurfaced as do sections of the perimeter path. The play area is an ideal location in a protected corner of

the park. The play equipment and safety surfacing need to be replaced, however. The parking along Linwood Street should be formalized with a sidewalk and curb to increase pedestrian safety and accessibility. The ball field requires complete refurbishment including the appurtenances and an irrigation system should be considered.

Neighborhoods and Populations Served: East Medford.

Objectives Served:

0.0. Elevate ability for City to maintain its open space resources.

1.1. Meet community needs for organized and informal team and individual sports.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

1.8. Provide a clean, safe, accessible playground for each neighborhood.

4.3. Manage the presence of exotic invasive vegetation in ecologically significant landscapes.

4.4. Expand the urban forest canopy.

5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.

Total Estimated Cost: \$800,000

### **13. Playstead Park: Park Edge Improvements**

This large and heavily used park received playing field improvements over ten years ago. The last round of improvements at this park (estimated 8 years ago) included playground equipment replacement, accessible circulation through out the play area, a shade structure with picnic tables, and perimeter circulation. Improvements include a formal parking area off of Century Street and also at the ball field to facilitate accessible parking and connections to the larger park. Improvements along Playstead Road should include fencing and tree plantings as well as seating.

Neighborhoods and Populations Served: West

Medford and Brooks Estates neighborhoods.

Objectives Served:

0.0. Elevate ability for City to maintain its open space resources.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

1.8. Provide a clean, safe, accessible playground for each neighborhood.

4.4. Expand the urban forest canopy.

5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.

Total Estimated Cost: \$200,000

## **Acquisitions and Improved Access**

### **1.City-wide ADA Compliant Park Improvements**

It is the City's policy to make parks accessible whenever possible. All new park construction and park rehabilitation projects are made fully accessible, including connections to parking, crosswalks, sidewalks, and other points of connection. For existing parks which are not slated for complete rehabilitation there are two main funding routes for accessibility improvements: HUD funding can be used to improve general accessibility and accessible paths of travel for severely disabled adults, but cannot be used for improvements which benefit children. City or alternative grant funds must be identified for this purpose. Funds in the Department of Public Work's budget can be allocated for ongoing maintenance and repair needs related to accessibility, such as refilling mulch safety surfaces, patching rubber safety surfacing, repairing existing play equipment, etc. Through review of the park site assessment forms, the following items were identified as suggested starting points for future rehabilitation and repair projects:

- **Veteran's Memorial Park**

Veteran's Memorial Park is an important location for honoring our veteran's. This park

requires designated HC parking. There are no circulation paths on site so all of the amenities are currently inaccessible. Parking and an accessible pathway network are needed.

- **Barry Playground**

Rehabbed since the last Open Space Plan, fields and courts are still in adequate condition, as is the children's play area. The tennis courts across Gourley Road are not universally accessible and require a crosswalk from the main park, a curb cut, accessible path and entrance.

Neighborhoods and Populations Served: Central Medford.

- **Columbus Park**

Columbus Park is a valuable recreational resource for the adjacent Columbus School, and was fully reconstructed in 2002. The play areas and fields are all in excellent condition. A small parking area to the east of the park on Willis Avenue seems under-utilized and lacks HP spaces, signage, and pathway lighting between the parking area and the park.

Neighborhoods and Populations Served: The park serves a low and moderate income population in South Medford.

- **Victory Park**

Victory Park is located adjacent to the Middlesex Fells Reservation. The rubber safety surfacing at the playground requires repair under the swings which is the most-intensely used area in any play space. Curb-side parking along Winthrop Street and a crosswalk and bike rack at the entrance to the park allow for greater universal access. Improvements should include: identification of a designated HP parking space, maintenance of the stone dust perimeter pathway to remove barriers, isolated repairs to the soccer fields, selected tree removals, and the patching of rubber surfacing under the swings.

- **City-Wide Improvements to Paths of Travel and Accessibility for Severely Disabled Adults**

There are several open space sites that require strategic improvements to achieve universal access. Many of these items would improve accessibility and paths of travel for

severely disabled adults, and would therefore be eligible for HUD funding. Specific scope items include HC curb ramps, cross walks, HP parking spaces near park entrances, barrier-free entrances, and accessible routes to site features. For more detailed information on a site-by-site basis, refer to the Park Assessment forms in Appendix D.

Neighborhoods and Populations Served: City-Wide.

Total Estimated Cost for all: TBD, from 2012-2018.

## 2. Establish Water Taxi System

Both the open space steering committee and members of the community at the public meetings requested access to the water for personal crafts like kayaks and canoes. In addition, the City has explored the merits of implementing a water taxi to connect pedestrians from Medford Square and Station Landing and beyond in either direction. This project would contribute to improving the overall connectivity and vitality of Medford's riverfront.

Neighborhoods and Populations Served: The water access will serve all residents, including low and moderate income people living in the nearby multifamily housing, as well as others around the City.

Objectives Served:

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

2.1. Create a multi-use path system along the Mystic River, Malden River, and Alewife Brook.

2.2. Provide access to the water for pedestrians, personal water crafts, and as an alternative route for transportation.

2.3. Prioritize DCR's Mystic River Master Plan findings and leverage common goals.

Estimated Cost: \$2.8 million.

## 3. Medford Riverwalk Expansion

Completing the river side walkway from the

Mystic Lakes to the Malden River is an important long term goal of this plan, which provides opportunities for both active and passive recreation for adjoining neighborhoods as well as linking these neighborhoods and providing a resource for more distant neighborhoods. Because there are distinct missing links, the project has three components that could be completed as separate projects (see the Analysis of Needs for a description of entire riverfront system and its needs).

- **Riverbend Park to Medford Square Riverfront Access Plan**

While some pedestrian safety improvements have been made, a comprehensive detailed plan is needed for various properties between Riverbend Park and Medford Square. This plan should address ownership, easements, the proposal for a water taxi dock at Clippership Park, and encroachments along this segment of the river and also develop route alternatives where river edge space is limited by other uses. Conceptual designs and feasibility studies are particularly needed for the portion of this segment that fronts on the Ring Road and the path crossing at Main Street in Medford Square. In addition to being an important part of the Riverwalk, parkland in this section offers quiet places to observe the Mystic River, and in Medford Square offers views to historic commercial buildings.

Neighborhoods and Populations Served: This segment is a resource that particularly serves the residents of Medford Square apartment buildings (including the Medford Housing Authority elder apartments directly on this segment) and the neighborhood along Riverside Avenue. It also serves Citywide and regional populations as an important link in the Mystic Riverwalk.

Objectives Served:

- 1.6. Meet the specific needs of children, elders, and people with disabilities.
- 1.7 Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.
- 4.1. Deploy stormwater management pilot projects through out the city to improve water quality.
- 4.2. Restore wetlands within the river buffer

areas to create better ecological function.

- 4.3. Manage the presence of exotic invasive vegetation in ecologically significant landscapes.

- 4.4. Expand the urban forest canopy.

- 4.5. Protect water quality and important natural resource buffer areas.

Master Plan Cost: \$150,000 (depending on level of design)

- **River's Edge: Wellington Greenway and Fellsway Bridge Connection**

This project will connect Wellington Business Center with the Mystic River Reservation parkland extending up the Mystic River to Station Landing and beyond. Rivers Edge Park Phase 1 has been recently completed and Wellington Greenway continues to progress as funding becomes available. Massachusetts Environmental Trust awarded Mystic Valley Develop Commission \$150,000 in 2009 for surveying and permitting of the final section of the greenway, which will connect the existing path (currently terminating at the MBTA railroad bridge) to the Wellington Business Center and River's Edge developments.

Currently the pathway through the Mystic Reservation is missing a link at the Fellsway (Route 28) Bridge. The existing path system upstream of the Fellsway crossing connects at busy Wellington Circle, which is far from the river, at a small footbridge over an inlet of the Mystic River, leading to the sidewalk on the Fellsway close to the river but several hundred feet from the existing signalized crosswalk; the path along the river continues on the downstream side of the Fellsway. Some path users may choose to cross the Fellsway at a dangerous and inappropriate location rather than detour inland to use the signalized crossing. This proposed connection would preferably be developed as an underpass along the river's edge provided with accessible approaches at each end; alternatively, a new path section and footbridge over the inlet could lead the upstream paths directly to the signalized crossing. When the Wellington Greenway segment is in place, this will be a key strategic link in the Riverwalk system.

Neighborhoods and Populations Served:



This segment will connect major commercial development along the Malden River with the Mystic Riverwalk, providing recreational opportunities such as bicycling, running, and walking for fitness and recreation to the hundreds of workers in these office buildings. It also serves the portion of the Wellington neighborhood immediately west of the Orange Line corridor, and is an important Citywide and regional resource.

#### Objectives Served:

- 1.6. Meet the specific needs of children, elders, and people with disabilities.
- 1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.
- 4.1. Deploy stormwater management pilot projects through out the city to improve water quality.
- 4.2. Restore wetlands within the river buffer areas to create better ecological function.
- 4.3. Manage the presence of exotic invasive vegetation in ecologically significant landscapes.
- 4.4. Expand the urban forest canopy.
- 4.5. Protect water quality and important natural resource buffer areas.

Total Estimated Cost: \$500,000 to \$1,000,000

#### 4. Establish Additional Community Gardens

Both the open space steering committee and members of the community at the public meetings requested new community gardens in addition to the existing and wildly successful location in Mystic Riverbend Park near the Andrews and McGlynn Schools. Two more locations are needed to adequately serve the low to moderate income areas of the city as well as residents to the north and west.

Locations for consideration should have adequate sun exposure (minimum 6 hours/day) and proximity to parking to gardeners can bring tools and plants to and fro. Sites that may prove suitable include: Dugger Park adjacent to children's play or basketball, Playstead Park in the southern corner, Thomas Brooks Park in the open field area, and DCR-owned property along the Mystic Lakes and

River.

Neighborhoods and Populations Served: The garden plots will serve elders and other low and moderate income residents living in the nearby multifamily housing, as well as others around the City.

#### Objectives Served:

- 1.6. Meet the specific needs of children, elders, and people with disabilities.
- 1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.
- 3.1. Expand community garden sites within the City to serve more moderate to low income neighborhoods.

Estimated Cost: \$180,000/each new garden

#### 5. Establish Off-Leash Recreation Areas for Dog Owners

During the community meetings, Parks Board hearing, online survey and informal interactions with residents, members of the community requested a formal off-leash recreation area for dog owners. The Sheepfold at Middlesex Fells has been designated as an off-leash recreation area by DCR. A city-owned pilot location away from residential housing, perhaps adjacent to industrial land use or in an under-utilized parcel too small for redevelopment will be explored.

Locations for consideration include land surrounding the Flynn Rink, Playstead Park in the southern most corner if it is not used as a community garden, the Shepherd Brooks Estate, and Thomas Brooks Park within the woodland area,

Neighborhoods and Populations Served: The off-leash recreation area will serve dog owners of all ages and be a community-wide resource.

#### Objectives Served:

- 1.6. Meet the specific needs of children, elders, and people with disabilities.
- 1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.
- 3.2. Provide separate and distinct open

space resources for residents with dogs who are not allowed off-leash in many City parks.

Estimated Cost: \$75,000 each

## **Policies & Programs**

### **1. Fund for Parks Maintenance**

The City should create a Fund for Parks Maintenance that will facilitate the upkeep of its amazing open space resources. This fund may be used to support seasonal staff, purchase specialized equipment for field maintenance, etc.

Neighborhoods and Populations Served: Citywide.

Objectives Served:

0.0. Elevate ability for City to maintain its open space resources.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

1.8. Provide a clean, safe, accessible playground for each neighborhood.

### **2. Safety Inspections**

This action would institute a program for regular safety inspection of all park equipment, probably through use of a consultant contract. The program would notify the Department of Public Works when equipment needs repair or replacement.

Objectives Served:

0.0. Elevate ability for City to maintain its open space resources.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

1.8. Provide a clean, safe, accessible playground for each neighborhood.

### **3. Park Permit Fees**

The City will institute a policy that will give

Medford residents preferred permit fees and priority for Park Permits and Community Schools Programs. This policy will also require that non-residents be charged more for park permit fees, within the guidelines provided by state and federal funding agencies. Also, park permit fees should be deposited into the Fund for Parks Maintenance. Currently the park use permit fees are structured such that Medford Open Youth Leagues pay \$100/league (\$200 for lighted fields/courts), Medford Select Youth Teams pay \$100/team (\$200 for lighted fields/courts), Medford Young Adult Leagues & Teams pay \$25/game (\$50 for lighted fields/courts), and "All Others" (e.g. Fun Sports, Medford Kickbacks, over-30 teams, Boston Ski & Sports, etc) pay \$75/game and \$100 for lighted fields/courts. Field & court scheduling priority is given to teams largely made up of Medford residents. All fees collected go into the general fund.

Objectives Served:

0.0. Elevate ability for City to maintain its open space resources.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.

5.3. Leverage permit fees as income for parks maintenance.

### **4. Commercial Linkage Fees for Open Space**

This action is to study the feasibility and legal basis for commercial development linkage fees to be used for open space improvements and maintenance. The rational nexus for this linkage is that City parks serve business as well as resident populations; employees of businesses in Medford use parks and open space at lunch time and for after-work ball games and activities. Therefore, new commercial development should share in measures to meet increased loads on existing open space as well as to utilize open space improvements as mitigation for development-related impacts that affect overall quality of life.

Objectives Served:

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.

## 5. "Friends Of" Program Development

Friends of Parks programs encourage neighbors and organizations within the City to landscape and care for their neighborhood parks around the City. The program would be managed by the Parks Commission, and would be developed on a site-by-site basis leveraging abutters and interested neighbors.

Objectives Served:

5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.

5.4. Educate the residents as to the resources available through out the city-wide open space system.

5.5. Support programming that supports public art and use of public outdoor venues through out the city.

## 6. Promote Wider Use of the City's Open Space Resources

A city-wide map or series of maps that highlight open space resources, biking routes, water access opportunities and a key that identifies which recreational activities are available at each open

Space location will educate the community and promote wider use.

Objectives Served:

5.4. Educate the residents as to the resources available through out the city-wide open space system.

5.5. Support programming that supports public art and use of public outdoor venues through out the city.

## 7. Historic Walking Tours

This action would encourage a volunteer

group to develop a self-guided historic building walking tour originating in Medford Square. The City could help publicize this effort which would encourage people to use the streets and sidewalks in combination with historic resources to help connect and enrich the overall open space system.

Objectives Served:

5.4. Educate the residents as to the resources available through out the city-wide open space system.

5.5. Support programming that supports public art and use of public outdoor venues through out the city.

## 8. Citywide Street Tree Inventory

This action would encourage a volunteer effort to update the previous inventory of street trees within the City. The inventory update would serve as a basis for a Citywide tree planting and maintenance effort. Information such as location, species, caliper size, crown size and condition would be collected and mapped by volunteers. Similar efforts in Brookline and Newton have been successfully conducted by volunteers over a series of weekends. Data can be organized as a layer in the City's GIS system and used for management and maintenance as well as planning.

Objectives Served:

4.4. Expand the urban forest canopy.

4.3. Manage the presence of exotic invasive vegetation in ecologically significant landscapes.

4.5. Protect water quality and important natural resource buffer areas.

## 9. Community Preservation Act

The Community Preservation Act (CPA) is a Massachusetts law that provides communities with a funding mechanism to acquire and preserve open space, historic resources, affordable housing, and outdoor recreation in their city or town. Medford may consider exploring this tool as a funding option at a future date.

In order to receive state funding, a Massachusetts city or town must first adopt the

plan summary

introduction

community setting

environmental inventory

inventory of lands

community vision

analysis of needs

goals and objectives

seven year action plan

public comments

references

Community Preservation Act. Then, communities institute a property tax surcharge of up to 3% (subject to some exemptions), whose revenues contribute to the town CPA fund. On a yearly basis, these CPA communities receive state matching funding, which is generated by the deed recording fee at the Massachusetts Registry of Deeds. These two sources --the local property tax surcharge and the state match-- combine to form a city or town's community preservation fund.

CPA cities and towns may spend their CPA money in the following categories: Open Space, Historic Preservation, Affordable Housing and Outdoor Recreation. The Act requires the legislative body to annually appropriate, or reserve for future appropriation, at least 10% of the estimated annual fund revenues for projects in open space (excluding recreational uses), historic resources, and affordable housing. The Act describes in detail these allowable uses, conditioning what projects are eligible for CPA funding.

Communities must adopt the Act by ballot referendum, whose ballot language must include the percent surcharge (up to 3% of property taxes) to be imposed. Once adopted, the community is required to establish a Community Preservation Committee composed of 5-9 members. Members represent various boards in the community, and recommend to the community's legislative body how to spend Community Preservation funds.

To date, 148 cities and towns have adopted the Community Preservation Act. The number of communities participating in the program has risen concurrently with a decline in revenues collected at the registry of deeds. The increase in number of CPA communities combined with a decrease in the state trust fund revenues has caused the state match rates to decrease over time. The match rate refers to how the state funds granted to communities compares with their locally raised funds. Distributions from 2002 to 2007 were at a match rate of 100%. In FY2009, the distribution fell below 100% for the first time, matching 78% of the local surcharge revenue. In FY2010, the average match rate was 47%, and in 2011, 15%.

#### Objectives Served:

0.0 Elevate ability for City to maintain its open space resources.

1.1. Meet community needs for organized and informal team and individual sports.

1.4. Provide a venue for the school swim team.

1.5. Find a permanent home field for youth lacrosse.

1.6. Meet the specific needs of children, elders, and people with disabilities.

1.7. Provide each neighborhood with a safe open space that provides multi-generational opportunities for recreation.

1.8. Provide a clean, safe, accessible playground for each neighborhood.

2.1. Create a multi-use path system along the Mystic River, Malden River, and Alewife Brook.

2.2. Provide access to the water for pedestrians, personal water crafts, and as an alternative route for transportation.

2.3. Prioritize DCR's Mystic River Master Plan findings and leverage common goals.

3.1. Expand community garden sites within the City to serve more moderate to low income neighborhoods.

3.2. Provide separate and distinct open space resources for residents with dogs who are not allowed off-leash in many of the City's parks.

4.1. Deploy stormwater management pilot projects through out the city to improve water quality.

4.2. Restore wetlands within the river buffer areas to create better ecological function.

4.3. Manage the presence of exotic invasive vegetation in ecologically significant landscapes.

4.4. Expand the urban forest canopy.

4.5. Protect water quality and important natural resource buffer areas.

5.1. Improve the overall quality of Medford's existing inventory of open spaces and facilities.



Action Plan Summary Table		Potential Funding Sources	Year	Cost
<b>Facility Rehabilitation and Protection Projects</b>				
1.	Hormel Stadium Field Improvements	PARC Grant w/City match	2011	\$930,000
2.	Medford High School Pool rehabilitation	City	2012-2013	\$1.9 million
3.	McNally Playground: full park rehabilitation	PARC	2014	\$650,000
4.	Magoun Playground: full park rehabilitation	PARC	2016	\$900,000
5.	Logan Playground: full park rehabilitation	PARC	2016	\$900,000
6.	Loconte Rink recreation facility improvements	City/State	2014	\$1.5 million
7.	Continued Development of the Brooks Estate as a Cultural and Natural Resource	MBELT/DCR Grants/City	2012-2021	\$2.5 million
8.	Field Lighting at Carr Park & Playstead for night baseball play	Little League /City	2014	\$350,000
9.	City-wide Various Courts Improvements: crack repair, color sealcoat, resurface, replace appurtenances, etc.	City	2014	\$500,000
10.	City-wide Various Playing Field Improvements: turf, soil compaction, striping, replace appurtenances, etc.	City	2016	\$500,000
11.	City-wide irrigation system installation/improvements at Playstead, Harris, Carr, Tufts, and Barry Parks.	City	2015	\$75,000 ea
12.	Morrison Playground: park rehabilitation	City/PARC	2016	\$800,000
13.	Playstead Park: Park Edge Improvements along Playstead Rd.	City/CPA	2017	\$200,000
<b>Acquisitions and Improved Access Projects</b>				
1.	City-wide improvements to paths of travel and accessibility for severely disabled adults	HUD	2012-2018	TBD
2.	Establish Water Taxi System: Water Taxi Stops at Clippership Park & Condon Shell with intention of future expansion to Riverbend Park & Station Landing.			
	- Phase 1 for water taxi, first dock, and related improvements	City/State	2013	\$800,000
	- Phase 2 to Completion	City/State/Federal	2016	\$2 million
3.	Medford Riverwalk Expansion			
	- Riverbend Park to Medford Square Riverfront Access Plan	City/State	2012	\$150,000
	- Wellington Greenway Project and Fellsway (Route 28) Pedestrian Bridge Connection	State + Private	2012-2018	\$500,000 - \$1 million
4.	Establish Additional Community Gardens at Playstead & Thomas Brooks Parks	City	2013	\$180,000/ea
5.	Establish Off-leash Recreational Areas for Dog Owners at Hormel	City	2012	\$75,000/ea
<b>Policies and Programs</b>				
1.	Funds for Parks Maintenance	City	2011-2018	
2.	Park / Playground Safety Inspections	City	2012	
3.	Park Permit Fees	City	2012	
4.	Commercial Linkage Fees for Open Space	City	2014	
5.	Evaluation / Formalization of "Friends Of" Programs	City	2014	
6.	Promote Wider Use of City Open Space Resources	CPA	2015	
7.	Historic Walking Tours	Volunteer	2016	
8.	City-wide Street Tree Inventory Update	DCR	2017	
9.	Community Preservation Act	City	2012 - 2013	

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## 10. Public Comments

A draft of the Open space Plan was posted on the City's website on May 1st, 2012 for public review. The plan's availability was advertised in the Medford Mercury, posted in the City Clerk's Office and sent to members of the Medford City Council and the Medford Board of Health. Copies of the Draft Plan were also sent to the members of the Medford Community Development (Planning) Board, Conservation Commission, Park Board and the Metropolitan Area Planning Council and the plan was presented to and endorsed by the Community Development Board on May 16th 2012.

Comment letters were submitted by Mayor McGlynn, Medford Community Development Board, the Medford Conservation Commission, the Metropolitan Area Planning Council, in addition to Medford residents Kenneth Krause and Carolyn Rosen and William Wood. All comments have been noted and referred to the relevant parties where appropriate. A response to the disability referenced comments on the open space plan has been provided by the City's ADA coordinator and is included with all comment letters in Appendix F.

Thanks also to John DePriest of the Community Development Board, Tom Lincoln of MBELT and Carey Duques, Director of Environment for their editorial reviews of the document.



# 11.

# references



## 11. References

Chase et al, Massachusetts Division of Marine Fisheries. (November 2010). Massachusetts Division of Marine Fisheries Technical Report TR-44 - River Herring Spawning and Nursery Habitat Assessment: Upper Mystic Lake, 2007-2008. Retrieved from [http://www.mass.gov/dfwele/dmf/publications/tr\\_44.pdf](http://www.mass.gov/dfwele/dmf/publications/tr_44.pdf)

Lincoln, Tom. Personal communication. President of Medford-Brooks Estate Land Trust (M-BELT).

Commonwealth of Massachusetts Department of Conservation and Recreation. (November 2009). Mystic River Master Plan.

Commonwealth of Massachusetts Department of Environmental Protection. (June 2002). Source Water Assessment and Protection (SWAP) Report - Massachusetts Water Resources Authority (MWRA), Quabbin Reservoir, Ware River and Wachusett Reservoir. Retrieved from <http://www.mass.gov/dep/water/drinking/6000000.pdf>

Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs. (August 2008). Massachusetts' 28 Watersheds Map. Retrieve from [http://www.mass.gov/Eoeea/docs/eea/water/watersheds\\_map.pdf](http://www.mass.gov/Eoeea/docs/eea/water/watersheds_map.pdf)

Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs, Environmental Justice Policy. Retrieved from [http://www.mass.gov/?pageID=eoeeterminal&L=2&L0=Home&L1=Grants+%26+Technical+Assistance&sid=Eoeeea&b=terminalcontent&f=eea\\_sgse\\_env\\_equity&csid=Eoeeea](http://www.mass.gov/?pageID=eoeeterminal&L=2&L0=Home&L1=Grants+%26+Technical+Assistance&sid=Eoeeea&b=terminalcontent&f=eea_sgse_env_equity&csid=Eoeeea)

Commonwealth of Massachusetts Office of Geographic Information (MassGIS), <http://www.mass.gov/mgis/>

Commonwealth of Massachusetts Executive Office of Labor & Workforce Development. (April 25, 2011). Employment and Wages (ES-202) data. Retrieved from [http://lmi2.detma.org/lmi/lmi\\_es\\_a.asp#IND\\_LOCATION](http://lmi2.detma.org/lmi/lmi_es_a.asp#IND_LOCATION)

Commonwealth of Massachusetts Department of Revenue, Division of Local Services. Labor Force and Unemployment Rates 1990 to present. Retrieved from <http://www.mass.gov/Ador/docs/dls/mdmstuf/Socioeconomic/labr0009.xls>

Commonwealth of Massachusetts Department of Revenue, Division of Local Services. Parcel Counts by Property Class. Retrieved: <http://www.mass.gov/Ador/docs/dls/mdmstuf/PropertyTax/prcl10.xls>

Metropolitan Area Planning Council, <http://www.mapc.org>

Metropolitan Area Planning Council. MetroBoston DataCommon. Retrieved from <http://maps.geocortex.net/imf-5.2.2/imf.jsp?site=mpc>

Metropolitan Area Planning Council. (May 2008). Metro Future Regional Plan.

City of Medford. (2001). Medford Open Space Plan.

City of Medford. (November 2005). Medford Square Master Plan.

The Medford Historical Society, <http://medfordhistorical.org>

Morris, Dee. Personal communication. Medford resident and local historical author.

Mystic River Watershed Association, <http://mysticriver.org>

National Recreation and Park Association. (2012). 2012 Parks and Recreation National Database Report. Retrieved from <http://www.nrpa.org>

Rosen, Carolyn. Personal communication and review of accessibility assessment/recommendations. Local activist and accessibility advocate.

U.S. Census Bureau. United States Census 2000. Retrieved from <http://www.census.gov/>

U.S. Census Bureau. American Community Survey 2005-2009. Retrieved from <http://www.census.gov/acs/www/>

U.S. Environmental Protection Agency (2010). 2010 Mystic River Watershed Report Card FAQs. Retrieved from <http://www.epa.gov/mysticriver/pdfs/MysticGradeQA.pdf>

U.S. Environmental Protection Agency. (2010). Mystic River Watershed Receives D- for 2010. Retrieved from <http://www.epa.gov/mysticriver/index.html>

U.S. Department of Housing and Urban Development. (2011). Low to Moderate Income Estimates. Retrieved from <http://www.hud.gov/offices/cpd/systems/census/ma/index.cfm>

United States National Arboretum. (2003). USDA Plant Hardiness Zone Map. Retrieved from <http://www.usna.usda.gov/Hardzone/hzm-ne1.html>

Wood, William. Personal communication and review of accessibility assessment/recommendations. Local activist and accessibility advocate.

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