ENHANCING REGIONAL GREENFRASTRUCTURE

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WORKING PAPER JULY 22, 2003

RAPPAPORT INSTITUTE FOR GREATER BOSTON JOHN F. KENNEDY SCHOOL OF GOVERNMENT HARVARD UNIVERSITY



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At a time when Massachusetts is considering a wide range of new policies to promote "smart growth," the state has eliminated a historic regional body for managing the system of regional parks in Greater Boston. The problems of the Metropolitan District Commission could provide important lessons for the state in developing new systems to manage reservations, parkways, and recreation facilities.

By Mark Leccese

The Metropolitan District Commission – the state entity that for more than a century managed hundreds of parks, riverways, parkways, and reservations in thirty-seven cities and towns in the core of Greater Boston – in recent years has presented two distinct faces to the public. As the administration of Governor Mitt Romney integrates the commission into the Executive Office of Environmental Affairs, the test is whether the most positive aspects of the MDC can be enhanced while the problems can be overcome.

The first face of the MDC can be seen when millions of people make use of the system's resources throughout the year, especially during weekends, holidays, and warm-weather months.

On the weekend of September 23 and 24, 2002, for example, the MDC system offered outdoor recreation opportunities to hundreds of thousands of people – from rollerbladers on the Charles River Esplanade in Boston to picnickers at the Quabbin Reservoir in Western Massachusetts, from bicyclists at the Breakheart Reservation in Saugus to hikers in the Blue Hills in Milton. That weekend, the MDC issued permits for 17 large events, primarily along the Charles River, that attracted more than 100,000 people. Crowds flocked to Castle Island in South Boston, to the MDC-run Boston Harbor beaches, to softball fields and tennis courts, to playgrounds, and the MDC's two 18-hole golf courses. MDC officials estimate more than 500,000 people – and perhaps as many as a million – used the regional park system and its facilities on that early fall weekend. As many as three million people drove along the MDC's 162 miles of parkways, enjoying rides along roads more pleasant than the typical arterial or highway.

The MDC system also provided an essential web of complex ecologies. The network of parks along the area's three major rivers (the Charles, the Mystic, and the Neponset) help keep the waterways clean and mitigate the pollutions of the area's watersheds. Trees and plant life in the metropolitan park system remove carbon dioxide and other contaminants from the air. The parks serve as an urban sanctuary for birds and other wildlife.

The MDC's rich collection of open spaces could also play a vital role in the state's strategy to confront development sprawl over the next generation. In the last decade, the MDC was aggressive in acquiring new land to add to its system – over 2,000 acres in the last decade. Open-space acquisitions are considered essential to any effort to concentrate housing and commercial development as part of a "smart growth" policy.

The other face of the MDC is less positive. The last four governors – William F. Weld, A. Paul Cellucci, Jane M. Swift, and now W. Mitt Romney – called for the commission's abolition. Local media regularly attack the MDC with reports of patronage, inside dealing on property acquisitions, and poor management. Governor Romney and his predecessors argue that the MDC's functions can be managed better as part of a larger state system – in effect, that a separate body within the state's bureaucracy, with its own governance structure, is duplicative and wasteful.

MDC officials and their supporters agree with much of the criticism, but also point out that budget cutbacks and legislative interference has prevented the agency from effectively maintaining and managing the park system. Their argument on behalf of the MDC is simple: The commission was once the envy of parks and open-space planners across the world and could be again with the appropriate leadership, management reforms, and funding.

Soon after his inauguration in 2003, Governor Romney fired Commissioner David Balfour and called for the MDC's abolition. Romney said the MDC was a prime example of the problems he highlighted in his campaign for the Corner Office – poor management, patronage, and duplica-

MAKING THE TRANSITION

Below are members of the transition team that is planning how to incorporate the Metropolitan District Commission into the Executive Office of Environmental Affairs.

Steve Pritchard, chief operating officer, EOEA
Betsy Shure Gross, special assistant for community preservation, EOEA
Julius Babbitt, human resources director, EOEA
Peter Webber, commissioner, Department of Environmental Management
Susan Frechette, deputy commissioner of resource conservation, DEM
Todd Fredrick, director of forests and parks, DEM
William McKinney, acting commissioner, MDC
Sam Overton Bussell, deputy commissioner of policy, MDC
Bernadette O'Malley, director of intergovernmental relations, MDC
Joe McGinn, director of watershed management, MDC

tion and overlap of government services - and would become the first and most visible agency to be terminated. Romney said the MDC's parks and recreational facilities would be managed by a new Metropolitan Parks Bureau, which would be located in the new Division of Conservation and Recreation in the Department of Environmental Management. The MDC's parkways would be run by a parkways bureau within the state's transportation

office. The Massachusetts legislature rebuffed previous efforts to eliminate the MDC, but the state's multi-billion-dollar fiscal crisis and the MDC's political isolation ultimately doomed the commission in the 2003 legislative session.

Top EOEA officials, headed by Betsy Shure Gross, are developing management systems to integrate MDC functions into EOEA. A special transition committee is developing at least two options for integrating the MDC into EOEA as a new urban parks agency. The new management

system will seek to create consistent budgetwork tracking systems, labor management policies, and strategies for engaging private and nonprofit groups in the funding and management of the MDC's parks. Gross states: "The MDC as an entity is gone, but the metropolitan parks and its relations to its users, to cities and towns, and its original vision as a regional system - is in tact. We want to merge the tools of the MDC with the rest of the state's environmental systems but protect the MDC's resources as a system."

While the General Court considered Governor Romney's reorganization plan, a number of legislative proposals emerged that

MDC AND DEM: SEPARATE ENTITITES

The functions of the Metropolitan District Commission and the Department of Environmental Management have always been distinct, even if they frequently overlap. The MDC's park system may be thought of as the urban component of a statewide park system. The MDC serves significantly different populations and provide significantly different recreational opportunities than the DEM, which manages all the state's parkland outside of the MDC district.

The MDC's parklands were chosen and developed to be easily accessible by public transportation and to offer opportunities for active recreation, from swimming pools to golf to softball. The DEM's parks and reservations offer dozens of camp sites (which, except for the Blue Hills, even the largest MDC reservation do not). The DEM's first priority is conservation.

While the MDC began its existence as the Metropolitan Park System – with the emphasis on "metropolitan" and "park" – the DEM was founded as the Office of the State Forester and later changed its name to the Department of Conservation. That emphasis on preserving forest land remains today – the DEM, created in 1972, has nine bureaus within its Division of Resource Conservation and one Bureau of Recreation.

While the MDC has seven parkland reservations – wooded conservation areas – the DEM has more than 200 state parks and reservations encompassing about 300,000 acres. The most popular uses of the DEM's reservations are camping and hiking. Twenty-seven DEM reservations offer camping (including trailer parks) and more than 50 offer hiking trails. Some DEM reservations even offer hunting. But even the seven large MDC reservations, including Beaver Brook and Blue Hills, offer ball fields, bicycle paths, and walking paths. The most popular uses of MDC parklands and reservations are short visits for active recreation, picnicking, and strolling.

would chip away pieces of the MDC system – exactly the neither-here-nor-there situation that regional parks advocates fear the most. State Senator Brian Joyce has proposed that his home town of Milton assume control of Houghton's Pond in the Blue Hills Reservation and the Max Ulian Rink under a renewable ten-year lease. The town would also oversee a parking lot and several playing fields. Joyce calls the proposal a "sensible way to improve the condition and management of these facilities, [which] have the potential to generate revenue for park and recreation activities throughout the town." Such a local taking from a state system of open space, however, could undermine the continuity of important environmental spaces, create an even more fragmented system of maintenance, and, worse of all, exclude non-Milton residents from resources that were designed for the use of all state residents. Joyce's bill is just one of numerous bills on Beacon Hill that would claim a piece of the once-vaunted metropolitan system for local purposes.

Perhaps even more important than the specific fate of the MDC was Romney's naming of Douglas Foy, a longtime environmental activist, as the new "super secretary" for development in the Commonwealth. Foy has long called for comprehensive state policy to coordinate development, transportation, and environmental affairs. Foy has aggressively taken charge of the state's housing and community development, transportation, and environmental affairs, developing interagency working groups and special task forces to better coordinate policy pertaining to the manmade and natural environments. The development of better systems of coordination – information databases, cooperative planning efforts, streamlined regulatory processes – could

transform the way important issues are managed in the Commonwealth. The MDC's successor agency could play a central role in that strategy.

EVOLUTION OF THE REGIONAL SYSTEM

Supporters say that if the Metropolitan District Commission had not already existed, it might be invented as part of a strategy for coordination of regional development in Greater Boston.

The entire metropolitan park system sits within a 15-mile radius of downtown Boston in a top-ographical basin, known as the Boston Lowland Most of the Lowland rises to no more than 50 feet above sea level, which once mainly consisted of marshes and alluvial plains. Its principal rivers are the Charles, the Mystic, and the Neponset, all of which flow into Boston Harbor. Each river has miles of tributaries.

The combination of topography and geology make much of the Lowland watershed areas, which increases the importance of protecting these areas by preserving open space. To the northwest of Boston rises the Fells Upland, which extends from Waltham to Swampscott and rises from 100 to 300 feet above sea level. To the southwest is the Needham Upland. A hilly area without the overall steepness of the Fells Upland, the Needham Upland still reaches 300 feet above sea level in places. To the south are the Blue Hills, with a base elevation 326 feet above sea level and its peak at 635 feet. The cohesive topography and geography of the Boston Lowland create a natural setting for a park system, and because rivers, parklands, and watershed cross municipal boundaries, the metropolitan park system was created as a regional entity.

Over the past 110 years, the MDC has worked to acquire, develop, and maintain a park system that supersedes artificial boundaries but respects the limits of the Boston Lowland. From 6,000 acres of open space at the turn of the century, the metropolitan park system now comprises more than 16,000 acres.

Within two years of its founding in 1893, the Metropolitan Parks Commission (the forerunner of the MDC) had acquired 6,000 acres of parkland. It would take 75 years to acquire another 6,000 acres. The first purchases of the Metropolitan Park Commission were reservations: Blue Hills (4,000 acres), the Middlesex Fells (1,600 acres), Stony Brook (500 acres), and Beaver Brook (60 acres). By 1900, the commission had purchased from cities and towns another 1,800 acres of land along the Charles, Neponset, and Mystic Rivers – and had built 12 miles of parkways.

In the next decade, most of the commission's acquisitions were contiguous to, and added to, those reservations and parklands, so that in 1910 the commission owned 9,400 acres. Little land was added to the commissions holdings over the next thirty years, until the purchase of the Breakheart Reservation and more land at Blue Hills and along the Charles River in the 1940s raised the acreage of the owned by what was now to Metropolitan District Commission to 11,400

Within two years of its founding in 1893, the Metropolitan Parks Commission (the forerunner of the MDC) had acquired 6,000 acres of parkland acres. Meanwhile, the miles of parkways, with the increasing popularity of the automobile, increased to 46 in 1920, 103 in 1930, and 119 in 1946.

In the 1930s, 1940s, and 1950s, the focus of the MDC shifted away from parkland and to its water and sewer service. In those decades, in fact, the metropolitan park system suffered some significant losses. A small Olmsted-designed reservation in East Boston was paved over in the 1930s for the expansion of Logan Airport. In 1948, the state took parkland

along the Charles River to construct Storrow Drive. In 1954, Sears Roebuck and Company persuaded the MDC to give the company several acres of the Back Bay Fens, and the company paved over a portion of the Muddy River and its riverway to build a parking lot. Later in the 1950s, the state build an automotive overpass at the Charlesgate section of the Back Bay Fens,

where the Muddy River feeds into the Charles River.

After World War II, users of the metropolitan park system began to demand more than the Eliot-Olmsted vision allowed. Users began seeking more facilities for active recreation - ball fields, skating rinks, swimpools, courts, and the like. The call for active recreational facilities has accelerated in the past 25 years - which the MDC's director of planning, Julia O'Brien, attributes it to two societal trends. "The first is health," O'Brien said. "The emphasis health and outdoor activity really hit the Baby Boom generation, and that spilled over into the older generation." The second is environmental education, which O'Brien

HISTORIC PRECURSORS OF METRO PARKS

Nobles in Persia, Egypt, Greece, and Rome preserved large tracts of open space for hunting and scenic enjoyment. But it was not until the 19th century that governments began setting aside park land for the enjoyment of the public.

Precursors to public park land were set aside as early as the 17th century. In the American colonies of British crown, the city of Boston in 1634 set aside the Boston Common as for the grazing of cows and for use by the young town's citiens. Other New England cities and towns in the decades following created their own commons. The Massachusetts Bay Colony, in 1641, decreed that all bodies of water in excess of 10 acres be open in perpetuity to the public for fishing and hunting – an act that was the forerunner of modern state park legislation.

In France, the nobility began allowing the public use of portions of the palace-court lands; Marie de Medici opened the grounds of Luxembourg Palace for public enjoyment. In the 1830s and 1840s, the French and British crowns dedicated open spaces in London and Paris for public use. The swath of parks in London – including Kensington Gardens, Hyde Park, and Regents Park – offered places to stroll, take in the air, enjoy the surroundings, and meet friends and acquaintances. In Paris, the Champs Elysées, the Cours la Reine, and the Parc Monceau fulfilled the same purposes. The Botanic Gardens in Melbourne, Australia and Akashi Park in Kobe, Japan, were also created in the mid-19th century.

In 1811, when the Manhattan Island Commissioners of Streets and Roads unveiled their land use plan, they called for at least seven "squares" or "parade grounds" to be left as open space in the island. The Battery and Washington Square Park remain from this plan. In 1835, New York City began acquiring the land for Central Park, the first great passive-use park in the United States. The designer, Frederick Law Olmsted, saw Central Park as one in a series of parklands that would stretch from Manhattan to Brooklyn. Central Park lay on what was then the outskirts of Manhattan; the city grew around the park.

calls "an educational thrust in the schools with an emphasis on environmental science and on getting out and doing a lot of hands-on work."

The MDC responded to the call for creating facilities for active recreation, and now "we probably teach more kids how to swim and how to skate than any organization in the state – and those are all life sports," O'Brien said. Still, an MDC survey found the leading uses of Charles River Basin park land to be "walking, jogging, biking, picnicking – being outdoors for pleasure in what we could call a passive, unorganized way," O'Brien said. "That range of activities are still the most popular."

It was not until the maturation of the environmental movement in the late 1970s and early 1980s that the MDC – and green space advocates – were able to halt the transfers of parkland to non-park uses and begin acquiring open space and creating new parklands. In the 1980s, the MDC acquired 1,850 acres of new open space for parks, and the 1990s saw the creation of the 5.5-mile Southwest Corridor Park in Boston.

A legislative committee headed by Administration and Finance Secretary L. Edward Lashman brought about the consolidation of the police forces. The stated purpose of the merger was to bring the four police departments under a single aegis and achieve whatever cost savings. Lash-

PARKS IN MASSACHUSETTS HISTORY

Greater Boston was already densely developed when civic leaders organized a late-19th-century movement to acquire land for public parks. Charles Eliot and Sylvester Baxter spearheaded a drive to claim large tracts of open space on the verge of development.

Addressing the legislature in 1891, Eliot said: "The seashores, the river-banks, the mountain-tops, and almost all of the finest parts of the natural scenery of Massachusetts are possessed by private persons, whose private interests often dictate the destruction of said scenery or the exclusion of the public from the enjoyment thereof. The scenes of natural beauty to which the people of the Commonwealth are today of right entitled to resort for pleasure and refreshment are both too few in number and too small in area."

Cities and towns in eastern Massachusetts had established park commissions, created after the legislature approved a Park Act, to acquire and maintain park land for the public in their communities. But Eliot and Baxter saw severe limits to local parks and had a grander vision of a regional park system.

Eliot explained the imperative for a regional park system in his speech to the legislature: "It has been pointed out that the location of large public reserves should be determined chiefly with reference to the inclusion therein of the finest scenery of each region or district. Now, the Park Act limits the field of action of our park commissioners to the bounds of their respective towns and cities, while it is self-evident that these boundaries bear no relation to the scenery of the district they divide. Indeed, the boundaries of our towns are very apt to bisect the prettiest passages of scenery, as where the line follows the channel of a river or brook the banks of which are beautiful."

On June 3, 1893, the legislature formed the Metropolitan Park Commission to create and maintain a metropolitan park system – the first in the United States. Public demand required a printing of 9,000 copies of the law, making it an unusual kind of best-seller.

With Eliot at its head, the Commission, used state bonds to acquire land. By the time Eliot died, at the age of 37, in 1897 the Commission had purchased more than 7,000 acres of land, including the Blue Hills Reservation; the Beaver Brook/Waverly Oaks reservation in Belmont, Watertown and Waltham; the Middlesex Fells Reservation in Baxter's native Malden, and Medford, Winchester, Stoneham, and Melrose; the Stony Brook Reservation in the southern part of Boston; much of the banks of the Mystic and Neponset Rivers, and nearly seven miles of riverfront land along the Charles River, bringing the total of public land along the river to 17 miles. By the turn of the century, the Commission had acquired almost 10,000 acres and had established 16 reservations. More than one hundred miles of parkways – streets and roads controlled by neither a municipality or the state – were constructed in and alongside Park Commission property. It even had its own police force, the Metropolitan Police, formed in 1894 as the first environmental law enforcement group in the country.

In 1919, Governor Calvin Coolidge combined the Metropolitan Water and Sewer Commission with the Metropolitan Park Commission. The newly constituted Metropolitan District Commission now oversaw not only the regional park system of Greater Boston, but also the water and sewer system. The MDC flooded a valley of several small towns in western Massachusetts and built the largest earthen dam in the world to create the Quabbin Reservoir – at more than 400 million gallons, is the world's third-largest man-made reservoir. The Quabban pumps 3 million gallons of drinking water a day to Greater Boston. The MDC oversees the whole Quabbin watershed, the area around the reservoir in the central Massachusetts city of Clinton, as well as the Sudbury Reservoir watershed area created in 1878, which serves as a backup water supply.

man now acknowledges that the savings were minimal. "There wasn't much to be saved," he said, "because police work still requires police officers out patrolling."

The battle over the consolidation was fought primarily between the MDC Police and its supporters (who opposed the plans) and the State Police and its supporters (who favored it). Lobbyists for the State Police on Beacon Hill argued that its force was undermanned, while the MDC Police had a surplus of officers. MDC critics also pointed to a 1980s scandal that involved the

selling of the answers to police promotion exams. Critics also said the MDC Police did a poor job of gaining the convictions of accused drunk drivers; in 1987, the drunk driving conviction rate for the MDC Police as 64 percent, compared to an 80 percent average for municipal police forces and am 84 percent conviction rate obtained by the State Police.

That the MDC Police might have had special knowledge and experience in patrolling a metropolitan park and parkways system was not a consideration of the consolidation plan, Lashman

said. "The Dukakis theory was that a police officer is a police officer and can be trained to use those skills in any area. I would argue that you can train a police force to do anything."

John Sears, MDC commissioner from 1970 to 1975, disagrees. He saw the MDC Police as an important part of the metropolitan park system. As MDC officers patrolled, they noted and reported maintenance issues, ranging from overflowing trash cans to the deterioration of parkways, a bridges, buildings, and dams. Sears described the MDC police as part of what he called an MDC "ecosystem" in which the various department of the MDC, including its police force, worked together to maintain the metropolitan park system.

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In 1991, after Weld vetoed \$9 million dollars earmarked for the fiscal year 1992 funding of the MDC and Registry Police, the legislature approved a measure putting those two, along with the Capitol Police, under the jurisdiction of the State Police. Nearly all of the officers from the three forces that were eliminated became State Police troopers.

In recent years, the MDC lost its political standing and organizational capacity to pursue its full mandate of expanding holdings, maintaining existing facilities, and operating popular programs.

While city and town officials usually guard their local prerogatives jealously on other issues like housing and transportation, they have not questioned the need for a regional park system in recent years. In fact, many of the complaints of local officials are that the MDC does not plan an active enough role in managing the regional parks system. Even detractors acknowledge that some kind of coherent regional management is essential to meet the environmental and recreational needs of the region's people.

THE MDC'S HISTORIC MANDATE

To understand the potential of the state's new metropolitan parks agency, it is essential to break down the MDC's original mandate. Essentially, the MDC was created to perform three basic tasks: Provide recreational opportunities for an urban population, manage a regional system of environmental spaces, and manage the region's water and sewer services and infrastructure.

MISSION 1: RECREATION FOR URBAN POPULATIONS

The primary vision for the metropolitan parks system was to provide a natural idyll for residents to get away from the hustle and tensions of urban life. Charles Eliot and Frederick Law Olmsted created a vision based on large-scale, connected systems that provided places for passive recreation – walking, picnicking, and simply enjoying the beauty of the preserved landscape. In its argument for a new Metropolitan Parks Commission in 1891, the Boston Parks Commission, of which Charles Eliot was secretary, urged the creation of "scenes of natural beauty" to which urban residents could "resort for pleasure and refreshment."

While 31 percent of the population of Massachusetts lives in the MDC district, the same communities are home to fully half of the state's non-white population. The commission's urban mission can be seen in a summertime visit to the banks of the Charles River in Brighton, when the grassy areas become an urban beach, or to any of MDC swimming pools. The MDC's parks and facilities have always been a refuge for urban minorities and for low- and moderate-income people who do not enjoy the luxuries of a second house on the Cape or even two summertime weeks at Lake Winnipesaukee.

That is precisely how its founders envisioned the metropolitan park system. It their 1893 Report of the Board of Metropolitan Park Commissioners – which included the legislation that established the park system – Charles Francis Adams and his fellow commissioners wrote that with the creation of a metropolitan park system would provide a new service the poor did not yet enjoy: "The summer – the period of heat and out-of-door life and enjoyment – is the season of the year when all feel the need of open air reservations; [once] the luxury of the rich, these then become the right, as well as the necessity, of the poor." Sylvester Baxter, who wrote the body of the commission's report to the legislature, called attention to the rapidly increasing density of the population in metropolitan Boston. "Every where throughout the metropolitan district where a five-cent streetcar or steam-railway prevails ... huge, barrack-like 'apartment houses,' so called, are becoming the rule. They are closely built, with little or no round space about them, so that the family clothes-lines are strung upon the roofs." In densely populated areas, Baxter argued, large parks systems offer essential opportunities for escape and recreation.

While the southern portion of metropolitan Boston was well provided with open space, the northern portion had little parkland. Baxter asked "why a certain portion of the population should be so favored, while the other portions were entirely without the needed facilities?

Significant progress has been made in the water quality of the MDC's three major rivers. The Charles River met federal swimming standards 65 percent of the time last year, compared with 51 percent in 1998, and met the standards for boating 90 percent of the time last year, up from 83 percent in 1998

Wherefore luxury and abundance on one side, and beyond the opposite?" In his call for a regional park system, Baxter noted that some of the wealthier communities – such as Brookline and Cambridge – enjoyed easy access to abundant parkland, while "Everett, which, with its extraordinary growth and the certainty of being occupied by an exceptionally dense population, has yet not so much as a square foot of public pleasure ground."

The MDC did not conduct user surveys in recent years, so it is impossible to know precisely who uses the system's parkland and recreational facilities. But observers note that the crowds at other MDC parks – the riverfront park in Brighton, for example, or at the Middlesex Fells – are made up of low- and moderate-income people. Most users of the MDC's recreational

facilities, especially the swimming pools and skating rinks, are local residents who cannot afford for high prices for ice time at a private rink or a back-yard swimming pool. The systems only two fresh-water beaches – Houghton's Pond at the Blue Hills Reservation in Milton and Sandy Beach in Winchester – have been a magnet for minority communities.

From the start, the founders insisted on an integrated regional system, while recognizing the strong tradition of municipal sovereignty in Massachusetts. In their 1893 report, the commissioners wrote: "The advantages of local government are well understood in Massachusetts, and do not need to be dwelt up here, but where a political needs exists, intelligent provision should be made for it; for if it not made, growth will go on all the same, though in some force and unnatural way." Calling Boston a "great metropolitan district, consisting of one large city and its sub-

urbs, near and remote," the commissioners argued that "there are common needs and interest in matters of police, drainage, water supply, means of communication, and to these should be added open-space reservations. A proper park system cannot be developed within local lines."

MISSION 2: MANAGING INTEGRATED ECOSYSTEMS

Many city dwellers think of an ecosystem as something that lies outside the urban setting. But even densely developed areas sustain ecosystems. The MDC's parklands and reservations are crucial to the survival of these ecosystems.

Urban and suburban parkland improves air quality; the leaves of trees and plants release clean oxygen into the air, and flora absorbs carbon dioxide, reducing local temperatures. Open space provides a natural habitat for wildlife and assists in the subsistence and migration of birds. An

urban park system helps relieve the fragmentation of natural spaces caused by development and restores something of the original quality of an ecosystem, including safe havens and breeding ground for indigenous animals, insects, and birds. Open space also preserves the ecological balance among plant and animal life that both need to survive.

A critical part of this ecosystem is the regional water system. The MDC has always considered its open-space systems to be closely connected to the The quality of waterways is closely connected with flood-control efforts. Undeveloped, vegetated areas make a significant contribution to flood control

waterways of the Charles, Neponset, and Chelsea rivers. Acquiring and setting aside land in a watershed area enables the state and region to protect bodies of water from the degradation caused by the inflow of sediments, bacteria, heavy metals, nutrients that foster the growth of noxious aquatic plants, and other pollutants associated with storm water runoff. Many storm drain systems in Greater Boston still empty into rivers and brooks. In developed areas, rainstorm and snowmelt runoff flowing into the system carries a far higher amount of fertilizers and pesticides, automotive fluids, and household and business chemicals than runoff from parkland. And since development churns up the ground, it can erode large amounts of soil, which erodes to become silt and sediment at the bottom of waterways.

With a far greater danger posed to bodies of water in urban lands by pollution, the MDC has focused on purchasing watershed land along the three major rivers. The MDC area is composed of two major watersheds, the Charles River Watershed and the Boston Harbor Watershed. Acquiring watershed land along the riverbanks is essential to preserving and improving the river, and to protecting Boston Harbor. Since 1991, the MDC has made 364 acquisitions of watershed land, totaling 16,976 acres, at a cost of \$111 million. Most of that and has been in the watersheds of the Quabbin and Wachusett Reservoirs, which provide drinking water for Greater Boston. The MDC now owns 120,000 acres of reservoir watershed land.

The U.S. Environmental Protection Agency has identified five major causes of river pollution originating from watersheds in Massachusetts – noxious aquatic plants, pathogens, sediment and silting, organic enrichment causing low oxygen levels, and nutrients.

Significant progress has been made in the water quality of the MDC's three major rivers. State and federal environmental officials have set a goal of making the Charles River "swimmable" by the year 2005. The river met federal swimming standards 65 percent of the time last year, compared with 51 percent in 1998, and met the standards for boating 90 percent of the time last year, up from 83 percent in 1998. The EPA issues grades annually on the pollution levels in major rivers. In 1995, it gave the Charles River a grade of "D"; in 2002, the grade for the river was "B."

The quality of waterways is closely connected to the region's flood control efforts. Undeveloped, vegetated areas – such as parklands and river ways – make a significant contribution to

flood control. Open space near a river allows potential floodwaters to spread out across the open space and be absorbed into the soil and the riverside vegetation litter. The open space acts like a sponge for the floodwaters. Trees, shrubs, and plants in parklands also absorb water.

In urban areas, much of the rainwater falls onto impervious surfaces – roofs, parking lots, and streets where rainfall cannot seep into the ground – and runs directly into waterways. In 1996, the Muddy River flooded, causing surges of water to overwhelm homes, hospitals, and the Kenmore Square subway station and causing an estimated \$70 million to \$90 million in damages. Open space is critical in avoiding such disasters; unbuilt land intercepts and absorbs surges of water, a crucial factor in urban flood control.

In recent years, policymakers in Greater Boston have struggled to stem the problem of "combined sewer overflow," or CSO. When the area's sewerage system was built more than a century ago, pipes carrying sewage and pipes carrying storm water runoff fed into the same system – and from there into the rivers and Boston Harbor. During most rainfalls, the sewage and storm water flow through separate grooves in the same pipes, so that sewage can be channeled to treatment facilities and storm water can be channeled into rivers and other waterways. But in heavy storms, sewage and storm water are brought together and dumped into the waterways. The MWRA has begun a comprehensive effort to overhaul the region's pipe system to prevent the dumping of wastes into waterways.

Planners, engineers, and the MDC have been more successful in controlling the potential floodwaters of the area's largest waterway, the Charles River, the basin of which is also converted saltwater mudflats. The dam and series of locks at the mouth of the Charles River, where it meets to the Atlantic Ocean, were built in the early 1970s (the original dam creating the Charles River Basin was finished in 1910); they act as on the primary flood control stations for the river. Seven huge diesel engines (similar to railroad engines) pump surging waters in the Charles River basin into the ocean. The pumps can also operate, when necessary, in reverse.

Thousands of acres of floodplains and open space in Dover, Sherborn, Medfield, and Millis, upriver from the South Natick dam, provide another flood-control strategy. In the 1960s, with flooding a problem in that area, the state invited the U.S. Army Corps of Engineers to look at the problem. The Corps is well-known for its building of dams, but in a 1972 report, the Corps' engineers stated: "Nature has already provided the least-cost solution to future flooding in the form of extensive wetlands that moderate extreme highs and lows in streamflow." This technique, known as "natural valley storage," prevents flooding not only in the valley but also downstream.

MISSION 3: Providing Water and Sewage Services

Until 1985, the Metropolitan District Commission not only operated Greater Boston's regional parks, major waterways, and recreational facilities, but also coordinated water and sewer service. The MDC operated three pumping stations (East Boston, Deer Island, and Nut Island) but the conditions of the Boston Harbor were considered appalling because of direct dumping of sewage into the water. In 1968, the MDC built a primary treatment plant on Deer Island, but the facility did little to alleviate the harbor's poor water conditions. When the flow of wastewater to the Deer Island plant became too much for the facility to treat – an event that occurred frequently – the MDC simply opened its discharge pipes and let the raw sewage pour into Boston Harbor. The harbor became one of the most polluted in North America.

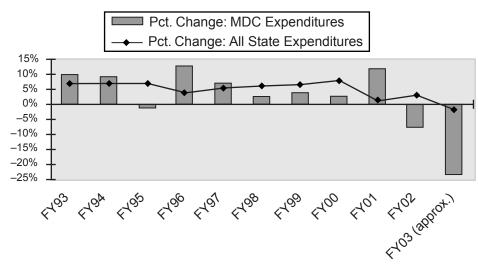
The City of Quincy sued the MDC in 1982, charging the agency was violating the 1972 federal Clean Water Act. Suffolk Superior Court Judge Paul Garrity appointed Harvard Law School Professor Charles M. Haar as a special master to investgate the allegations, and in 1983 Haar reported to the court, among other findings, that in the first five months of the year the Deer Island plant had dumped "grossly polluted murky brown fluid" into the harbor. Garrity issued an ultimatum to the legislature in December 1984, warning that unless the legislature took action

he would issue and enforce a clean-up order, ban any new hook-ups to the MDC's sewer system, and perhaps even place the MDC in receivership.

Garrity's ultimatum forced the General Court to act. The legislature stripped the MDC of the water and sewer system it had operated since the 19th century and created a new state agency, the Massachusetts Water Resources Authority. The MWRA largely succeeded in cleaning up the Boston Harbor and providing water and sewer services to 61 communities in Greater Boston.

With the creation of the MWRA, the MDC lost its primary source of revenues fees for those services assessed to the district's 62 cities and towns. Since then, the MDC has relied on the state legislature for appropriations to acquire open space, maintain its properties, and run recreational programs. Former MDC chief John Sears argues that the MDC-MWRA split was a fateful moment in the history of regional open space in Greater Boston. By separating

PERCENT CHANGE IN MDC AND STATE SPENDING



Source: Exectuive Office of Administration & Finance

the parks system from a reliable revenue stream – and from an essential service that offers direct and immediate value to residents all over the service area – the MDC was left isolated in state government and political system.

THE PARK SYSTEM'S EVOLVING CHALLENGES

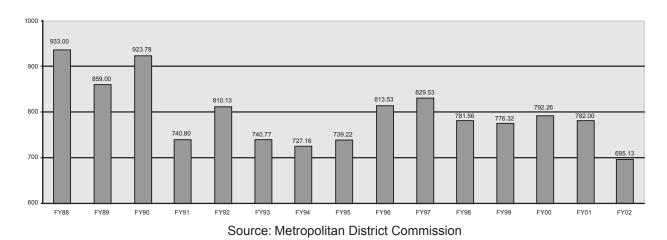
The Metropolitan District Commission faced five major challenges in its recent history. Addressing each of the challenges is essential for the new metropolitan parks agency to meet its current missions of protecting and enhancing the environment and providing a wide range of recreational spaces for the people of Massachusetts.

CHALLENGE 1: RESOURCES

When confronted with complaints about shortcomings in the maintenance of its sprawling system, officials from the MDC argued that they did not have the resources they needed to manage the system much better. And the numbers seem to give credence to their claim.

The recent budget crisis in Massachusetts underscores the problem. The total state budget shrunk by 2 percent from fiscal year 2002 to fiscal year 2003, as hard economic times hit Massachusetts, but the MDC took a much more painful hit – its appropriation declined by 23.5 percent. In five of the past six fiscal years, the rate of growth of the MDC's operating budget was significantly lower than the growth rate of overall state spending. The same was true for much of

PERCENT CHANGE IN MDC AND STATE SPENDING



the 1980s. According to the 1996 report of a Green Ribbon Commission, a body appointed by Governor William F. Weld, the portion of the MDC's budget dedicated to park management declined by 31 between 1988 and 1991 – while state operating expenses were increasing by 15 percent.

The core problem is that the MDC lacked a dedicated revenue stream and was subjected to the vicissitudes of the economy and political environment. For much of the 20th century, the MDC raised its operating funds by charging assessments to the 34 cities and towns in the MDC district. But responsibility for the water and sewerage system was transferred to the MWRA in 1984 – and, with it, the revenues from the services. Funding for the MDC was shifted from a reliance on assessments to the state's general fund. (The MWRA is now funded by "user fees" charged to communities.)

Fluctuating fiscal fortunes make longterm management and development difficult. The state comptroller's office has subdivided expenditures by category in its Massachusetts Management Accounting and Reporting System, also known as MMARS. The amount the MMARS system records as having been spent by the MDC on "Building and Land Improvement and Land Maintenance" fluctuates considerably over the past seven fiscal years, from a low of \$6 million in fiscal year 1996 to a high of \$19.4 million in fiscal year 2000. For fiscal years 2001 and 2002, the MDC spent approximately \$9 million annually on "Building and Land Improvement and Land Maintenance." The amount the legislature and government have appropriated annually under the line item for "Parks, Recreation, Roadways," which includes the maintenance of the parks, ranged from a low of \$20 million in fiscal year 1998 to a high of \$31 million in fiscal year 2001. (For fiscal year 2003, the line item has been cut to \$22 million.)

Former Environment Secretary Durand proposed an amendment to the fiscal year 2003 state budget that would have created a retained revenue account for the MDC, so that all the money raised by the agency through fees and contracts with vendors could be allocated only to the MDC. The Department of Environmental Management has a retained revenue account, similar to one that Durand proposed for the MDC, that generates \$4 million a year. "All the vendors who use our property, all the revenue from the skating rinks, all the revenue generated at the beaches and whatnot would go back into a retained revenue account," Durand said. "It would be one way of helping offset the costs of maintenance and improvements to the parks." The legislature did not approve Durand's proposal.

A bond issue and capital appropriation to the MDC were required if the commission wanted to undertake much more expensive projects, such as buying a new fleet of trucks, reconstructing a dam, or doing extensive and much-needed repairs and renovations to the Longfellow Bridge. The MDC did not issue bonds to raise money for capital improvements on its own. Some state agencies and quasi-governmental agencies, such as the Massachusetts Bay Transportation Authority and the Massachusetts Port Authority, have the power to issue their own bonds; this is known as "special obligation" debt. The MDC raised capital through the issuance of so-called "general obligation" bonds. Of the roughly \$6 billion in debt the state issued in the five fiscal years from 1998 to 2002, \$227 million went to fund MDC capital projects, including \$47 million for construction and maintenance of parkways, \$42 million for the acquisition of open space and development rights to land in Greater Boston, \$27.5 million for land acquisition in the watershed of the Wachusett Reservoir in central Massachusetts, \$22 million for the construction, repair and renovation of MDC facilities such as pools, rinks, and golf courses, and \$16 million for the restoration of the MDC's Boston Harbor beaches.

Flat budgets resulted in a steady decline in workforce over the past 15 years. The number of full-time equivalent positions at the MDC in recent years was at its lowest level in two decades. In 1988, the MDC had 933 FTEs (not counting the MDC Police and staff at the zoos, employees who have since been transferred to other agencies). The number FTEs was cut to 745 in the state budgetary crisis of 1991. Throughout the 1990s, the number of FTEs fluctuated between 727 and 830. Last year, the MDC had 695 FTEs – a 25 percent decline in manpower since 1988. In the past two years, staffing levels at the MDC have declined steeply. With its budget cut by \$10 million (about 17 percent) in Fiscal Year 2003, there is little hope of beefing up the staff.

The number of seasonal employees the MDC hired each year to work at its parks, pools, and beaches in the summer and its rinks in the winter, also fell steeply, from more than 900 FTEs in the mid-1990s to just over 700 today. Budget cuts and the inability to hire enough seasonal employees forced the MDC last year to keep its swimming pools closed until July 1, close its skating rinks two weeks earlier than usual, cut back the hours for fishing hours in Quabbin Reservoir. The agency could not staff its freshwater beaches in Saugus, Milton and Malden with lifeguards until July 1. The same will happen this year, after Governor Mitt Romney cut \$125,000 from the MDC's budget for seasonal hires.

Only a third of the MDC's employees provided direct services to the park system, according to a 1997 study by a private consulting firm. Another third of the MDC'S employees worked

directly on the agency's watershed lands, parkways, dams, bridges and other public works facilities. Nine percent of the agency's employees were classified as "general administration," and the remaining employees provide support services – such as engineering and vehicle maintenance – to the parks and public works employees.

Governor Weld's Green Ribbon Commission of 1996 warned that the MDC simply did not have personnel to maintain the park system, even as its added new lands and new facilities. Between 1988 and 1995,

Governor Weld's Green Ribbon Commission of 1996 warned that the MDC simply did not have personnel to maintain the park system, even as its added new lands and new facilities

according to the report, staffing levels of the park system declined by 38 percent. "The Commonwealth has failed to support levels of park staff necessary for maintenance and management to prevent the decay of these newly acquired open spaces and those it inherited from the system's creators," the report charged. In the same year, the MDC had only one supervisor, three rangers, and ten maintenance workers for the Blue Hills and Stony Brook Reservations south of Boston, which cover nearly 8,000 acres. The problem has only grown worse since then.

With the state government, caught in a financial squeeze early in 2002, about 60 MDC workers, mostly maintenance workers, took early retirement. Now the MDC's Lower Basin Division, which stretches from the Charles River Dam to Jamaica Pond, now has only six maintenance workers. Southwest Corridor Park, which had a dozen maintenance workers ten years ago, now has three. At the Quabbin Reservoir, a popular spot for fishing, the MDC had just one employee repairing boat motors and one employee to mow all the grassy area around the reservoir. The sharp decreases in staffing "overwhelmed" the maintenance maintenance of the MDC, wrote the authors of the Green Commission report.

CHALLENGE 2: MANAGEMENT

Ultimately, the management of the regional parks system will only be as good as the leadership of the entity. "If you want to revive the parks system, one of the ways to get there is to have a most extraordinary commissioner," said Betsy Shure Gross, special assistant for community preservation at the Executive Office of Environmental Affairs. The Romney Administration plans to hire a new commissioner by the end of 2003.

Public managers need three basic qualities: financial and human resource management skills, understanding of how to integrate information technology into everyday operations, and a working knowledge of organizational dynamics in large institutions. To be a leader, a manager needs something more – a vision for the organization and the ability to get others to work toward that vision. The lack of a top manager and leader for the MDC over the past 30 years – mostly the result of indifference on the part of the governor – has harmed the MDC as much as its funding and staffing problems.

Governors over the past three decades appeared to give much greater weight to political connections and loyalty than to experience in management – and specifically parks management – when choosing MDC commissioners. The widespread perception that the MDC's top jobs were patronage plums hurt the public image of the MDC and impeded the agency from doing its job.

The three most recent MDC commissioners – and the current acting commissioner – each had some management experience but no track record of running a large organization, much less a major open-space system.

William Geary, commissioner from 1983 to 1989, began in politics as a volunteer in the gubernatorial campaign of Michael Dukakis and became a Dukakis advisor. Geary, an attorney, held a master's degree in public administration when he was named commissioner, but his previous experience in state government was as an aide to the governor in charge of patronage hiring; he served as Dukakis's appointments secretary in the 1970s. When Dukakis defeated Governor Edward King to win back the Corner Office in 1982, Geary was the transition team's personnel director.

Ilyas Bhatti, who succeeded Geary, had the greatest experience in open-space management of any recent commissioner. Bhatti was a civil engineer who headed the MDC's Watershed Division for four years when he was appointed commissioner in 1989. He resigned in 1995 to become associate project manger for the Central Artery project. Even Bhatti, who had experience as a manager at the MDC, was severely hampered by the state's culture of patronage. Weld appointed as Bhatti's deputy a young Republican state senator who had been defeated in his 1992 re-election bid, Robert Hedlund. Hedlund clashed frequently and openly with Bhatti, even alleging corruption and drug-dealing among MDC employees that were not substantiated in an investigation by state police.

Bhatti's replacement was David Balfour, a career events planner who had worked as an advance man for Presidents Ronald Reagan and George H.W. Bush and who had organized Goveror William Weld's inaugural celebrations in 1990 and 1994. Weld named Balfour superintendent of state office buildings in 1991, made him a special assistant to the governor for special

events in 1993 (the next year, Balfour organized SailBoston and the World Cup matches in Massachusetts) and named him commissioner of the MDC in 1995. Governor Mitt Romney fired Balfour in 2003.

Balfour was widely criticized for his lack of interest in large-scale planning and his apparent willingness to use his office for political purposes. While the MDC has set priorities for land acquisitions, Balfour often purchased properties that did not meet the goals established by the planning processes. A controversy that raged at the end of his term underscored the critique. The

Boston Herald reported in January 2003 that the MDC paid \$675,000 for a half-acre parcel of land in Stoneham owned by a friend of Balfour named Robert McAree; not only was the deal considered an insider sale, but most of the land was actually a parking lot and had little value for the park system. As Attorney General Thomas Reilly announced an investigation of the deal, many open space advocates said privately that it was just one example of insider connections trumping planning priorities in land acquisitions. Since the beginning of the Weld Administration in 1991, the MDC has paid \$4.3 million for

The lack of a top manager and leader for the MDC over the past 30 years – mostly the result of indifference on the part of the governor – has harmed the MDC as much as its funding and staffing problems

nine land sales to a developer David M. Richards, a political ally of Weld – a fact that Romney Administration officials have cited as evidence of the need to abolish the commission.

After firing Balfour, Romney appointed as acting commissioner the 34-year-old William McKinney, a Republican activist and unsuccessful candidate for the U.S. Congress who worked in the financial services department of a local bank before being named assistant commissioner of the MDC in 2002.

As controversial as recent MDC commissioners have been, the recent past has been a picture of stability compared with the decade before 1983. Before Geary was appointed in that year, the MDC commissioner's post had been a temporary stop in a game of political musical chairs. From 1975 to 1983, the MDC had ten different commissioners.

With an emphasis on political connections rather than management experience or expertise in parks and recreation, critics of all political stripes complained that the MDC became a "dumping ground" for patronage. The culture of patronage, critics say, made it difficult to adopt modern budgeting and management systems. The Green Ribbon Commission report endorsed this critique, saying among the MDC's most serious problems were "a weak management structure" and an "inadequate commitment of stewardship." Poor management, the commission said, had led to "serious turf battles and general fragmentation within the agency."

Good management depends on the availability of good, real-time data on all aspects of the organization. But the MDC's information systems were inadequate for management of a complex and far-flung system. Besides input gotten through community meetings and formal hearings, the MDC had no comprehensive database system to track its planning, capital budgeting, project management, facility maintenance, and staffing operations.

From its founding in 1893 until 1947, the commission produced detailed annual reports, including yearly reports of land acquired and parkways built. Those annual reports were – and still are – required by law, but in 1948 the commission stopped issuing annual reports. It appears record-keeping simply stopped, or was done in a much more haphazard way. No comprehensive records of MDC land acquisition exist for the years between 1947 and 1990.

Early in 2003, Acting Commissioner McKinney created a feedback system for ordinary citizens to make complaints and comments about the MDC system. Selected comments are posted on the MDC's web site (www.state.ms.us/mdc/FeedbackArchive.htm). The site was maintained by the

MDC's community affairs department. On May 15, 2003, some 34 comments, covering a four-month period, were archived on the site. The comments, displayed in reverse chronological order, included compliments on MDC workers, questions about acceptable uses and of facilities, complaints about potholes and clogged sewer drains, availability of summer jobs, signage, and conditions of MDC properties. Each question or comment was given a response. On the site, the MDC directed questioners to officials who can handle the question ("Please contact the Wachusett Ranger Office"), notes its budget constraints or lack of authority ("unfortunately, due to severe budget cuts..."), reports that information has been passed on ("our Operations Division and MDC North Regional headquarters has been notified of your concerns"), or summarizes recent developments ("MDC crews have been out repairing potholes all over").

The one and only survey conducted in the past 15 years was a phone survey of 500 residents of the Charles River Basin area conducted in 1997 as part of the development of the new Charles River Basin master plan. That survey found that while 28 percent of respondents earning between \$50,000-\$100,000 annually reporting using the Basin's parkland and facilities "frequently," only 16 percent of people earning less than \$25,000 a year use the area regularly. But the small size of the survey sample – and the fact that the Charles Rivers Basin parkland lies in the Back Bay and Beacon Hill, the wealthiest area of Boston – make the results unreliable.

Karl Haglund, a senior planner at the MDC and the author of *Inventing the Charles River* (published last December by the MIT Press), expresses frustration about the lack of hard data about MDC users: "The agency is suffering from not knowing enough about its users – we just don't know who is out there. You would think that at least once a decade we'd do a park census. But we haven't done the various kinds of users survey to show who is using the parks, how often, and for what. The urgency of what needs to be done today, with a limited budget and staff, always overpowers the kind of data-gathering."

Any research into the history and workings of the MDC, in fact, is stymied by a paucity of data in any usable form. Haglund states simply: "We haven't documented or own land acquisitions

'The agency is suffering from not knowing enough about its users – we just don't know who is out there. You would think that at least once a decade we'd do a park census' in an accessible form. You shouldn't have to go ask the lawyers for the deeds." Other records on maintenance, employment, capital expenditures, and user feedback are also difficult to maintain. MDC officials acknowledge that the commission does not have a modern database system that can provide real-time tracking information or different ways of aggregating data for planning and management. The MDC has purchased project-management software but it has never been integrated into the commission's shortterm or longterm management and planning.

The future of the metropolitan parks system depends on its ability to modernize its data systems. A system as sprawling and complex as the MDC's needs real-time data for management and short- and long-term planning. Chief of Commonwealth Development Douglas Foy has asked Andrew Kendall, the executive director of the Trustees of Reservations, to develop recommendations for better management of all of the state's parks, reservations, watersheds, and other environmental systems. Kendall recently took a site visit to explore the potential of a new management system pioneered by Baltimore Mayor Martin O'Malley. Baltimore's CitiStat system is a real-time database system that gives managers access to data about virtually every activity in every department of the city. Implementing a system similar to Baltimore's CitiStat could be a major opportunity for the MDC's system – not only to improve planning and management but also to coordinate open-space systems with state development, transportation, and housing policy.

MDC BUDGETS

Expenditures	FY94	FY96	FY98	FY98	FY02
Employee Compensation	\$26,366,652	\$28,958,766	\$31,666,422	\$31,666,422	\$32,254,801
Employee Related Expenses	\$131,439	\$147,592	\$184,740	\$184,740	\$135,675
Special Employee/Contracted	\$25,816	\$76,608	\$39,054	\$39,054	\$41,065
Pension/Insurance Costs	\$1,412,757	\$1,286,822	\$1,463,271	\$1,463,271	\$1,434,616
Administrative Expenses	\$645,836	\$757,345	\$981,086	\$981,086	\$1,329,341
Facility Operational Supplies	\$1,880,575	\$2,220,536	\$1,956,401	\$1,956,401	\$1,447,623
Energy Costs & Space Rental	\$6,807,475	\$7,072,181	\$7,297,904	\$7,297,904	\$7,619,178
Consultant Contracts	\$514,280	\$515,290	\$707,968	\$707,968	\$463,436
Operational Servicves	\$801,592	\$1,222,594	\$1,097,193	\$1,097,193	\$1,075,927
Equipments Purchase	\$1,306,432	\$744,419	\$589,459	\$589,459	\$77,944
Equip. Lease & Maintenance	\$510,839	\$1,029,522	\$744,286	\$744,286	\$854,553
Social Service Programs	\$2,104,825	-	-	-	-
Construction& Land Acq.	\$4,151,778	\$4,052,416	\$3,169,415	\$3,169,415	\$8,174,486
Grants & Subsidies	\$286,232	\$3,789,245	\$6,878,463	\$6,878,463	\$4,968,744
Entitlement Programs	-	-	-	-	-
Debt Payments	-	-	\$-	-	-
Loans and Special Payments	\$57,237	\$140,361	\$125,701	\$125,701	\$105,312
All Object Codes	-	\$238,580	\$281,035	\$281,035	\$2,434,917
Total Expended	\$47,003,765	\$52,252,277	\$57,182,398	\$57,182,398	\$62,417,618

Source: Metropolitan District Commission

EOEA plans to adopt some form of comprehensive database system to track the use and management of parks, parkways, and recreational facilities. The trick, say EOEA officials, is to develop a "template" that tracks information consistently for all varieties of open space in EOEA across the state.

CHALLENGE 3: BALANCING ACQUISITION AND MAINTENANCE PRIORITIES

Like most systems of physical infrastructure – transit, roads, schools, community centers, sewers – the metropolitan parks system must balance the goals of expansion with the necessity of maintaining and operating its current holdings. Every new acquisition of land requires not only the cost of developing that space, but also maintaining it for years to come.

The system's very popularity threatens the system. The heavy usage of the parks signals the system's overall popularity and also offers a reason to make buying new park land a top priority. "There's such a thing as loving the parks to death. We need to have what I would call 'sustainable visitation,'" former Environment Secretary Robert Durand said. "That's why it's important to have more parks. You can spread it out a bit."

During his tenure as EOEA secretary under the Weld, Cellucci, and Swift administrations, Durand pushed aggressively for acquisition of new land for the MDC system. But the commitment to aggressive land acquisition might be nearing an end. With the purchase of about 2,000 acres of open space inside the boundaries of Route 128 over the past ten years, advocates say that acquiring land will be an increasingly expensive proposition. State ballot measures might be required to push for more aggressive open-space acquisition plans, as states across the country from New York to California have done. Much of the impetus for open-space acquisition shifted to the local level with the Community Preservation Act, a 2000 measure that allows communi-

MDC CAPITAL SPENDING

Category	FY1998	FY1999	FY2000	FY2001	FY2002
Beaches	\$3,862,476	\$5,928,851	\$6,090,317	\$4,202,994	\$2,365,272
Central Artery Mitigation	\$4,093,668	\$3,649,154	\$1,386,077	\$902,121	\$747,860
Clean Slate Initiative	\$2,385,626	\$1,619,325	\$1,680,477	\$645,056	\$1,179,727
Holden/West Boylston Sewer Project	t -	\$5,841,417	\$14,642,650	\$12,913,715	\$8,747,011
Information Technology	\$160,000	\$235,482	\$637,494	\$1,438,956	\$991,172
Judgments and Settlements	\$5,144,056	\$4,756,262	\$15,323,322	\$1,610,134	-
Parkways and Bridges	\$3,430,007	\$7,703,909	\$6,584,853	\$16,009,381	\$14,370,965
Parkland	\$2,499,102	\$815,000	\$773,449	\$466,611	\$1,789,909
Parkland Acqusition	\$3,051,882	\$5,674,269	\$615,551	\$2,285,201	\$4,589,229
Rehabilitation	\$7,352,583	\$7,548,749	\$10,808,047	\$8,229,372	\$8,341,304
Watershed Initiative	-	\$54,005	\$66,955	\$27,747	<u>-</u>
Watershed Land Acqusition	\$15,920,274	\$8,399,459	\$7,908,411	\$7,653,177	\$8,337,026
Watershed Management	\$6,923,760	\$82,273	\$178,832	\$39,093	\$540,749
Waterway and Beach Rehabilitation	\$5,006,036	\$2,403,808	\$3,037,959	\$568,889	\$1,871,556
Zoo Subsidy	\$1,500,000	\$1,000,000	\$2,000,000	-	-
Total	\$61,329,470	\$55,711,963	\$71,734,394	\$56,992,447	\$53,871,780

Source: Metropolitan District Commission

ties to enact new levies to fund open space, affordable housing, and historic preservation. Some 22 Massachusetts cities and towns have bought open space under the CPA.

Park land has been acquired in one of three basic ways: it was donated to the public by the owner, transferred from a governmental agency that no longer has a use for it, or bought from private owners. The last way was the most common.

State-managed park land, such as that included in the MDC's regional park system, is acquired with state funds. The usual method is to purchase the land not out of operating expenses, but by including the purchase price of the park land in long-term bonds issued by state government. Under Massachusetts law, the state legislature must approve so-called "bond bills," which appropriate hundreds of million of dollars to capital expenditures, such as buying land. But those "bond bills" are, for all intents and purposes, wish lists – only the governor's office can actually authorize the issuance of bonded indebtedness to fund those capital expenditures.

Under a debt limit policy established by Governor Weld, the state is now authorized to issue \$1.2 billion in debt every year for all state capital projects including the multi-billion-dollar Central Artery project. The Romney Administration reduced the debt limit to \$1.1 billion in 2003. (Capital spending of independent authorities like the Massachusetts Bay Transportation Authority and Massachusetts Port Authority does not fall under this cap.) The governor's office annually divvies up allowable capital spending among Cabinet secretariats. Once the secretariats get their capital spending authorization for a year, they meet with their department and division heads to set capital spending priorities.

For Fiscal Year 2003, EOEA was authorized to spend approximately \$120 million in capital expenditures; in the mid-1990s, that number was above \$200 million. The MDC was authorized by Environment Secretary Durand to spend \$10 million for land acquisition and \$26.7 million for non-land-acquisition capital projects in Fiscal Year 2003. The state's Division of Capital Asset Management funds the parks system's "vertical construction" – pretty much anything but roadways – that costs more than \$500,000. In the MDC's case, this included repairs, renovation and construction of such facilities as skating rinks and bath houses.)

In 2002, the legislature approved and the governor signed into law "An Act Providing For The Preservation And Improvement Of The Environmental Assets Of The Commonwealth," which approves \$753 in capital spending for the purchase, protection and preservation of the state's environmental assets. It is the first comprehensive environmental bond law since a similar measure, which approved \$350 in capital spending, was approved in 1996.

Under the new law, the MDC received \$46.3 million construction, renovation and repairs of skating rinks, swimming pools, golf courses, and other MDC facilities, \$26 million for improvements to MDC holdings, \$20 to purchase reservation land, \$16 million to acquire park land, and as much as \$159 million for various other projects and maintenance. The measure also included \$24 million for the Emerald Necklace Muddy River restoration plan and \$20 million (to be spread among several agencies) for improvements to the infrastructure of watershed areas The bill was larger than similar bond bills for housing and transportation – a first in Massachusetts history.

Maintenance has been funded from the state's annual operating budget. That budget, and the amount the regional park system receives, is determined each fiscal year by the legislature and the governor. (In Massachusetts, the governor can only reduce – and not add to – a budget line item.) The MDC's annual operating budget also includes funding for employee compensation and benefits; administrative expenses; supplies to operate facilities; energy costs and space rental; consultant contracts; operational services, and other expenses.

CHALLENGE 4: SETTING CAPITAL PRIORITIES

Every year, MDC officials set priorities for land acquisitions and capital improvement projects. But outside forces impose themselves on the MDC's activities. "So much is driven by emergencies and existing commitments and mandates," said Brian Kelter, the MDC's director of finance. "The commissioner decided public safety – a bridge or dam in urgent need of repair – has to take precedence."

Betsy Shure Gross, special assistant for community preservation at the Executive Office of Environmental Affairs, says an internal study found that 83 percent of the MDC's parks "don't

have a plan." Of the 17 percent of parks that do have a plan, many address only minor maintenance issues. Over the long term, EOEA aims to encourage the operation of friends groups for every park, which will provide short- and long-term visions for the MDC's system. "We need a friends group for every space and a minumum amount of money for every group," said Gross.

New capital project initiatives, including land acquisition, said the MDC's Overton, "result from the a combination of input from public advocates,

New capital project initiatives, including land acquisition, 'result from the a combination of input from public advocates, the commissioner, the legislature, and our staff'

the commissioner, the legislature, and our staff." This, MDC officials admit, was not capital planning by the textbook. Capital projects were prioritized based on pressure from advocates and legislators, along with the wishes of the staff. Ultimately, the MDC commissioner decided the agency's capital spending priorities.

In 1991, after conducting a survey of open space for sale in the Boston area, the MDC began its land acquisition program by identifying dozens of parcels of land the agency wanted acquire either to create new park lands or to tie together existing park lands, such as park lands along a river. Using public input, the MDC ranked these potential acquisitions in priority order, and began, when both the funding and the land was available, purchasing properties at the top of the list. Ten years later, the MDC has accomplished about 80 or 85 percent of those acquisitions,

said Julia O'Brien, the MDC's director of planning, adding 2,000 acres of park land within Route 128 in the past ten years.

The standards for setting land-acquisition priorities were delineated in a December 1992 document "Land Acquisition Program," produced by the MDC. After the legislature passed the open space bond bill in 1987, the MDC established goals and processes for determining which land parcels should be given priority for acquisition. The seven goals include:

- Protecting endangered or unique natural resources.
- Protect ecosystems that cross political boundaries.
- Provide recreational opportunities that cities and towns cannot provide themselves.
- Strengthen existing park boundaries and settle disputes over ownership and control of critical pieces of land.
- Improve public access to the system with transportation improvements and design enhancements.
- Reclaim abused or neglected sites.
- Provide resources necessary to plan, staff, and maintain new land holdings.

After conducting community meetings in each of the district's 37 communities, MDC staff used a ranking system to assess 205 different potential acquisitions totaling 1,831 acres. The MDC eventually placed properties into four categories, indicating whether they should be targeted for acquisition in short, medium, or long terms, or not at all. Later, MDC staff identified "top priority" assessments based on these four categories and the "ecological stability and recreational opportunities" of the system. Seventeen properties were identified as top priority.

In the 12 years from fiscal year 1991 to fiscal year 2002, the MDC made 106 acquisitions of park land, acquiring 2,288 acres at an expenditure of \$58.65 million. It also made 364 acquisitions of watershed land, totaling16,976 acres, at a cost of \$111 million.

In recent years, the MDC faced the high-cost realities of a booming economy in an age of sprawl. The MDC's planning director, Julia O'Brien said, notes that the land now available for

RECENT MDC LAND ACQUISITIONS

Fiscal Year	Total Park Acreage	Park Bond Total (millions)	Total W'shed Acreage	W'shed Bond Total (millions)	Total Acquisitons	Total Acreage	Cost (millions)
2002	90	\$7.2	1,426	\$8.2	32	1,516	\$15.4
2001	37	\$1.6	949	\$8.1	34	986	\$9.7
2000	7	\$0.1	877	\$8.0	26	884	\$0.1
1999	8	\$5.0	888	\$8.0	16	896	\$ 12M
1998	87	\$2.4	2,122	\$16.1	58	2,209	\$18.5
1997	149	\$10.0	1,673	\$14.0	29	1,822	\$24.0
1996	335	\$0.8	1,589	\$14.0	47	1,924	\$14.8
1995	245	\$6.2	1,354	\$8.6	44	1,599	\$14.8
1994	430	\$13.9	1,862	\$8.9	53	2,292	\$22.8
1993	132	\$6.8	1,504	\$6.9	50	1,636	\$13.7
1992	757	\$2.9	743	\$3.8	40	1,500	\$6.7
1991	10.5	\$1.8	1,989	\$6.4	41	2,000	\$8.2
Total	2287.5	\$58.7	16,976	\$111.0	470	19,264	\$123.5

purchase often is "relatively small parcels at relatively high prices." From the founding of the metropolitan park system in 1893 until 1910, thousands of acres of land were purchased by the state. These were what O'Brien calls "the easy parts." She added: "We've spent the subsequent

90 years going back and filling in the hard parts." In using its limited resources, the MDC first looks for parcels of land that would link one piece of park land to another, especially along river banks."

The MDC acquired a number of small but critical parcels in recent years that could enhance major improvements in the integrity of the larger system. Through a long process of negotiation that involved

'The most important thing is to buy land – they're just not making it any more, as the old saying goes'

the Massachusetts Highway Department, the MDC acquired the Columbia Tire site next to the Kennedy Playground along Edgewater Street in Mattapan (the acquisition was made possible by fines levied by the Environmental Protection Agency for toxic dumping). That site provides a critical connect to the Neponset River as well as the vibrant commercial district of Mattapan Square. The MDC has also acquired small but important sites owned by the MBTA and the Schlaeger Corporation on Granite Avenue in Dorchester. The MDC sought ways to use parcels known as the Calf Pasture, now owned the Boston Water and Sewer Commission and the University of Massachusetts, to create new connections along the Harborwalk.

The MDC often had the funds available to acquire open space but not to develop it into park land. With other priorities to be met on a month-to-month and year-to-year basis, funding may not be immediately available to develop a parcel of land. Since its inception, the MDC made a practice of purchasing land when it became available and "banked" it.

A recent example is the 65-acre Pope John Paul II Park in Dorchester on the Neponset River, which features four soccer fields, a performance shall, a playground, picnic shelters, an 85-car parking lot, linked with the Neponset River Reservation's pedestrian and bicycle path. The park was opened and dedicated on June 16, 2000. A substantial piece of the land, the former Hallet Street Landfill, was originally purchased by the MDC in 1973. Eleven years later, in 1984, the MDC bought the adjacent land, the former site of the Neponset Drive-In. The land lay unchanged and unused for the next thirteen years; the only significant action was the legislature's decision in 1985 to name the future park for the Pope. In the mid-1990s, the site was considered a possible site for a new stadium for the New England Patriots; several other developments were proposed for the site in the late 1980s and 1990s. In 1998 the landfill was finally capped, and the entire area of the future park was covered with new soil. In 1999, the MDC finally received \$8 million in capital improvements funding to design and construct the park.

Valerie Burns of the Boston Natural Areas Network advocates buying land, even when resources are not available to develop the parcels in the near future. "The most important thing is to buy land – they're just not making it any more, as the old saying goes," she said. "To their credit, knowing full well they don't have the money to develop land and maintain it but knowing that if they lose it now it's gone forever, the MDC has bought land in a very important way."

CHALLENGE 5: POLITICS

All government agencies have their critics, both inside the government and among the public, media, key interest groups. But the MDC came in for more than its share of attacks over the past 20 years.

A September 12, 1996, editorial in *The Boston Herald* offers a typical example. Dismissing the MDC as "patronage-ridden," the newspaper called for commission's dissolution. "Over the years most of the critical functions of the MDC have been taken over by other agencies. Its police

are now State Police, its water and sewer functions now performed by the Massachusetts Water Resources Authority. Its highway maintenance role could easily be taken over by the state Highway Department. Clearly, this is an agency whose time has come and gone."

During his campaign for governor in 1990, William Weld proposed "blowing up" the MDC. In three of the seven annual budget proposals he submitted to legislature, Weld zeroed out the MDC and parceled out its holdings and responsibilities among other state agencies (including some he proposed to create). Each time the legislature rebuffed him.

Legislators have been calling for the dismantling of the MDC for years. State Senator Michael Morrisey filed two bills in the 2001–2002 legislative session to eliminate the MDC. One bill (S 628) would transfer the MDC's parkways to the Massachusetts Highway Department and the other (S 629) would give all of the MDC's park land and watershed land to the Department of Environmental Management. Neither bill made it out of committee.

Although the party in power spreads patronage jobs across all government agencies, the MDC came under especially harsh criticism for patronage. The MDC's image was not helped when the agency was criticized in the summer of 1999 for not hiring a sufficient number of minority group members for its lifeguard program. Governor Paul Cellucci seemed indifferent to the criticism, telling the Associated Press: "That's just part of life here at the State House."

Not satisfied with his Green Ribbon Commission's findings, the Weld Administration retained Public Administration Services to take another look at the MDC. The PAS report, submitted a

POLITICS OF DEVELOPMENT AND OPEN SPACE

An average of 44 acres of open space every day – or 16,000 acres a year – is lost to residential, commercial or industrial development, according to the Massachusetts Audubon Society.

The battle between land preservationists and developers has long been a part of Massachusetts politics. In 1948, legislative leaders locked Massachusetts House members into the chamber until they approved, by one vote, the construction of Storrow Drive. The controversial vote violated the expressed wishes of James Storrow, a banker and environmentalist who gave the land to the Commonwealth on the condition it remain undeveloped park land.

Clashes between supporters of open space and advocates of development are a regular part of city and town government. The search for development that will raise local revenues is often foremost on residents' minds. In recent years, open-space advocates have often held the upper hand since parks put less stress on local revenues and traffic. The same conflict plays out on the state level, where advocacy groups such as the Massachusetts Audubon Society and the Environmental League of Massachusetts mobilize to control development interests.

In 1972, during the heyday of the early environmental movement, Massachusetts voters approved a referendum requiring that any transfer of publicly owned land had to be approved by a two-thirds legislative majority on a recorded roll call vote. But dozens of parks have been converted to use for construction of schools and other facilities. The legislature has approved 239 land transfers, 34 of them for privately land development, since 1989. State Senator Pam Resor of Acton and State Representative Ruth Balser of Newton filed a bill in the 2001-2002 legislative session to tighten the land-transfer rules. The measure passed the Senate unanimously on March 14, 2002, but died in House committee in the 2001-2002 session.

In the 1990s, legislative approval of the so-called "Rivers Bill," a measure protecting riverside land – and thus the rivers themselves – took seven years. The bill provides for a 150-foot "no-build" zone along the state's river and tributaries. The Senate approved amended versions of the bill three times in the 1990s, but action in the House stalled. In 1996, after an uprising of support for the bill, the House approved a compromise measure, which requires proof that any development within 200 feet of a river would not harm the environment. Governor William Weld signed the bill on a dock in the Charles River on August 7, 1996 – whereupon he dove into the river, fully clothed, to celebrate.

year after the Green Ribbon Commission's report, said the state's park system "is broken and requires a major overhaul." PAS called for combining the MDC and the Department of Environmental Management into a single parks agency and transferring the MDC's "public works and other non-park functions" to other state agencies. Trudy Coxe, then Secretary of Environmental Affairs, embraced the report and proposed combining the park lands of the MDC and the DEM into a new Department of Parks and Forests. "It requires no layoffs, it's going to save the tax-payers money, and it's ultimately going to provide a better parks system," Coxe told *The Boston Globe*. Coxe's proposal, like Weld's, failed to receive legislative approval.

Even legislators who wanted to keep the MDC system complained about how the commission was run. "Earmarks" provide strong evidence of increasingly dissatisfaction among lawmakers on Beacon Hill. An earmark is a legislative tool for micromanagement. Earmarks provided explicit instruction on how funds were to be spent in particular line items. The legislature increased the number of earmarks under MDC line items in its annual general appropriations bill from fewer than a half dozen in fiscal year 1992 to 136 in fiscal year 2002.

Even with increasing numbers of earmarks, many legislators' projects still were not getting funded, leading Senate Ways and Means Committee Chairman Mark Montigny of New Bedford to complain to *The Boston Globe* in June 2001: "You don't pick and choose which laws to implement. They've been spending money that was clearly earmarked for projects on other things. I don't know where it's going." Other legislators expressed similar sentiments. Legislators' anger

undermined the MDC during recent rounds of budget cutting on Beacon Hill, when the MDC's appropriation was cut from \$58 million to \$47 million from fiscal-year 2002 to fiscal-year 2003.

During the debate on the Fiscal Year 2002 budget, the state's Senate leadership threatened to refuse to pay top MDC officials until the agency funded earmarked programs and expenditures. State Senator

'They've proven themselves unable to carry out directives. I want to get the work done, but they've spent the money.'

Dianne Wilkerson of Boston said at the time \$1.5 million had been earmarked in each of the previous two budgets to renovate the Peabody Circle entrance to the Franklin Park Zoo, but the work was not done and the funding was spent elsewhere. "They've proven themselves unable to carry out directives," Wilkerson told *The Boston Globe*. "I want to get the work done, but they've spent the money. You can't have a situation when you give a directive and it's ignored, and you don't even get the decency and the courtesy of a response."

Cities and towns, too, keep up a fairly steady drumbeat of criticism, lashing out at the MDC for leaving facilities closed or in disrepair. In the summer of 2002, the Connors Memorial Pool in Waltham remained closed in July because, the MDC said, it was facing a shortage of lifeguards. Weymouth residents were angry when the MDC closed a pool in that town during the summer. Golfers say the MDC's golf course in Canton has fallen into disrepair over the past several years. In Revere, city councilors complained that Revere Beach suffered from neglect. City Councilor John F. Powers told *The Boston Globe*, "This was the first public beach in America. It's five miles from the state capital. It's right in the center of what is probably the largest metropolitan area of the Commonwealth. Yet it gets no attention or very little."

Building a constituency that can provide broad and sustained support for a regional parks system is perhaps the greatest challenge for the metropolitan parks system in the next several years. Without broad support, new infusions of resources are impossible to imagine. And without strong constituencies, creating a coherent direction for the next generation might be impossible as well.

MDC officials acknowledge their agency did a poor job of marketing itself, but point out the difficulty of marketing at a metropolitan scale. "People relate to the park down the street," said

Julia O'Brien. "They don't think of it as a system – they've never thought of it as a system." Park users often do not know – and do not care – whether they are using a park owned and maintained by a municipality, the MDC, the Department of Environmental Management, or the federal government.

Part of the MDC's problem was that users did not understand who had the responsibility – and the resources – to run the system. When users of city parks have a complaint, they go directly to the mayor or a council member. The management of the MDC seems distant and opaque. With a few notable exceptions – like the museum at the Blue Hills Reservation – MDC facilities did not provide signage and information kiosks that might educate the public about the system as a whole. Many MDC programs were discontinued or scaled back in response to budgetary pressures. The incorporation of the MDC police into a state police force took away the MDC's everyday presence, which one provided a subtle but constant reminder that a special regional parks entity provided valuable open spaces and programming. Many users think the MDC's jewel, the Charles River Esplanade, is part of the City of Boston's open-space system. City officials acknowledge that they get both credit and blame for what happens on MDC properties, which make up half of the city's entire open-space system.

Chicago's park system, by contrast, has a robust marketing department that coordinates an ambitious outreach program. The department coordinates extensive marketing and image campaigns, using up-to-date market research in its efforts. The city uses electronic signs along expressways, kiosks, signage on buses and trains, and banners in high traffic areas to get the word out. The department recently deployed a "Green Machine," a van that provides a presence at city festivals, neighborhood events, and local parks. At every major event, parks officials pass out brochures and other materials.

Although the metropolitan park system is one of the most heavily used services state government provides in Greater Boston, users are not assembled into any kind of broad coalition that supports the MDC. The MDC's constituency is fragmented into many small groups with narrow foci – usually the park land or facilities in a particular geographical area. Numerous "friends" groups and conservancies advocate for a particular part of the metropolitan park system (e.g., a

MDC PLANNING AND DEVELOPMENT PROJECTS

- Master plans Alewife Reservation, Historic Charles River Basin, Upper Charles River, Lower Neponset Master Plan, Blair Pond, Abigail Adams Park, Chestnut Hill Reservoir, Mystic River.
- Historic Parkways Initiative -- Memorial Drive Project, Longfellow Bridge Repair and Restoration, Arborway Master Plan Restoration,
- Back to the Beaches -- Wollaston Beach Restoration, Winthrop Shores Restoration, Other Beacon Projects, Nahant beach Restoration, Revere Arches/Gateway project, Wollaston Beach Sea Wall Repair, Nantasket Beach Sea Wall Project
- Boston Harbor Islands -- Peddock's Island Eco-Retreat and Stabilization of Buildings
- CA/T mitigation New Charles River Basin Parks and Central Artery Mitigation (North Point Park, Lovejoy Wharf, Nashua Meadows Park, Historic Dam Restoration, Leverett Circle/Storrow Drive)
- Bikeways Watertown B&M Railroad Corridor Bikeway

Source Metropolitan District Commission, October 2002

reservation, hockey rinks, parkways). Stakeholder organizations focus on one aspect of the system rather than the system as a whole.

Some of the smaller organized constituencies have been successful. The Boston Harbor Association and harbor advocates organized have successfully behalf of the Boston Harbor Islands. The Friends of the Esplanade and Charles River Watershed Association have created a watershed-wide vision of the river's beauty, environmental benefits, and recreational potential. The Emerald Necklace Conservancy has worked with Boston, Brookline, and the MDC to improve critical pieces of the Olmsted string of swards. Parents of hockey players are a vocal constituency for the MDC's skating rinks. The Boston Natural Areas Network has played a central role in organizing community-based planning efforts along the Neponset River and Chelsea Creek. In 1994, residents of Cambridge suc-

cessfully fought against special legislation filed on behalf of a large supermarket chain that would have allowed delivery trucks to use a portion of Memorial Drive, a parkway. Over time, as residents of the many communities work to develop new visions for their riverfronts and adjacent parks, they develop a new appreciation of the potential for regional openspace networks.

Strong advocacy for the metropolitan parks system requires corralling a disparate collection of users and advocacy – and using the small victories in specific parks, roadways, and riverfronts to build a

Following the award-winning model of New York City's Partnerships for Parks, state officials hope to provide friends groups with 'toolkits' they need to improve parks throughout the MDC system

broader vision of the regional system of open space. The transition team planning MDC's incorporation into DEM is hoping to foster broad support for regional parks through friends groups. In early 2003, the whole MDC system had only 40 friends groups, according to an EOEA survey. Following the award-winning model of New York City's Partnerships for Parks, state officials hope to provide friends groups with "toolkits" they need to assess and improve parks throughout the MDC system, create coalitions of supporters, create public-private partnerships, and advocate for the whole system as well as individual parks. "You want to give people tools they can use in their own ways," says Betsy Shure Gross, a key EOEA official. "But you also want to keep the groups from going in 1,000 different directions."

Since a third of the state's population living in the MDC's area, a third of the legislators of Beacon Hill represent MDC cities and towns. Boston-area legislators have also dominated the leadership of the General Court. For more than 25 years, the presidents of the State Senate (Robert Travaglini, Thomas Birmingham, and William Bulger) and the speakers of the Massachusetts House (Thomas Finneran, Charles Falherty, and George Keverian) have represented MDC communities. Many legislators have become intensely interested in controlling what happens with pieces of the system that are in their districts.

Paul Levy, who has won universal praise for his management of the MWRA after it was separated from the MDC, suggested at a Kennedy School appearance in 2002 that the only way to fix troubled old agencies might be to break them up every generation. The Romney Administration has taken that sentiment to heart. It remains to be seen whether the new metropolitan parks management structure produces the reforms needed to restore one of the world's historic park systems.

THE FUTURE OF REGIONAL PARKS IN MASSACHUSETTS

With limited and declining financial resources, a political constituency made up of narrowly focused advocacy groups, criticism of its management and its performance, and the changing needs of its users, the metropolitan park system faces an uncertain future in the first years of the 21st century.

Part of the answer might be the development of a state or regional strategy for a wide range of policy issues, such as housing, transportation, and economic development, as well as open space and the environment. Governor Mitt Romney is exploring strategies for coordinating poli-

cies in these areas. If Romney is able to overcome the decentralized character of the state on economic development and housing, he also could encourage a new regional vision for open space.

No one doubts that the Massachusetts Bay Transportation Authority makes sense as a regional entity and provides a service cities and town by themselves could not. Almost 20 years ago, state officials recognized the modernization of Greater Boston's water and sewer system and the clean-up of Boston Harbor could be achieved only by a regional agency – and created the Massachusetts Water Resources Authority, which has 61 member communities, out the MDC's century-old water and sewer divisions.

The metropolitan park system was created in 1893 as a regional entity for the simple reason that riverbanks and park lands crossed municipal borders. As Charles Eliot told the legislature, "the boundaries of our towns are very apt to bisect the prettiest passages of scenery." Today's deeper understanding of environmental protection, said Valerie Burns of the Boston Natural

'Any time you think about one thing regionally, it makes it that much easier to think of other things on that scale' Areas Network, suggests a regional – rather than municipal – park system is necessary. "You need a regional system because ecosystems and natural systems don't respect political boundaries, so you need a mechanism that can acquire, protect and preserve natural systems," she said. Once the system is broken up, it will be impossible to reassemble or even coordinate, Burns and other parks advocates say. "Think

of the development pressure," Burns said. "You'd have the wealthy communities able to do it and the less wealthy communities unable to do it. What would happen is one city would develop and a city on the opposite banks wouldn't, and you wouldn't have a system – you'd have the range of land uses you have in cities, absent or possibly including some open space."

Despite its many problems, the MDC worked hard in its waning years to upgrade and add to the metropolitan park system. The "Back to the Beaches" initiative includes not only marketing but planned renovations at several of the beaches. A series of new Charles River parks are planned to the north of the dam next to the Museum of Science, made possible partly by the Central Artery project. A sweeping master plan for the improvement of the park land along the historic Charles River Basin has been completed, as have master plans for Alewife Reservation in Cambridge and the Lower Neponset River trail.

Supporters of the MDC – even those that are critical of the system's management – maintain that the system's connectedness is essential to the region's environmental integrity and is essential for creating a strategic approach to regional development. "There is nothing that has changed in the last 110 years that contradicts he original wisdom of the regional model," said Karl Haglund, the historian of the Charles River.

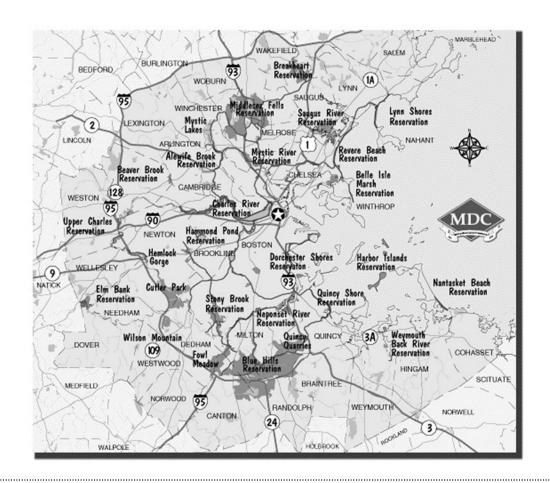
National experts say that some kind of regional parks management offers a wide range of benefits. Myron Orfield, a former state legislator in Minnesota who has become a national expert on regional governance, argues that a well-operated metropolitan parks system can help to foster a broader vision of regional governance. "Any time you think about one think regionally, it makes it that much easier to think of other things on that scale," said Orfield, the author of *Metropolitics*, a nationwide study of the social, economic, and political factors that affect policy and governance at the regional scale. Using parks to create a broader understanding of regionalism is easy in the Minneapolis-St. Paul area, Orfield said, because parks represent "basically an apple pie issue" there. "The park system is about the most popular thing in the world," he said.

Alexander Garvin, one of the nation's leading experts on metropolitan planning and governance, argues that regional entities can be destructive when they provide a wide range of services but work well for specific functions, like water provision, sewerage service, or parks and recreation. "I don't think that a wide range of public services have any *raison d'etre* to be provided at the regional level," said Garvin, who teaches urban planning and management at Yale University and is the author of the acclaimed *The American City: What Works, What Doesn't.* "A regional government can really disenfranchise people at the local level."

Authorities and commissions with a clear mission "tend to work well" when they have a strong management structure and adequate funding. "Sometimes you need to have a single entity to take advantage of the economies of scale." Garvin lists the parks systems of Minneapolis-St. Paul, New York City, Boulder, and Cook County, Illinois, as models of good regional open-space systems. Building such a system takes a major commitment, which has not been seen in Greater Boston for at least a generation. "Minnesota works because it has an elected board and dedicated tax financing and people who are really dedicated to making it work," he said. "It is the best located and designed system in the country. But it took many years to get that way."

Good regional parks management requires strong leadership, good management systems, and reliable funding. "If it's a high priority issue, people can make it work," Orfield said.

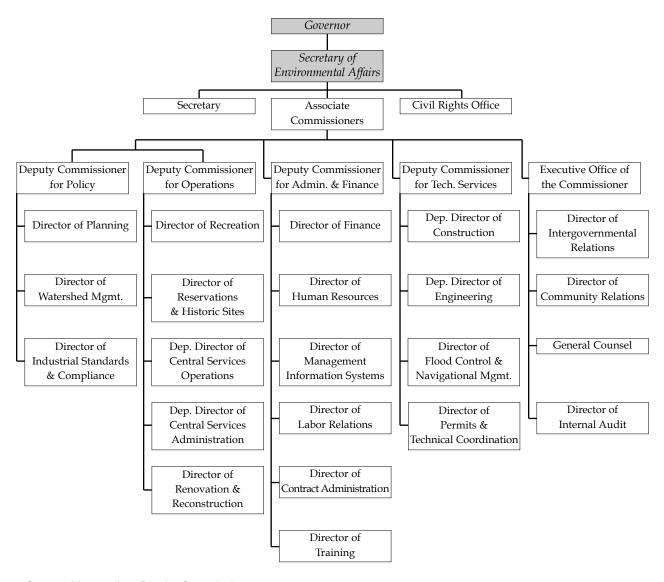
APPENDIX 1: MAPPING THE MDC SYSTEM



APPENDIX 2: MDC TIMELINE

- 1869: Boston landscape designer Robert Morris Copeland proposes regional park system and commission
- 1889: Metropolitan Sewerage Board created
- 1893: Metropolitan Park System created and makes first acquisitions: Blue Hills, Beaver Brook. Middlesex Fells, Mystic River
- 1894: Metropolitan Police established to protect reservations
- 1895: Metropolitan Water Board created
- 1895: Revere Beach waterfront acquired
- 1895: Park System begins construction of first parkway, the Fellsway
- 1896: Water Board begins construction of Wachusett Reservoir
- 1899: Park System establishes Nantasket Beach
- 1901: Water Board and Sewerage Board merge
- 1910: Dam creates Charles River Basin
- 1919: Water and Sewer system combined with Parks System to create MDC
- 1927: MDC builds first artificial skating rink at Blue Hills reservation
- 1929: First Boston Pops Fourth of July concert, conducted by Arthur Fiedler
- 1933: Construction of trails, shelter, weather station at Blue Hills
- 1934: Breakheart Reservation acquired
- 1936: Charles River Esplanade expanded
- 1937: Construction of Quabbin Reservoir begins
- 1949: Quabbin Reservoir completed
- 1949: Construction of Storrow Drive begins
- 1965: MDC hosts first Head-of-the-Charles Regatta
- 1970: MDC acquires Peddocks Island
- 1970: Policing of park land transferred to Parks and Recreation Division
- 1974: Reconstruction of Fort Independence at Castle Island begun
- 1976: 600,000 attend Bicentennial Fourth of July concert
- 1978: New Charles River Dam completed
- 1984: Water and sewer systems transferred to Massachusetts Water Resources Authority
- 1991: Metropolitan Police transferred to Massachusetts State Police
- 1992: Southwest Corridor Park opened; Elm Bank opened

APPENDIX 3: MDC ORGANIZATIONAL STRUCTURE



APPENDIX 4: MDC PRIORITIES FOR ACQUISITIONS

- **Bloom Parcel (Harbor Point North)**, Dorchester Shores Reservation, Dorchester: A four-acre parcel linking the future Harbor Point Park and Carson Beach, creating an eight-mile linear park along the Dorchester and South Boston shores.
- **Quincy Lumber (Historic Tidal Mill)**, Quincy Shores Reservation, Quincy: A five-acre site is one of the two remaining tidal powered mills in Massachusetts.
- **Ricciuti Drive (Quarry Railroad Historic Site)**, Blue Hills Reservation, Quincy: This parcel will provide a key link to the Blue Hills Reservation's Skyline Trail.
- **Colligan (Quincy Quarries)**, Blue Hills Reservation, Quincy: This parcel represents a critical public access link between the Quincy Quarries (site of the first U.S. Railway), the Bunker Hill Quarries and the Blue Hills reservation.
- **Carberry (Border Meadows)**, Canton Avenue, Blue Hills Reservation, Milton: This meadow provides excellent wildlife habitat and protects the important Border Path from development.
- **Kelleher, Gould, and Fitzgerald (Fort Revere)**, Nantasket Beach Reservation, Hull: This is an historic seventeen acre Revolutionary War site that protected the harbor during later wars.
- **Woerd Avenue**, Charles River Reservation, Waltham: This .37 acre site will eliminate an existing break on a public pathway along the south bank of the Charles River in Waltham.
- **Zayre Parking Lot**, Charles River Reservation, Waltham: A portion of this shopping center's parking lot is used primarily for dumping. Acquisition of this piece of land would allow, through proper park design and development, removal of a major blight along an exceptionally scenic section of the river.
- **Haynes (Border Parcel at Hemlock Gorge)**, Charles River Reservation, Newton and Needham: This site will buffer the historic Hemlock Gorge landscape from inappropriate development.
- **Wilson Mountain**, Charles River Reservation, Dedham: Conservation of 122 acres and the 250-foot high Wilson Mountain to protect diverse wildlife habitat and important open space.
- **Armenian Benevolent Union**, Beaver Brook Reservation, Waltham: Acquisition of this 3.5 acre site will fulfill the MDC's long-term goal of extending the reservation boundary westward. This woodland property is integral to the health of the Beaver Brook Basin ecosystem.
- **Whitcomb (Border Meadow at Dedham Street)**, Charles River Reservation, Dedham: This 24-acre parcel features meadows, wooded hills and wetlands along the Charles River.
- **Marginal Street (Mystic Gateway)**, Mystic River Reservation, Charlestown: This parcel will connect the Mystic River Reservation with Boston Harbor and provide the first ever river park access to the Charlestown and Everett communities.
- **Bonacorso (Border Upland)**, Belle Isle Marsh Reservation, East Boston: Acquisition will enable the MDC to restore the wetlands and expand the boundary of Belle Isle Marsh Reservation, Boston's largest remaining salt marsh.
- **Zoppo (Border Tideland)**, Belle Isle Marsh Reservation, Winthrop: This 25-acre parcel provides incomparable views of Belle Isle Marsh and Broad Sound.
- **Jerry's Pond**, Alewife Brook Reservation, Cambridge: This site will provide an open space buffer along the Alewife Brook Reservation and public access link to Cambridge's Russell Field and to adjacent MDC pool.
- **Pinnacle Rock and Black Rock**, Middlesex Fells Reservation, Malden/Melrose: These parcels provide expansive views of the Atlantic Ocean, Harbor Islands and the Blue Hills from rugged exposed outcrops, which define the northern boundary of the Boston Basin.

APPENDIX 5: MDC PARK SPACE BY COMMUNITY

Community	Square Miles	Percentage of MDC District	2000 Population	Percentage of MDC District
Arlington	5.437	1.40%	42,389	2.18%
Belmont	4.765	1.22%	24,194	1.25%
Boston	49.518	12.72%	589,141	30.35%
Braintree	14.364	3.69%	33,828	1.74%
Brookline	6.824	1.75%	57,107	2.94%
Cambridge	7.165	1.84%	101,355	5.22%
Canton	19.511	5.01%	20,775	1.07%
Chelsea	2.209	0.57%	35,080	1.81%
Dedham	10.676	2.74%	23,464	1.21%
Dover	15.434	3.96%	5,558	0.29%
Everett	3.446	0.88%	38,037	1.96%
Hingham	22.751	5.84%	19,882	1.02%
Hull	2.917	0.75%	11,050	0.57%
Lynn	11.447	2.94%	89,050	4.59%
Malden	5.07	1.30%	56,340	2.90%
Medford	8.478	2.18%	55,765	2.87%
Melrose	4.745	1.22%	27,134	1.40%
Milton	13.198	3.39%	26,062	1.34%
Nahant	1.144	.29%	3,632	0.19%
Needham	12.751	3.27%	28,911	1.49%
Newton	18.19	4.67%	83,829	4.32%
Quincy	16.736	4.30%	88,025	4.53%
Randolph	10.454	2.68%	30,963	1.59%
Revere	5.948	1.53%	47,283	2.44%
Saugus	11.417	2.93%	26,078	1.34%
Somerville	4.138	1.06%	77,478	3.99%
Stoneham	6.665	1.71%	22,219	1.14%
Swampscott	3.04	0.78%	14,412	0.74%
Wakefield	7.978	2.05%	24,804	1.28%
Waltham	13.763	3.53%	59,226	3.05%
Watertown	4.12	1.06%	32,986	1.70%
Wellesley	10.501	2.70%	26,613	1.37%
Weston	17.308	4.45%	11,469	0.59%
Westwood	11.154	2.86%	14,117	0.73%
Weymouth	17.687	4.54%	53,988	2.78%
Winchester	6.367	1.64%	20,810	1.07%
Winthrop	2.064	0.53%	18,303	0.94%
MDC DISTRICT	389.38	100.00%	1,941,357	100.00%
STATE	8091.46	4.81%	6,349,097	30.58%

APPENDIX 6: MDC FACILITIES IN 2002

WOODLAND RESERVATIONS (7)

- 1. Belmont/Waltham Beaver Brook Reservation
- 2. Milton Blue Hills Reservation
- 3. Saugus Breakheart Reservation
- 4. Newton Hammond Pond Reservation
- 5. Malden/Melrose/Medford/Winchester/Stoneham Middlesex Fells Reservation
- 6. Quincy Quincy Quarries
- 7. West Roxbury/Hyde Park Stony Brook Reservation

RIVER RESERVATIONS (19)

Charles River

- 1. Charles River Dam
- 2. Charles River Basin and Esplanade
- 3. John F. Kennedy Park
- 4. Landry Parks/Lake District
- 5. Forest Grove Reservation
- 6. Hemlock Gorge Reservation
- 7. Brook Farm
- 8. Village Falls Park
- 9. Cutler Park
- 10. Elm Bank

Mystic River

- 1. Mary O'Malley Park
- 2. Torbert McDonald Park
- 3. Draw Seeven Park
- 4. Mystic Lakes
- 5. Alewife Reservation

Neponset River

- 1. Dorchester Shores Reservation
- 2. Squantum Point Park
- 3. Fowl Meadow
- 4. Neponset Marshes

COASTAL RESERVATIONS(8)

- 1. Boston Harbor Islands
 - · Georges Island
 - · Lovells Island
 - · Peddocks Island
 - · Castle Island
 - Fort Revere
 - · Lightship "Nantucket I" in Quincy
- 2. Belle Isle Marsh Reservation
- 3. Nahant Beach and Lynn Shore Reservation
- 4. Nantasket Beach Reservation
- 5. Revere Beach Reservation
- 6. Rumney Marsh Reservation
- 7. Stodder's Neck Reservation
- 8. Wollaston Beach Reservation

WATERSHED REGIONS (3)

- 1. Quabbin Reservoir, Belchertown
- 2. Wachusetts Reservoir, Clinton
- 3. Sudbury Reservoir, Southborough

ATHLETIC FIELDS (27)

- 1. Belmont/Waltham Waverly Oaks, Trapelo Road (softball, basketball)
- 2. Boston Leiderman Field, Charles Street, West End (baseball, football, softball)
- 3. Brighton Daly Recreation Center, Nonantum Road (football, softball, rugby, lighted)
- 4. Cambridge Magazine Beach Field, Memorial Drive (football, softball)
- 5. Dorchester Leahy Recreational Area, Morrissey Boulevard (basketball)
- 6. Dorchester McMorrow Playground, Victory Road (baseball, softball, basketball)
- 7. Dorchester Toohig Playground, Gallivan Boulevard (baseball, softball, basketball)
- 8. Dorchester (Lower Mills) VFW Playground, Ventura Street (baseball, basketball)
- 9. East Boston Constitution Beach, Orient Heights (softball, handball, basketball, lighted)
- 10. Everett Allied Veterans Recreation Center, Elm Street
- 11. Hyde Park Camp Meigs Playground, Stanbro Street (baseball, softball, basketball)
- 12. Hyde Park Colella Playground, Readville Street (basketball, baseball)
- 13. Hyde Park Connell Field, Enneking Parkway (softball, soccer)
- 14. Hyde Park Gelewitz Field, Turtle Pond Parkway (baseball, softball, lighted)
- 15. Hyde Park Kelly Field, Turtle Pond Parkway (baseball, softball, football, soccer, lighted)
- 16. Hyde Park Moynihan Field, Truman Highway (baseball, basketball, lighted)
- 17. Jamaica Plain Southwest Corridor Park, Lamartine Street (baseball)
- 18. Mattapan Ryan Field, River Street (softball, tennis, basketball)
- 19. Medford Hormel Stadium, Veterans Memorial Parkway (baseball, football, track, rugby, soccer)
- 20. Milton Houghton's Pond Recreation Area (softball)
- 21. Nahant Meehan Little League Field, O'Connor Field (basketball, handball, tennis)
- 22. Quincy Shea Little League Field, Willard Street (baseball, tennis)
- 23. Revere Sullivan Little League Field
- 24. Somerville Dilboy Field, Alewife Brook Parkway (baseball, basketball, football, soccer)
- 25. Somerville Draw Seven Park, Foley Street (soccer)
- 26. Somerville Foss Park, McGrath-OBrien Highway (baseball, basketball, football, soccer)
- 27. South Boston Evans Field, Day Boulevard (football, baseball, softball)

BANDSTANDS AND MUSIC SHELLS (14)

- 1. Boston Hatch Memorial Shell, Storrow Drive
- 2. Hyde Park Kelly Field, Stony Brook Reservation
- 3. Hyde Park Martini Shell, Truman Parkway.
- 4. Brighton Publick Theatre, Christian A. Herter Park, Soldiers Field Road
- 5. Chelsea Mary O'Malley Park, Commandant's Way
- 6. East Boston Constitution Beach, Orient Heights Bathhouse
- 7. Hull Bernie King Pavilion, Nantasket Beach
- 8. Jamaica Plain Stony Brook Deck, Southwest Corridor Park
- 9. Lynn Red Rock, Lynn Shore Drive
- 10. Medford Msgr. John B. Condon Shell, Mystic Valley Parkway
- 11. Milton Houghton's Pond Bandstand, Hillside Street, Blue Hills Reservation
- 12. Revere Revere Beach Bandstand, Revere Beach Boulevard
- 13. Roxbury Mission Hill Deck, Southwest Corridor Park
- 14. South Boston Marine Park Bandstand, Day Boulevard

BEACHES (21)

Fresh Water Beaches

- 1. Milton Houghton's Pond: Blue Hills Reservation, Hillside Street
- 2. Saugus John A. W. Pearce Lake: Breakheart Reservation, Forest Street
- 3. Winchester Sandy Beach: Mystic River Reservation, Upper Mystic Lake

Salt Water Beaches

- 1. Boston Lovells Island, Boston Harbor Islands (no lifeguards)
- 2. Dorchester Malibu Beach, Morrissey Boulevard
- 3. Dorchester Savin Hill Beach, Morrissey Boulevard
- 4. Dorchester Tenean Beach, Tenean Streetoff Morrissey Boulevard
- 5. East Boston Constitution Beach, Orient Heights
- 6. Hull Nantasket Beach, Nantasket Avenue
- 7. Lynn King's Beach, Lynn Shore Drive

- 8. Lynn Lynn Beach, Lynn Shore Drive
- 9. Nahant Nahant Beach, Nahant Causeway
- 10. Quincy Wollaston Beach, Quincy Shore Drive
- 11. Revere Revere Beach, Revere Beach Boulevard
- 12. Revere Short Beach, Winthrop Parkway
- 13. South Boston Carson Beach, Day Boulevard
- 14. South Boston Castle Island, Day Boulevard
- 15. South Boston City Point
- 16. South Boston M Street Beach, Day Boulevard
- 17. South Boston Pleasure Bay, Day Boulevard
- 18. Winthrop Winthrop Beach, Winthrop Shore Drive

BICYCLE PATHS AND TRAILS (6)

- 1. Dr. Paul Dudley White Charles River Bike Path, Boston, Cambridge, Newton, Watertown
- 2. Stony Brook Reservation Bike Path: Turtle Pond Parkway, West Roxbury, Hyde Park
- 3. Mystic River Reservation Bike Path: Somerville and Everett
- 4. Pierre Lallement Bike Path: Southwest Corridor Park, South End/Roxbury
- 5. Blue Hills Reservation: Designated paths for mountain bikes open seasonally
- 6. Middlesex Fells Reservation: Designated paths for mountain bikes open seasonally

BIRDING AND NATURE TRAILS (4)

- 1. Middlesex Fells Reservation
- 2. Blue Hills Reservation
- 3. Beaver Brook Reservation
- 4. Breakheart Reservation

BOAT LANDINGS (14)

Charles River

- 1. Clarendon Street, Back Bay
- 2. Hatch Shell, Embankment Road, Back Bay
- 3. Pinckney Street, Back Bay
- 4. Brooks Street at Nonantum Road, Newton
- 5. Artesani Playground off Soldiers Field Road, Brighton
- 6. Charles River Dam at the Museum of Science, Boston
- 7. Cambridge Parkway near Longfellow Bridge, Cambridge
- 8. Memorial Drive opposite Magazine Street, Cambridge
- 9. Blessing of the Bay, Mystic River, Shore Drive, Somerville
- 10. South Kelly's Landing, Day Boulevard, South Boston
- 11. Charles River, Watertown Square, Watertown

Boston Harbor

- 1. Georges Island
- 2. Lovells Island
- 3. Peddocks Island

BOAT LAUNCHING RAMPS (3)

- 1. Boston Charles River Daly Recreational Center, Nonantum Road in Brighton/Newton
- 2. Medford Mystic River Wellington Yacht Club
- 3. Nahant Nahant Beach Harbor side

CAMPING (2)

- 1. Boston Harbor Lovells and Peddocks Islands
- 2. Saugus Camp Nihan

CANOEING AND KAYAKING (9)

Canoe Launches

- 1. Dover/Wellesley Canoe Launch in Elm Bank Reservation
- 2. Cambridge Charles River, Magazine Beach off Memorial Drive, Charles River Reservation
- 3. Milton Paul's Bridge Canoe Launch, Neponset River, junction of Brush Hill Road and Neponset Valley Parkway.

- 4. Newton Riverside Canoe Launch, Charles River, Nonantum Road
- 5. Needham Canoe Launch, Charles River, Redwing Bay
- 6. Wellesley Westgate Canoe Launch, Charles River, Rt. 30
- 7. Weston Riverside Recreation Area, Charles River, Rt. 128, Exit 23

Canoe Rentals and Instruction

- 1. Newton Charles River Recreation Inc., Canoe and Kayak Instruction, 2401 Commonwealth Avenue
- 2. Charles River Canoe and Kayak Center Kiosk at Artesani Park off Soldiers Field Road

COMMUNITY GARDENS (2)

- 1. Boston Southwest Corridor Park
- 2. Boston Herter Center, Soldier's Field Road Charles River Reservation

ENVIRONMENTAL EDUCATION PROGRAMS (2)

- 1. Camp Nihan Education Center
- 2. Trailside Museum

FISHING (30)

Fresh Water

- 1. Belchertown Quabbin Reservoir 25.
- 2. Belmont Mills Pond, Beaver Brook Reservation, Mill Street
- 3. Boston to Weston: Charles River
- 4. Clinton Wachusett Reservoir
- 5. Hyde Park Stony Brook Reservation, Turtle Pond
- 6. Malden Fellsmere Pond, Fellsway East
- 7. Medford Quarter Mile Pond, Middlesex Fells Reservation.
- 8. Milton-Canton
- 9. Blue Hill River, Blue Hills Reservation
- 10. Houghton's Pond
- 11. Hultman's Pond
- 12. Pine Tree Brook
- 13. Ponkapoag Pond
- 14. Needham Cutler Park
- 15. Newton Hammond Pond
- 16. Quincy St. Moritz Pond
- 17. Saugus Pearce and Silver Lakes, Breakheart Reservation
- 18. Stoneham Dark Hollow Pond, Middlesex Fells Reservation
- 19. Southboro Sudbury Reservoir
- 20. Winchester Aberjona River, Mystic River Reservation
- 21. Winchester/Medford Mystic Lakes, Mystic River Reservations

Fishing - Salt Water

- 1. Boston Harbor Georges, Lovells and Peddocks Islands
- 2. Lynn Lynn Fishing Pier, Lynnway at Gen. Edwards Bridge
- 3. Nahant Nahant Beach, Nahant Causeway
- 4. Quincy Black's Creek, Quincy Shore Drive
- 5. Quincy Old Harbor Park, Harbor Point
- 6. Revere Revere Beach, Revere Beach Boulevard
- 7. South Boston John J. McCorkle Fishing Pier, Day Boulevard
- 8. South Boston City Point, Rotunda, Day Boulevard

Ice Fishing

1. Charles River Lakes District

FOOT PATHS AND TRAILS (6)

- 1. Blue Hills Reservation: Boston, Braintree, Canton, Dedham, Milton, Randolph and Quincy.
- 2. Middlesex Fells Reservation: Malden, Medford, Melrose, Stoneham, and Winchester
- 3. Breakheart Reservation: Saugus, Wakefield
- 4. Stony Brook Reservation: Hyde Park, West Roxbury
- 5. Hammond Pond Reservation: Newton
- 6. Weymouth Back River Reservation: Weymouth

GOLF COURSES (2)

- 1. Canton Ponkapoag Golf Course
- 2. Weston Leo J. Martin Memorial Golf Course

MUSEUMS AND HISTORIC SITES (6)

- 1. Boston Fort Warren, Georges Island
- 2. Boston Fort Independence, Castle Island
- 3. Hull Fort Revere, Telegraph Hill
- 4. Milton Trailside Museum, Blue Hills Reservation
- 5. Quincy The Quincy Homestead
- 6. West Roxbury Brook Farm Historic Site

OBSERVATION TOWERS (8)

- 1. East Boston Belle Isle Marsh (tower 16 feet)
- 2. Milton Eliot Tower (elevation 620 feet), Blue Hills Reservation.
- 3. Medford Wright's Tower (elevation 243 feet)
- 4. Pine Hill, Middlesex Fells Reservation
- 5. Medford Mystic River Reservation Tower (tower 16 feet)
- 6. Milton Chickatawbut Tower (elevation 504), Blue Hills Reservation
- 7. Stoneham Bear Hill Tower (elevation 317 feet), Middlesex Fells Reservation
- 8. Weston Norumbega Tower (elevation 110 feet), Charles River

PLAYGROUNDS (53)

- 1. Arlington- Mystic Valley Parkway near High Street
- 2. Belmont/Waltham-Waverly Oaks, Trapelo Road
- 3. Belmont Mill Pond- Beaver Brook Reservation
- 4. Boston Berkeley Street, Storrow Memorial embankment
- 5. Boston Deerfield Street, Storrow Memorial embankment
- 6. Boston Hereford Street, Storrow Memorial embankment
- 7. Boston Pickney Street, Storrow Memorial embankment
- 8. Boston Union Boat House, Storrow Memorial embankment
- 9. Boston Charlesbank Park, Storrow Memorial embankment
- 10. Brighton Richard T. Artesani Playground, Soldiers Field Road
- 11. Brighton James F. Reilly Playground, Cleveland Circle
- 12. Cambridge Magazine Beach Tot Lot
- 13. Cambridge Murphy's Tot Lot, Greenough Boulevard
- 14. Chelsea Mary O'Malley Tot Lot, Commandant's Way
- 15. Dedham Riversale Park, Bridge Street
- 16. Dorchester Lower Mills VFW Post, Venture Street
- 17. Dorchester Phillip McMarrow Playground, Victory Road
- 18. Dorchester- Rev. William F. Toohig Playground, Gallivan Boulevard
- 19. Dorchester James E. Leahy Recreational Area, Tenean Beach, Morrisey Boulevard
- 20. East Boston Constitution Beach, Orient Heights
- 21. Everett Allied Veterans memorial Recreation Center, Elm Street
- 22. Hull Nantasket Beach Tot Lot, Nantasket Avenue
- 23. Hyde Park Paul J. Colella Memorial Playground, Readville Street
- 24. Hyde Park John H. Dooley Playground, Reservation Road
- 25. Hyde Park William A. Doyle Memorial Playground, River Street
- 26. Hyde Park Lawler Playground, Sunnyside Street
- 27. Hyde Park John F. Monahan Memorial Playground, Truman Highway
- 28. Hyde Park John F. Thompson Center for the Handicapped, Smithfield Road
- 29. Jamaica Plain Anson Street Tot Lot, Southwest Corridor Park
- 30. Jamaica Plain Armory Street Tot Lot, Southwest Corridor Park
- 31. Jamaica Plain Boynton Street/McBride Street Tot Lot, Southwest Corridor Park
- 32. Jamaica Plain Everett Street Tot Lot, Southwest Corridor Park
- 33. Jamaica Plain Joseph E. Johnson Memorial Playground, Southwest Corridor Park
- 34. Jamaica Plain Lawndale Terrace Tot Lot, Southwest Corridor Park
- 35. Jamaica Plain Spaulding Street Tot Lot, Southwest Corridor Park

- 36. Mattapan Msgr. Francis A. Ryan Memorial Playground, River Street
- 37. Mattapan Charles R. Kennedy Memorial Playground, Edgewater Drive
- 38. Medford West Medford Playground, Mystic River Road
- 39. Milton Houghton's Pond, Blue Hills Reservation
- 40. Nahant Nahant Beach Tot Lot
- 41. Quincy Bunker Hill Lane Tot Lot, Furnace Brook Parkway
- 42. Quincy William A. Caddy Memorial Park, Quincy Shore Drive
- 43. Quincy Shea Rink Tot Lot, Willard Street
- 44. Roxbury Mission Hill Deck Tot Lot, Southwest Corridor Park
- 45. Saugus Pearce Lake, Brakeheart Reservation
- 46. Saugus Parcer Park, Brakeheart Reservation
- 47. Somerville Dilboy Field Playground
- 48. Somerville John J. Murphy Jr. Memorial Playground, Foss Park, McGrath Highway
- 49. South Boston Castle Island Playground, Day Boulevard
- 50. South Boston Marine Park Playground, Day Boulevard
- 51. South End Cosmopolitan Playground, Southwest Corridor Park
- 52. Watertown Greenough Boulevard Playground
- 53. Winchester Sandy Beach Playground, Mystic Valley Parkway

ROCK CLIMBING AND BOULDERING

- 1. Brookline/Newton -Hammond Pond Reservation
- 2. Quincy- Quincy Quarries in Blue Hills Reservation

RUNNING PATHS (6)

- 1. Boston -Charles River Basin, approximately 18 miles
- 2. Brighton Cleveland Circle, 1.6 miles
- 3. Hull Nantasket Beach, 3 miles
- 4. Lynn/Nahant Beach 5 miles
- 5. Saugus Breakheart Reservation, 3.1 miles
- 6. South Boston Castle Island, 6.2 miles

SAILING AND ROWING (3)

- 1. Boston Community Boating, Embankment Road on the Charles River Esplanade between the Hatch Shell and the Longfellow Bridge.
- 2. South Boston Harry McDonough Sailing Program, Day Boulevard., Castle Island
- 3. Brighton Community Rowing, Daly Rink, Nonantum Road

SKATING RINKS (20)

- 1. Boston Steriti Memorial Rink, Commercial Street
- 2. Brighton Daly Memorial Rink, Nonantum Road
- 3. Cambridge Simoni Memorial Rink, Gore Street
- 4. Charlestown Emmons Horrigan O'Neill Memorial Rink, Rutherford Avenue
- 5. Somerville Veterans Memorial Rink, Somerville Avenue
- 6. Waltham Veterans Memorial Rink, Totten Pond Road
- 7. East Boston Porazzo Memorial Rink, Constitution Beach
- 8. Everett Allied Veterans Memorial Rink, Elm Street
- 9. Lynn Connery Memorial Rink, Shepard Street
- 10. Medford LoConte Memorial Rink, Veterans Parkway
- 11. Medford Flynn Memorial Rink, Woodland Road
- 12. Revere Cronin Memorial Rink, Revere Beach Parkway
- 13. Dorchester Devine Memorial Rink, Morrissey Boulevard
- 14. Quincy Shea Memorial Rink, Willard Street
- 15. South Boston Murphy Memorial Rink, Day Boulevard
- 16. Weymouth Connell Memorial Rink, Broad Street
- 17. Brighton Reilly Memorial Rink, Cleveland Circle
- 18. Hyde Park Bajko Memorial Rink, Turtle Pond Parkway
- 19. Milton Ulin Memorial Rink, Unquity Road
- 20. West Roxbury Bryan Memorial Rink, VFW Parkway

SKI TRAILS AND SLOPES(4)

Cross-Country

- 1. Weston Ski Track
- 2. Middlesex Fells Ski Touring and Cross-Country Middlesex Fells Reservation
- 3. Blue Hills Reservation Ski Touring and Cross-Country
- 4. Blue Hills Ski Area, Blue Hills Reservation

SWIMMING POOLS (17)

- 1. Boston Lee Memorial Pool, Charles Street
- 2. Brighton Brighton/Allston Pool, North Beacon Street
- 3. Cambridge McCrehan Memorial Pool, Rindge Avenue
- 4. Cambridge Veterans Memorial Pool, Memorial Drive
- 5. Somerville Dilboy Field Memorial Pool, Alewife Brook Parkway
- 6. Somerville Latta Brothers Memorial Pool, McGrath Highway
- 7. Waltham Connors Memorial Pool, River Street
- 8. Watertown Dealtry Memorial Pool, Pleasant Street
- 9. Chelsea Vietnam Veterans Memorial Pool, Carter Street
- 10. Everett Allied Veterans Memorial Pool, Elm Street
- 11. Malden Holland Memorial Pool, Mountain Avenue
- 12. Stoneham Hall Memorial Pool, North Border Road
- 13. Roxbury Cass Memorial Pool, Washington Street
- 14. Weymouth Connell Memorial Pool, Broad Street
- 15. Brighton Reilly Memorial Pool, Cleveland Circle
- 16. Hyde Park Olsen Memorial Pool, Turtle Pond Parkway
- 17. W. Roxbury Phelan Memorial Pool, VFW Parkway

SPRAY POOLS (15)

- 1. Belmont Beaver Brook Reservation, Trapelo Road
- 2. Boston Lee Memorial Pool at Artesani Playground
- 3. Cambridge McCrehan Memorial Pool, Rindge Avenue
- 4. Everett Allied Veterans Memorial Pool, Elm Street
- 5. Hyde Park Moynihan Playground, Truman Highway
- 6. Hyde Park Olsen Pool, Turtle Pond Parkway
- 7. Jamaica Plain Stony Brook Deck, Southwest Corridor Park
- 8. Jamaica Plain Johnson Playground, Green & Lamartine Streets
- 9. Malden Holland Memorial Pool, Mountain Avenue
- 10. Mattapan Ryan Playground, River Street
- 11. Roxbury Mission Hill Deck, Southwest Corridor Park
- 12. Somerville Dilboy Memorial Pool, Alewife Brook Parkway
- 13. Somerville Foss Park, McGrath Highway at Broadway
- 14. Stoneham Hall Memorial Pool, North Border Road
- 15. Watertown Dealtry Memorial Pool, Pleasant Street

TENNIS COURTS (26)

- 1. Belmont/Waltham Waverly Oaks, Beaver Brook Reservation
- 2. Boston North End Park, Commercial Street
- 3. Boston Charlesbank Park, Charles Street
- 4. Canton Blue Hills Reservation, behind Houghton's Pond
- 5. Chelsea Mary O'Malley Park, Commandant's Way
- 6. Dedham Riverdale Park, Bridge Street
- 7. Dorchester Tenean Beach, Conley Street
- 8. East Boston Constitution Beach, Orient Heights
- 9. Everett Allied Veterans Recreation Center, Elm Street
- 10. Hyde Park Camp Meigs, Park Avenue
- 11. Hyde Park Moynihan Park, Truman Parkway
- 12. Hyde Park Martini Shell, Truman Parkway
- 13. Hyde Park Weider Playground, Dale Street
- 14. Hyde Park Dooley Playground, Reservation Road

- 15. Jamaica Plain Stony Brook Deck, Southwest Corridor Park
- 16. Mattapan Ryan Playground, River Street
- 17. Medford Hormel Stadium, Veterans Memorial Parkway
- 18. Milton Houghton's Pond Recreation Center, Rt. 128
- 19. Nahant Nahant Beach, Nahant Beach Parkway
- 20. Quincy Willard Street at Shea Rink
- 21. Roxbury Bromley-Heath Deck, Southwest Corridor Park
- 22. Roxbury Mission Hill Deck, Southwest Corridor Park
- 23. Somerville George Dilboy Field, Alewife Brook Parkway
- 24. Somerville Saxton J. Foss Park, McGrath Highway at Broadway
- 25. South Boston Marine Park, Day Boulevard
- 26. Watertown Canalouga Park, Pleasant Street

ABOUT THE AUTHOR

Mark Leccese, a former Massachusetts State House bureau chief for the Community Newspaper Company, has taught journalism at Boston University and Northeastern University. He has contributed articles to *Boston* magazine, *The Boston Globe, America, The Quill, Boston Phoenix,* and the *Columbia Journalism Review*. He is the author of the forthcoming book *Safe at Home: A Memoir of Agoraphobia and Baseball*.

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