Section 7.3

Analysis of Needs: Open Space Systems Management

Contents

Section 7.3.1:

CEMETERIES

Overview

Boston's historic cemeteries are important examples of the city's early landscape, linking contemporary Boston with a rich historical and developmental legacy. The city's 16 historic burying grounds and three larger garden-style cemeteries date between 1630 and 1892 and are located in 13 Boston neighborhoods. The burying grounds house a rich collection of historic artifacts that tell many stories about Boston's cultural heritage. Gravestones, tomb markers, and monuments honor the many founding members of the community including Revolutionary heroes and men and women of national and international fame. The city's collection of grave markers embodies the distinguished art of many local stone carvers. These stones afford a rare glimpse into Puritan life in the heart of a modern city, where little else remains in context. Collectively they reflect evolving views of life and death. Since their landscapes remain relatively unchanged, they also act as important open spaces in local neighborhoods, often in areas that are densely built with no other available open space.

Boston's burying grounds are important historical sites for a national constituency of academics, descendants, and tourists who visit Boston. Four burying grounds—Granary, King's Chapel, Copp's Hill, and Central—are located along Boston's Freedom Trail and attract an estimated one million visitors annually. Ten historic burying grounds are listed on the National Register of Historic Places; two sites, Central and Walter Street, are National Historic Landmarks. Central is a designated Boston Landmark, as is Dorchester North; the Granary lies within the Beacon Hill Architectural District; the South End Burying Ground is located within the South End Landmark District; and the Eliot (Eustis Street) Burying Ground lies within the Eustis Street Architectural Conservation District.

Historic Burying Grounds Initiative

The Historic Burying Grounds Initiative (HBGI) is an effort of the Boston Parks and Recreation Department to restore the city's historic cemeteries. Combining public and private funding, community support, advocacy, and public education, the Initiative is the largest cemetery restoration program undertaken by a municipality in the United States.

The Initiative grew out of an awareness voiced in the mid-1970s by several local preservation agencies that the effects of age, environment, and deferred maintenance posed an imminent threat of loss to the city's historic burying grounds and thus to the heritage of Boston, New England, and the nation. Acknowledging the historical and artistic importance of these sites in the city's landscape, the Parks Department, the Boston Landmarks Commission, and the Bostonian Society began a collaborative effort to inventory over 15,000 markers and assemble a master plan addressing structural, landscape, and masonry conservation measures in the historic cemeteries. The original HBGI master plan, completed in 1985, guided capital improvements, private fundraising, and partnerships up until the creation of a new historic burying grounds master plan in 1998 by Walker-Kluesing Design Group. During the first phase, activities primarily focused on protection, stabilization, preservation, and restoration of historic artifacts, tomb structures, and retaining walls. These efforts have prevented significant deterioration of these valuable resources and reduced risk to visitors. The Initiative invested over $7 million in improvements since the establishment of the program. Over $1.5 million in restoration and repair projects have been completed since the beginning of 2008.

Active Cemeteries Revitalization

The City of Boston, through the Parks Department, operates three public cemeteries (Mount Hope in Mattapan, Fairview in Hyde Park, and Evergreen in Brighton) for Boston residents, particularly those individuals who cannot afford a more expensive, private cemetery. The Cemetery Division makes approximately 1,000 burials each year. The Cemetery Division has completed Phase II of its expansion plan adding 1,800 double crypt vaults and approximately five to six years of burial space at Fairview Cemetery. Recent improvements include construction of a maintenance facility at Mount Hope, rehabilitation to the administration building and construction of a maintenance building at Fairview Cemetery, and ongoing memorial restoration.

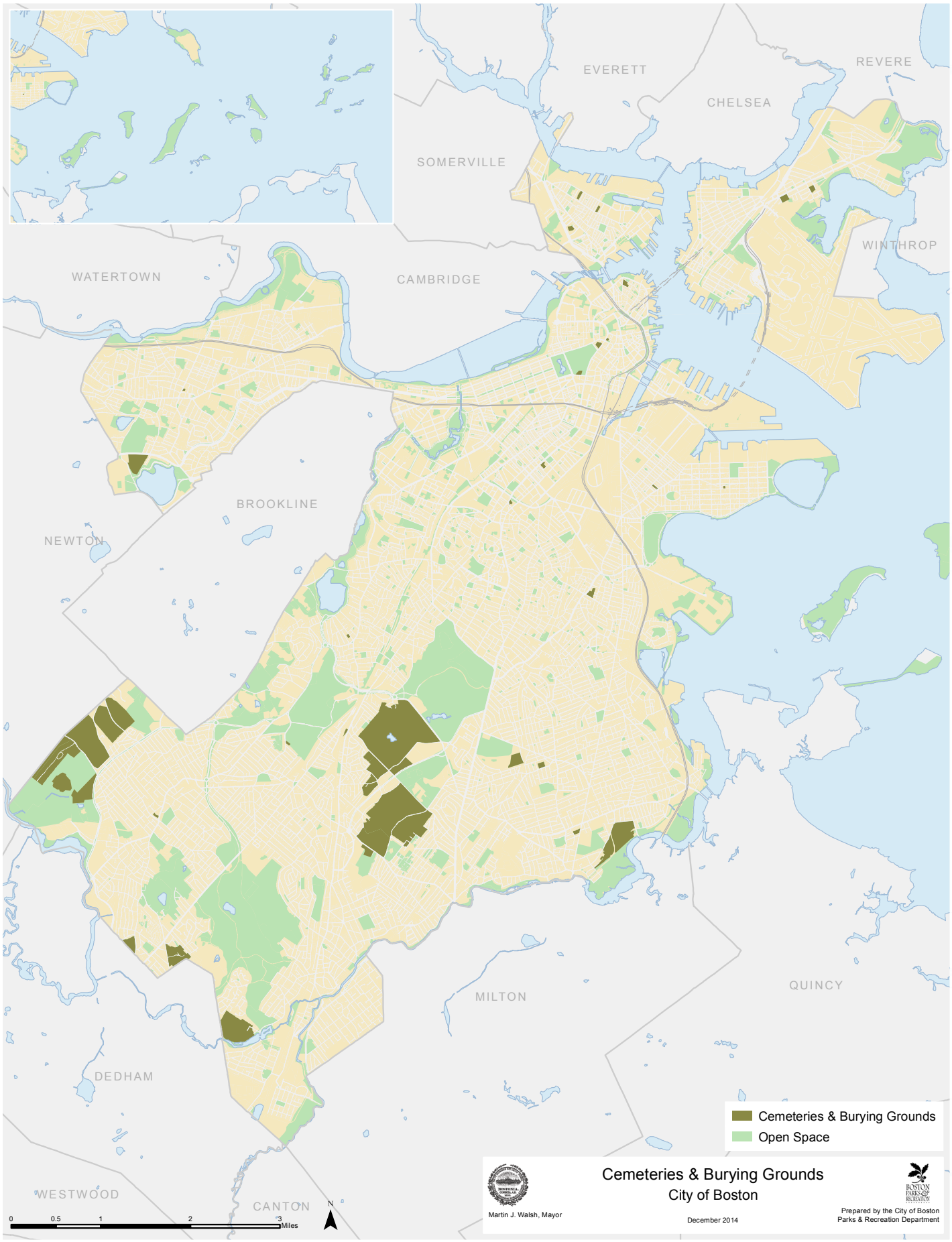
The Next Seven Years

General Accomplishments and Recommendations

The master plans for both the City's historic and active cemeteries guide the implementation of restoration and rehabilitation projects. The primary focus of the previous master plan was on protecting, stabilizing, preserving, and restoring the gravestones, tombs, and physical structures. The new master plan continues these efforts but also devotes more resources toward making improvements for visitors. The plans, however, may be modified or expanded over time in order to reflect changed site conditions and availability of funding.

There has been a new emphasis on disseminating information electronically, primarily through the City of Boston's website. This effort has included creation of a biannual newsletter, reworking of old site maps and the scanning of over 12,000 pages of grave-marker survey sheets. We are currently working with the City's Department of Information Technology (DoIT) to develop several publicly accessible applications including a database containing pertinent information about individual gravestones and an interactive feature using the burying ground maps. The Department will work with DoIT to develop a bid to build a computerized database for active cemetery records as well.

Grant funding has been an integral part of our ability to undertake major preservation projects stretching beyond our annual budget. Projects utilizing grant funding from 2008 to 2014 include conservation of above-ground tombs in Eliot Burying Ground, landscape restoration in Granary Burying Ground, and historic fencing restoration in Copp's Hill Burying Ground. A continued effort must be sustained to search for more grant funding.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City of Boston
Martin J. Walsh, Mayor
December 2014
Prepared by the City of Boston
Parks & Recreation Department

While the historic and active cemeteries have their individual needs suited to particular issues and elements of their landscapes, the following categories of recommendations should guide those issues shared commonly by all 19 sites:

- Continue to implement recommendations for rehabilitation and conservation projects as recommended in the historic and active cemetery master plans.
- Nurture and accentuate landscape features, where appropriate, to provide a more comprehensive experience for public appreciation beyond the gravestones. Improve tree maintenance.
- Continue improvements in information dissemination by working with the Department of Information Technology to complete new burying ground application. Finish updating all site maps. Continue writing of newsletter. Research further use of technology to increase public knowledge of burying grounds.
- Improve conservation knowledge by analyzing success of previous methods and seeking to develop best practices.
- Target improvements designed to encourage visitation. This should include landscape issues related to lawns and plantings, path systems, site amenities, fences and gates, lighting, and an informational and interpretive sign system.
- Using the model of signs recently installed, create signs in other burying grounds where appropriate.
- Continue to seek private funding to complement City capital funding.
- Continue to facilitate use of sites for educational programs and to spread public awareness. Encourage use of historic and active cemeteries as educational resources for schools, the Freedom Trail, and other tourism efforts.
- Implement an historic preservation plan for the three active cemeteries, including marker inventories and landscape restoration plans.
- Implement planting plans for active cemeteries, particularly for new burial areas and expansion areas.
- Accommodate City policy to provide burial space for Boston residents by seeking land within Boston to provide for long-term availability of burial space.

Site-Specific Descriptions and Recommendations

Bennington Street Cemetery, East Boston, 1838

The three-acre Bennington Street Cemetery was laid out five years after Noddle's Island became East Boston. Originally overlooking Boston Harbor, the cemetery now faces Logan Airport and provides an open space in an area dominated by airport and highway traffic. Nineteenth-century markers record the names of East Boston's early residents, including many Eastern European immigrants.

Major repair work was completed in 2009 on the above-ground tomb structures and wall at the northwest corner of the site. Financial limitations prevented us from repairing the above-ground tomb structures along the eastern border of the site.

Recommendations

- Make priority structural repairs to the eastern above-ground tomb structures.
- Restore landscape features such as the pathway system, lawn, the pruning and fertilizing of existing trees, and the addition of new trees.
- Improve site map.
- Continue to support educational and fund-raising efforts in this site.

Bunker Hill Cemetery, Charlestown, 1807

Located on Bunker Hill Street, Charlestown's second cemetery is a reflection of Charlestown's rapid growth during the early 19th-century Irish immigration. The property lies on the site crossed by British fortifications in the Battle of Bunker Hill.

The following projects have been completed at Bunker Hill: completion of Massachusetts Historical Commission inventory form in 2009 as a precursor to a nomination for inclusion in the National Register of Historic Places; site map reworked and digitized in 2012; and repairs to granite piers and front gate in 2013.

Recommendations

- Prepare nomination for inclusion on National Register of Historic Places.
- Conserve and reset gravestones.
- Repoint stone wall at base of fence.
- Work with the Charlestown Preservation Society, the Charlestown Historical Society, and the Charlestown Neighborhood Council to support educational programs and advocacy for fundraising and capital improvements.

Central Burying Ground, Boston Common, 1756

Located on Boylston Street between Tremont and Charles Streets, Central Burying Ground was established in Boston to alleviate overcrowding in the three older burying grounds. It contains the graves of British common soldiers who died during the Revolution, foreigners who died while in Boston, Roman Catholics, Freemasons, American patriots from the battle of Bunker Hill and the Boston Tea Party, painter Gilbert Stuart, and composer William Billings. The large freestanding tomb structure, "The Dell," along the west edge of the burying ground, houses the remains of 200 graves disturbed by street construction.

Repairs to the entrance tomb and some tombs on east perimeter occurred in 2009. Two unusual grave markers were conserved in 2012. The northern site wall and tomb entrances were repaired in 2012, including the conservation of a tomb plaque. An underground tomb along the west perimeter was repaired in 2013.

Recommendations

- Improve site map.
- Reset gravestones that are leaning significantly and those that are lying flat on the ground.
- Install interpretive signs like those in other Freedom Trail sites.
- Renovate lawn areas by filling in depressions and eliminating bare spots.

Copp's Hill Burying Ground, North End, 1659

One of seven 17th century historic burying grounds in Boston, Copp's Hill was a stronghold from which the British shelled Charlestown in 1775. Interred here are Cotton Mather, minister and theologian; Edmund Hart, builder of Old Ironsides; and more than 1,000 African-Americans who constituted the 18th century New Guinea community. One of the few green spaces in the densely built North End, the two-acre burying ground complements Copp's Hill Terrace next door. Together they offer stunning views over Boston Harbor to Charlestown.

Some areas of the brick pathway were repaired in 2009. In 2009 and 2010 the Mather tomb was restored with funding from descendants. In 2013 the Charter Street cast-iron fence was restored, along with three plot fences and the 1840s drinking fountain. The trees in the sites were pruned in 2014.

Recommendations

- Continue preservation efforts of gravestones, repair broken stones, and reset tilted headstones.
- Repoint Snow Hill Street wall.
- Install replica solar lanterns in two gateways.
- Provide further necessary repairs to brick walkways as required due to settlement and frost heaving.
- Continue to work with the Friends of Copp's Hill Burying Ground and the North End/Waterfront Residents' Association to support advocacy for the burying ground, educational programs, and to raise funds for project implementation.

Dorchester North Burying Ground, Upham's Corner, 1633

Located at the corner of Columbia Road and Stoughton Streets, the eight-acre Dorchester North Burying Ground was the town of Dorchester's only cemetery for two centuries. Generations of prominent Dorchester families are represented as well as William Stoughton, Chief Justice during the Salem Witch Trials of 1692; Richard Mather, minister and progenitor of the Mather family; and John Foster, Boston's first printer. Dorchester North contains early slate gravestones of particular artistic merit, including the 17th century John Foster stone, currently exhibited at the Museum of Fine Arts. Nineteenth-century maple and oak trees planted by local horticulturist Samuel Downer remain, but large elm trees have succumbed to Dutch elm disease over the past three decades.

In 2012 the row of above-ground tombs along the eastern wall were repaired along with several underground tombs throughout the site.

Recommendations

- Continue grave marker conservation and resetting.
- Repair two piers and gatepost at the Stoughton Street perimeter wall.
- Take steps to restore the landscape to the Victorian-period style. This should include building a new perimeter path system with selected crossing paths. Renovate lawn areas. Prune and fertilize trees. Restore the former Victorian-period walkway signs.
- Work with the Dorchester Historical Society and community groups to encourage neighborhood involvement and advocacy, special projects, fundraising, and development of education programs.

Dorchester South Cemetery, Lower Mills, 1814

Opened in 1814 to alleviate overcrowding in the Dorchester North Burying Ground, Dorchester South became a noteworthy early example of the garden cemetery movement that began in 1831 with Mount Auburn Cemetery in Cambridge. Samuel Downer, a prominent businessman and horticulturist, designed the landscape as a botanical park with ornamental trees and shrubbery.

Grave markers throughout the site were reset in 2008. The site map was reworked and digitized in 2012. An inventory sheet for the Massachusetts Historical Commission was completed in 2009 and a nomination for National Register status was submitted in 2013.

Recommendations

- Address structural problems of the perimeter walls.
- Repair and paint south and west perimeter fence.
- Repair mound tombs at the interior driveway and at the north edge.
- Reset fallen obelisks.
- Work with community groups such as the Dorchester Historical Society and local schools to encourage programmed use of Dorchester South.

Eliot (Eustis Street) Burying Ground, Roxbury, 1630

Eliot Burying Ground was the town of Roxbury's first graveyard, named after John Eliot, preacher to 17th century Native Americans. Also interred here are generations of local Roxbury families such as Seaver, Ruggles, Williams, Gridley, and Dudley. Today, the burying ground lies within the Eustis Street Architectural Conservation District.

In 2010 the table tombs and above-ground monuments were repaired and conserved.

Recommendations

- Renovate lawn areas by eliminating crabgrass, weeds, and moss. Fill in depressions.
- Reconstruct the path system in the current location and width.
- Install interpretive signage.
- Work with community groups such as the Roxbury Latin School, Historic Boston Incorporated, Discover Roxbury!. and Dudley Square Main Streets to encourage programmed use of Eliot Burying Ground.

Evergreen Cemetery, Brighton, 1848

The Town of Brighton purchased land from the Aspinwall family in order to create a second town cemetery in the newly emerging "garden style." Since parks were not yet part of the public realm at the time, residents used Evergreen's 13.88 acres for passive recreation. Today, it is one of three active City-owned cemeteries in Boston. A monument to Brighton's Civil War

soldiers designed by George Meacham, architect of Boston's Public Garden, is found there. Like Fairview and Mt. Hope, a new name sign was installed here.

Recommendations
- Renovate and repair the administration building.
- Rehabilitate the Civil War Monument and its immediate landscape, correcting erosion problems.
- Reconstruct the roadways.

Fairview Cemetery, Hyde Park, 1892

Fairview reflects the development of the Hyde Park neighborhood. It is the final resting place for James Monroe Trotter, the U.S. Army's first black commissioned officer; Hippolitus Fiske and Charles Jenny, founders of Hyde Park; and John Joseph Enneking, an important member of American painting's turn-of-the-20th century Boston School. The hilly contours of Fairview cemetery lend it an attractive natural quality, and magnificent views of the Blue Hills can be seen from the top of Cedar Grove Road.

Fairview Cemetery is currently the primary location for city burials in Boston. Fairview now also has a columbarium for cremated remains. With Phase II of the expansion plan completed, it has approximately five to six years of burial space left

Recommendations
- Reset and restore grave markers.
- Repair roadways.
- Make landscaping improvements to City Poor Lot and install permanent grave numbering system.
- Follow through on construction of new maintenance building currently being designed.
- Begin Phase II expansion planning for more burial space.
- Reconstruct backside wall.

Granary Burying Ground, Downtown, 1660

Taking its name from the 18th century town grain storage building, the Granary was part of Boston Common when it was established. Today, the two-acre burying ground is enclosed on three sides by tall office and institutional buildings. The Egyptian Revival entry gate and Tremont Street wall were designed by Solomon Willard and built circa 1840. The Granary contains a particularly rich collection of 17th and 18th century gravestone carving, and markers exist here for prominent Bostonians Sam Adams, John Hancock, and Paul Revere, as well as for Benjamin Franklin's family, and, according to legend, Mother Goose.

A collapsed underground tomb was repaired in 2009. Minor fencing repairs were made in 2011. A major landscape restoration was completed in 2012, including widening pathways, providing standing areas for tour groups, installing a new rear path, installing post-and-chain fencing, and tree pruning. Three archaeological test pits were completed in 2013 to determine the construction of the front wall and tombs.

Recommendations
- Restore front cast-iron fence, clean and repair granite wall and entryway.
- Continue to implement grave marker conservation projects.
- Continue good relations with abutters and historical organizations to support educational programs, advocacy for fundraising and capital improvements, and to develop maintenance agreements.
- Continue to support programming through historical organizations.

Hawes/Union Cemeteries, South Boston, 1816/1841

This site is actually contains two cemeteries. John Hawes, a wealthy South Boston resident donated the Hawes portion on Emerson Street. The Union Cemetery on Fifth Street is separated from Hawes by a row of tombs. Prominent local citizens buried in Hawes/Union include John Hawes, Cyrus Alger, and Daniel Simpson.

In 2009 the fences along Emerson and East Fifth Streets were repainted. An inventory for the Massachusetts Historical Commission was completed in 2009.

Recommendations
- Submit nomination for inclusion on National Register of Historic Places.
- Reset the remaining leaning and fallen gravestones.
- Rebuild the transverse mound tombs and reset iron doors. Remove trees adjacent to tombs to avoid deplacement or encapsulation of stone tomb elements.
- Repoint and rebuild brick walls along west boundary. Repoint granite walls along west boundary.

King's Chapel Burying Ground, Downtown, 1630

King's Chapel Burying Ground is the oldest cemetery in Boston and is said to be part of the estate of Isaac Johnson, an esteemed early settler. Royal Governor Andros seized a portion of this property in 1686 to construct the first Anglican Church in Boston. Prominent individuals buried here are John Winthrop, William Dawes, Robert Keayne, founder of the Ancient and Honorable Artillery Company, and Mary Chilton, the first woman to step from the Mayflower in Plymouth.

Minor tomb repairs took place in 2009. The Tremont Street fence was repaired and repainted in 2010 and 11. Tree pruning was undertaken in 2013.

Recommendations
- Address landscape issues in the burying ground.
- Provide minor maintenance work at tombs, including repairing sidewalls, and resetting and conserving tabletops.
- Repair front gate.
- Continue good relations with abutters and historical organizations to support educational programs, advocacy for fundraising, and capital improvements.

Market Street Burying Ground, Brighton, 1764

Market Street Burying Ground was Brighton's primary cemetery until the 1850s when Evergreen Cemetery was established. It had been associated with the Third Church of Cambridge until 1807, when Brighton became a separate town.

The tomb at the rear corner was repaired in 2011. Volunteer growth was removed from the south perimeter in 2012. A site map was created in 2014.

Recommendations

- Reset leaning gravestones, conserve broken stones and stabilize tomb to the left of the entrance.
- Prune trees, renovate lawn areas as required.
- Repoint north wall Market Street wall. Remove calcium carbonate deposits on Market Street wall.

Mount Hope Cemetery, Mattapan, 1851

Mount Hope is the largest of all City-owned cemeteries. Its 125 acres contain burial plots for veterans of all wars since the Civil War; members of a variety of organizations such as the Elks, Odd Fellows, and Masons; the oldest burial area for Boston's Chinese immigrants; and a monument to the Irish patriot, John E. Kelly. Influenced by Mount Auburn and Forest Hills Cemeteries, Mount Hope's landscape design is based on the garden-style cemetery. Curvilinear tree-lined roads and two man-made ponds grace its rolling landscape.

Recent work here includes an entrance renovation (2010 to2011) and the restabilization of the chapel (2011 to 12).

Recommendations

- Inventory, repair, and replace decorative path and walk signs.
- Prune, fertilize, and otherwise maintain the older tree stocks at Mount Hope through a $70,000-per-year program for the removal of dead and diseased trees and the pruning of healthy trees.
- Resurface and repair roadways.
- Restore chapel to enable its use by the public.

Phipps Street Burying Ground, Charlestown, 1630

One of the few vestiges of 17th century Charlestown after the British leveled the town during the Revolution, Phipps Street Burying Ground also contains some of the finest early gravestone carving to be found in the eastern United States. A granite obelisk memorializes John Harvard, founder of Harvard College and Charlestown resident, and a plaque marks the burial location of Nathaniel Gorham, a signer of the U.S. Constitution.

A new site map was created for the site in 2012. In 2013 repairs were made to tomb entrances and the beginning phase of Japanese Knotweed eradication was started.

Recommendations

- Continue Japanese Knotweed eradication program until removal is complete.
- Conduct grave marker conservation project.
- Clean, prime and paint perimeter and Harvard Monument fence. Repair gate at Harvard Monument.
- Straighten perimeter fence posts and pickets. Repair access gate.
- Repair existing path.
- Work with the Charlestown Preservation Society, the Charlestown Historical Society, and the Charlestown Neighborhood Council to support educational programs and advocacy for fundraising and capital improvements.

South End Burying Ground, South End, 1810

Known as the workingman's burying ground, most burials in this South End cemetery are not marked, and successive filling of the marshy site permitted burials in several tiers. A plan for the site guided the construction of walled tombs around the perimeter of the cemetery that today dominate the site. Once square in shape, the burying ground is now L-shaped, indicating that a quarter of the original site has been acquired by abutters.

The site map was updated in 2012. Some minor masonry repairs were carried out in 2013.

Recommendations

- Prune existing trees, and plant new trees according to the master plan.

Walter Street Burying Ground, Roslindale, 1711

The Walter Street Burying Ground was originally created as part of the Second Church of Christ of Roxbury in a site adjoining the Peter's Hill area of the Arnold Arboretum. Prominent local families interred there include Baker, Chamberlain, Weld, Child, and Mayo. A marker indicates burial here of American Revolutionary War soldiers who died from war wounds or disease at the Greenough House in Jamaica Plain. An inventory form was done for the Massachusetts Historical Commission.

Recommendations

- Repair entrance stairways by replacing the missing stones, repointing steps, and painting handrail.
- Submit nomination for individual listing on the National Register of Historic Places.

Westerly Burying Ground, West Roxbury, 1683

Westerly Burying Ground gave inhabitants of Jamaica Plain and West Roxbury a nearby place to bury their dead and served as the West Roxbury graveyard for 268 years. The burying ground provides a visual record of three centuries of early settlers, and examples of local gravestone carving.

The large Wiggins monument and three other grave markers were conserved in 2008. The ornamental cast-iron plot fence was conserved and repaired in 2009.

Recommendations

- Reset gravestones and repair mound tombs.
- Repair and repoint north and south walls.
- Prune existing trees.
- Clean and paint Centre Street fence and gate.

Section 7.3.2:

COMMUNITY GARDENS

Introduction

Boston has 175 community gardens located in 11 Boston neighborhoods. Not many decades ago, they numbered a handful. The growth of community gardens across the city demonstrates a strong commitment for these special forms of green space. An integral part of the open space network of parks, playgrounds, natural areas, and unbuilt spaces in the city, these community gardens are perhaps the most personal and directly representative green spaces in their neighborhoods.

Community gardens are vital focal points in many Boston neighborhoods and unique among the city's open space types. Most began and continue as food-producing plots used by people of limited means but have also grown to serve as important social and educational centers for gardeners, their families, and neighbors. Gardens facilitate the empowerment of residents by involving them in community planning processes that define an appropriate balance of open and built spaces. Community gardens also serve to welcome newcomers to existing neighborhoods and offer neighbors common goals of healthy active living. The work involved in creating and preserving community gardens has brought many residents together, whether or not they are gardeners, to both protect neighborhood character and provide the space necessary for gardening and gathering.

Usefulness, self-sufficiency, beauty, productivity, cooperation, and education are some positives that grow out of community gardens in addition to the food and flowers raised. Well-managed gardens are a source of community pride, while flourishing gardens contribute to the perception of gardens and their environs as secure, healthy spaces within Boston's neighborhoods. Residents use community gardens as safe meeting places, and by virtue of the variety of cultures represented by the city's gardeners, these spaces are also a common meeting ground for shared neighborhood experiences.

The community gardens of Boston range in size from the Clark-Cooper Community Garden at the Massachusetts Audubon Nature Center (the former Boston State Hospital lands in Mattapan) and the Boston Parks and Recreation Department's Richard Parker Victory Gardens in the Fenway, each with more than 300 individual garden plots, to tucked-away places developed on corner vacant house lots with as few as ten plots. In these varied gardens, approximately 15,000 residents harvest a wide array of food annually, generating fresh, healthy produce that in turn contributes significantly to the household budgets of low- to moderate-income families. Gardens are located in almost every city neighborhood and are owned by city and state agencies and a variety of non-profit entities. Community gardens are located on parkland, the grounds of public housing developments, and school and social service agencies. Many, particularly those owned by non-profits, are located on formerly abandoned or undeveloped lots. Community gardens also reflect the city's diverse ethnic make-up with significant representation of Asian, Caribbean, Eastern European, African-American, and Hispanic populations.

This plan is a summary of information and goals defined by the many agencies and organizations instrumental in the development, support, maintenance, funding, and advocacy for community gardens in Boston. The plan's overall intent is to set realistic goals for the next seven years, goals that will sustain a larger and more long-term vision for the gardens.

History and Development

Historically, Boston has one of the oldest and largest community gardening systems in the United States. In the 1890s, with the onset of an economic depression, vacant lots and city land were set aside for food production by individuals. During World War I, community gardening surfaced again in Boston as "Victory Gardens," providing food for local consumption as much of the nation's commercial food supply was allocated for shipment abroad. During World War II, community gardening again became a critical component of the war effort by significantly buttressing domestic food production.

The Fenway Victory Garden (later named the Richard D. Parker Memorial Victory Gardens) is one of the few Victory Gardens in the country that dates from World War II. However, in the 1970s additional community gardens arose from vacant house lots created by arson, abandonment, and demolition, especially in the most economically distressed neighborhoods. Strong grassroots efforts toward community development, self-help, and state legislation resulted in the creation of many new gardens.

Other early efforts such as Boston's Revival Program resulted in 30 new community gardens during the 1970s. In 1976, Boston Urban Gardeners (BUG) was founded as a non-profit organization to further the interests of gardening groups. With their support, community gardening emerged from the 1970s as a solid neighborhood-based system.

In the 1980s, community gardens faced important battles for property rights in a climate of aggressive development and re-zoning. Because the city faced extreme financial cutbacks, the Boston Natural Areas Fund—now known as Boston Natural Areas Network (BNAN)—purchased at gardeners' request and protected 16 of the Revival Gardens from the City of Boston. The South End/Lower Roxbury Open Space Land Trust (SELROSLT) was established and formalized in 1991. A Boston Redevelopment Authority (BRA) contract was established with the national non-profit Trust for Public Land and Boston Urban Gardeners to assist with the formation of SELROSLT. This effort permanently protected 16 community gardens and pocket parks owned by the BRA.

To address continuing concerns for ownership, investment and support, Garden Futures was formed in 1994 by BUG, BNAN, SELROSLT and Dorchester Gardenlands Preserve. These groups collectively undertook a study of their 60 non-profit owned gardens in order to better able to understand capital and human infrastructure needs related to long-term sustainability. The report was issued in early 1997 and recommended new efforts toward education, networking, and public outreach.


EVERETT
REVERE
CHELSEA
SOMERVILLE
WINTHROP
WATERTOWN
CAMBRIDGE
BROOKLINE
NEWTON
MILTON
QUINCY
DEDHAM
WESTWOOD
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Community Gardens
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Prepared by the City of Boston
Parks & Recreation Department

By 2012, Garden Futures, the gardens owned by BUG (which had closed its doors in 2000), and SELROSLT were acquired by BNAN making it the single largest non-profit owner of community gardens in Boston. In addition to its protection of 59 community gardens, BNAN expanded its capacity to provide garden education and resources for all of the city's 175 gardens and serves as a central home for all Boston's community garden information.

In recognition of its growth and expanded work, in 2001, the organization's name was updated to Boston Natural Areas Network. In the last ten years, BNAN's staff and the annual budget have grown fivefold. In recognition of the growing demands and responsibilities that rest with the organization, BNAN became a division of the Trustees of Reservations (TTOR) in 2006. The Trustees of Reservations is a nonprofit organization dedicated to preserving properties of scenic, historic, and ecological value throughout Massachusetts. The affiliation of a state-wide and city-wide organization will bring unprecedented conservation capacity and create a new paradigm for how such work is done in the City of Boston and in Massachusetts; bringing together the complementary strengths of each organization.

In 2014, BNAN has formally integrated into TTOR, so that it will be the Boston Region of TTOR. This means that many support functions that BNAN performed for itself will now be provided by TTOR, leaving more time, resources, energy, and efficiency for delivering on the core mission.

Ownership, Investment, and Support

Public Ownership and Support

The City of Boston owns many community garden properties through the Boston Redevelopment Authority, the Boston School Department, the Department of Neighborhood Development (DND), and the Parks Department, which owns six community gardens within public parkland. The DND plays a crucial role in garden ownership as the agency that manages land that became City-owned through abandonment and foreclosure: many of these are vacant lots. Some of these properties have been allocated for community gardens. In addition, the Boston Housing Authority (BHA) provides community gardening opportunities at a number of its residential developments citywide.

The Commonwealth of Massachusetts, via the Department of Conservation and Recreation (DCR), also owns land in Boston where community gardens are located. Public support for community gardens is evidenced through the Parks Department's outreach through its community outreach coordinator and its Maintenance Division, working with other community garden service providers, and supporting spring and fall garden clean-ups with trash pickups. The Department's Park Partners program includes community gardens in its growing list of open spaces and their advocates.

The DND administers the Grassroots Program, which competitively awards federal Community Development Block Grant (CDBG) funds to neighborhood groups for converting vacant land into community gardens. Through Grassroots, existing gardens have been improved and new gardens created.

Over the last five years, the Grassroots Program has awarded approximately $1.9 million of federal funds from the Department of Housing and Urban Development's Community Development Block Grant Program. These grants were directed toward community-sponsored, nonprofit-developed projects in Boston's low and moderate income neighborhoods. The Grassroots Program has also worked to renovate and expand some of the city's largest community gardens including Leyland Street Community Garden in Dorchester, Nightingale Community Garden in Dorchester, and Rutland Washington Community Garden in Roxbury. The program will continue to support opportunities to revive older community gardens and expand the number of plots in existing community gardens especially where there are opportunities to use city owned land to do so. In total, over 26 community gardens, 2 new urban farms and 9 other projects in the development stage have been assisted by the Grassroots program from 2007–2014.

Along with continuing to support the City's community gardens, the Grassroots program continues to assist in the creation and strengthening of long-term community assets. Two examples are the renovation and expansion of Revision Urban Farm which included a new greenhouse, retaining wall, and learning amphitheater for its youth training programs; and the construction of the Roxbury Community College Garden, which is integrated into the college's entrepreneurship courses, and assisted by the school's greenhouse, so as to assist in its food production and access programming.

The Grassroots Program has also worked on collaborative projects with other City agencies, namely the Urban Agriculture Pilot Program in association with the BRA and the Mayor's Office of Food Initiatives. The 2010 pilot resulted in the development of two new urban farms in Dorchester, the Tucker Callendar Street Urban Farm managed by Revision House/Victory Programs, and the Glenway Bradshaw urban farm managed by City Growers/Urban Farming Institute. These new farms were key to the development of Boston's Article 89 Urban Agriculture Zoning approved in November 2013.

In addition, Grassroots funded the design and construction of two community gardens at Boston Housing Authority's Old Colony and West Broadway developments working with South Boston Grows and the South Boston Neighborhood Development Corporation. The BHA and Grassroots will continue to consider other possible opportunities to develop community gardens.

Through an open Request for Proposals (RFP) process, the Grassroots Program has also conveyed property to nonprofit grantees. The Boston Natural Areas Network received land and funding for the creation of two gardens in Dorchester and the renovation and expansion of another in Roxbury. Other organizations such as The Cooper Center in Roxbury, the Nonquit

Neighborhood Association, the NUBIA Center and the Egleston Community Orchard (via the Commonwealth Land Trust) also were conveyed land for open space use.

Finally, the state provides some resources to urban community gardeners. The Massachusetts Department of Food and Agriculture facilitates the establishment of farmers' markets.

Private and Non-Profit Ownership and Support

While the Commonwealth and the City own the land of several community gardens in Boston, most are owned by private and non-profit entities.

Among these non-governmental organizations, BNAN stands out for its longevity and ability to adjust to changing circumstances and opportunities. It supports and owns 59 community gardens and advocates for new ones, particularly in lower income areas. As the newest region of the statewide land preservation group The Trustees of Reservations, BNAN helps sustain the current levels of support for community gardens while planning for future growth.

The Next Seven Years

Since the 1970s, community gardens have emerged as an integral element of Boston's open space system. Today community garden space is in demand in a number of city neighborhoods, yet stability and permanency remain issues for many established sites. Recommendations should respect the delicate balance between external support services and self-sufficiency. The following list delineates areas of focus over the next seven years:

- Community Gardens and Community Development
- Acquisition and Protection
- Maintenance and Support
- Capital Investment
- Education, Training, and Programming
- Management
- Productivity
- Resource Development

Community Gardens and Community Development

Community gardens serve many functions in a neighborhood: as sources of fresh food; as gathering areas facilitating communication among neighbors; as a recreation resource (annual Gallup Polls continually show gardening to be one of the most popular leisure activities); and as crime-free areas which can provide an extra measure of security to neighboring homes. In short, a flourishing community garden can help grow not only healthy foods, but a more livable neighborhood as well.

Goals

- Involve neighborhood organizations, residents and youths in planning, building, and maintaining community gardens.
- Support community-based initiatives to develop new gardens and improve existing ones.
- Target neighborhoods where community garden improvements will help leverage other funding and support other community development initiatives.

Recommendations

- Provide publicly funded grant programs to support garden capital, operating, and programming needs.
- Continue and expand DND Grassroots program to create new and update existing community gardens owned by non-profit organizations
- Encourage gardeners and their leadership to participate in neighborhood-wide organizations.
- Advocate for a balance of open space and built areas in both publicly and privately funded development projects.
- Develop sources of financial support for community-based organizations to be able to assume long-term responsibility for maintaining community gardens.
- Encourage community participation in public agency neighborhood development projects to ensure that community garden interests are promoted and incorporated into project plans.

Acquisition and Protection

The local food movement has grown substantially over the last seven years. The public is more aware today of what they are eating and are looking for fresh, safely grown and prepared food. This interest in growing and eating fresh produce means that more people are looking for space for their own garden. In a dense city, this interest can generate a dramatic demand for community garden space.

Great strides have been made to secure established community garden lands in Boston through purchase by non-profit organizations. Yet some community gardens remain unprotected or threatened by development, whether owned privately or by an agency of the City of Boston or the Commonwealth of Massachusetts.

As the City of Boston and non-profit groups plan for Boston's open space, the important need for gardens should be considered when setting priorities for acquisition.

There is a need for more land trusts as the number of nonprofits and neighborhood groups interested in developing community gardens has greatly increased.

Goals

- Provide long-lasting protection to community gardens.
- Encourage the establishment of new community gardens and encourage other non-profit organizations and groups, such as CDCs, to become garden owners or partners with a public agency owner.
- Engage private multifamily residential housing and low and moderate housing owners in the development of community gardens on their property.
- Develop more public support for land trusts through resources and training on their structure and organization.
- Continue to evaluate community gardens as candidate sites in the City's Open Space Acquisition Program.

Recommendations

- Develop a defined process to secure and manage long-term community gardens through the coordination of public, non-profit, and community resources. Develop mechanisms for long-lasting protection while allowing for flexibility to respond to future needs should community gardening interest wane in particular areas.
- Establish efficient processes by which public agencies, non-profit groups such as CDCs, and multi-service centers can become community garden owners.
- Make private multifamily residential housing owners aware of opportunities to acquire land for community gardens to provide financial and health benefits for their residents.
- Assess needs for new community gardens and new models for community garden types.
- Evaluate opportunities for incorporating community garden space on public recreational land through the appropriate agency's capital redevelopment process.
- Encourage the creation of more small land trusts in order to hold, own, and manage land for community garden use.

Maintenance and Support

Community gardeners, as volunteers, manage most day-to-day maintenance and operations within the 175 individual community gardens. Training for maintenance skills on both public and private land is also provided by non-profit organizations such as BNAN. In addition, City agencies such as the Parks Department and the Public Works Department contribute to this effort.

Maintenance activities are, therefore, spread among both gardeners, garden support groups and garden owners. Technical assistance and education from organizations such as BNAN, help small garden groups to accomplish realistic maintenance goals. Larger or more complex needs such as waste removal, utilities, emergency repairs and delivery of compost, soil, woodchips, or manure are best addressed with a scale of support represented by the Parks Department, Public Works Department, and the Water and Sewer Commission. The importance of public sector maintenance support is critical to the success of the community gardens across Boston and needs immediate attention by City agencies

Goals

- Reinforce and systematize basic maintenance services to community gardens citywide.
- Encourage environmentally sound and efficient gardening practices such as composting and water conservation.

Recommendations

- Encourage materials recycling, including composting, by the gardens, garden support entities, and public agencies. Build on city mandate for restaurant composting to increase the availability of low cost local compost/soil.
- Continue removal of seasonal clean-up trash by the Parks Department and expedite a program for the Public Works Department to include such items in its regular contracted waste removal process, so that garden waste is picked up as part of residents' trash pickup.
- Continue to provide and deliver compost—with the compost tested annually for possible contaminants—to community gardens.

Capital Investment

Building a garden can be a process that radically transforms an area from a derelict wasteland into a source of pleasure and pride. A garden encourages neighbors to be outdoors, to talk with each other, and to get involved. A garden that is built by a community will reflect its spirit—the uniqueness of each site, the characteristics of the larger community, and the talents and efforts of the individuals involved.

Capital items such as water systems, soil enhancement, and equipment are essential elements in the life of a community garden. Investing in new gardens or improving existing ones may be the first step toward investment in other neighborhood facilities.

Areas of potential need for capital funding encompass land (discussed above in "Acquisition and Protection"), initial garden construction, and ongoing re-investments:

- **Water —** Install hook-ups, including meters and backflow prevention devices; upgrade and repair watering systems.
- **Development —** Design services for a community-determined plan for the garden infrastructure; contractor, engineering, technical assistance, and project management services needed to build infrastructure; programs to train new gardeners and establish long-term maintenance strategies.
- **Materials —** Supplies and hardware necessary to construct and sustain a garden.
- **Equipment —** Tools for initial construction but more crucially, the hoes, rakes, shovels and other tools needed for day-to-day gardening.

Goals

- Develop permanent, rolling funding stream for capital investments in new and renewing community gardens.
- Reduce the capital costs of developing community gardens by encouraging the co-development of community gardens with residential, institutional, and other developments.
- Support ongoing funding from the US DHUD Community Development Block Grant Program for the Grassroots Program.

Recommendations

- Provide financial support for ongoing community garden capital assessments.
- Continue to earmark through DND's Grassroots program a substantial portion of federal Community Development Block Grant funds for development of community gardens.
- Work with gardening organizations, along with appropriate public and private sector representatives, to help enable local garden groups to plan and pay for water system installations, upgrades, and subsequent water charges themselves.
- Encourage a streamlined process for the engineering and permitting of water line construction at community gardens by

non-profits. Pair this with more research and cost assessment of onsite water retainage systems.
- Develop a marketing campaign to local nonprofits on the virtues of including community gardens in their development plans.

Education, Training, and Programming

Community gardens have both a great need for and the substantial promise of education and training that will ultimately enhance their communities. Appropriate educational programs can assist gardeners of all ages in a mutual quest to grow nutritious food, beautify neighborhoods through site improvement, and manage gardens equitably.

Several grassroots organizations that pursue goals directly or indirectly related to nourishing community gardens are already in place.

The Master Urban Gardener Program (MUG) offered by BNAN, meets many of these community garden education and training needs. The program includes 30 hours of classroom instruction, discussions and hands-on demonstrations of gardening skills that range from plant propagation to establishing community garden rules. Those who

complete the MUG Program agree to give back at least 30 hours of garden volunteer time. Since MUG was initiated, over 500 gardeners have completed the program. They have, in turn, generated more than 150,000 hours of volunteer time for Boston's community gardens.

The annual Boston Gardeners Gathering—meeting for 38 years—provides an opportunity for many gardeners to attend workshops and learn from each other. Northeastern University has become a valuable community gardening resource through offering classrooms and technical support for the MUG program and also hosting the Gardeners Gathering on its campus.

The Food Project operates two "urban farms" in Boston to develop youth leadership skills where produce is raised for city markets and city youth are trained and utilized in all phases of growing food.

Since 2011, when the Earthworks organization closed its doors, BNAN has taken over the management of the Urban Orchard Project in conjunction with the City's Grow Boston Greener program and support from MA DCR. The Urban Orchard Project establishes and cares for productive fruit-bearing plantings in undeveloped open spaces, schoolyards, housing developments, and other sites which integrate community gardening with fruit, berry, and nut growing.

The ReVision House in Dorchester is a shelter for homeless young women and their children. Part of their program includes an urban micro-farm that grows a wide variety of food crops on three reclaimed lots totaling one acre for shelter residents, sale to the public, and to restaurants. Internships provide training to shelter residents and local students in hands-on gardening skills.

Community gardens can also lead to neighborhood efforts beyond the garden gate. Leadership development training is the basis of the MUG Program and community support activities of BNAN and its member organizations. Gardeners are increasingly being encouraged to provide greening projects, education, food donations, and other services to their neighborhoods.

Goals

- Continue to form partnerships with and provide resources to organizations such as BNAN and its member non-profit organizations to further training.
- Support training programs in landscape skills, gardening, and leadership to promote both the proper uses of materials and environmental awareness.
- Continue the efforts of the Boston Garden Council, a gardener-operated advocacy, information, networking, and awareness organization working to strengthen community gardens.
- Enhance skills, experience, and confidence of gardeners as open space advocates, community planners, and stewards.

Recommendations

- Establish a broad-based advisory group to strengthen, expand, and coordinate with the environmental education efforts for children and youth in all areas of Boston.
- Develop expanded opportunities for field trips, hands-on training, environmental education, and awareness for the Boston Youth Fund.
- Continue to support the annual Gardeners Gathering and the Boston Garden Council, both of which strengthen the network of community gardeners citywide and highlight urban gardening techniques.
- Support BNAN's Master Urban Gardener (MUG) program and other initiatives that provide leadership training for community gardeners and include current leaders as resources.

Management

Efficient management of community gardens comes from the strong leadership of coordinators who are typically responsible for most garden-wide functions. Leadership, however, must empower gardeners rather than create dependency. It is essential to the creation and continued existence of such leadership that there be strong outreach and support from a network of public and non-profit agencies.

The preferred management structure is a leadership team that includes a liaison/contact who collects plot fees, calls for services, and coordinates clean-ups and special efforts.

As noted in an earlier section, BNAN's MUG Program now addresses many of these concerns. Coursework includes classes related to garden coordinators, their various roles, and how they can create leadership teams to better accomplish the multiple tasks involved with managing a community garden open space.

Goals

- Identify strong leadership in gardens and increase the percentage of gardeners involved in garden leadership and maintenance.
- Sustain the network of agencies and community organizations committed to the support of community gardens as a permanent part of the city's open space.

Recommendations

- Support and expand programs such as the MUG Program that develop leaders and formalize a support network among them on both a citywide and neighborhood basis.
- Support organizations such as BNAN that institutionalize a support network of city and state agencies, landowners, non-profit organizations, and garden leaders by identifying relevant organizations, defining their contributions, and developing their commitments to gardens.
- Provide weather-resistant bulletin boards within each community garden to facilitate the dissemination of information pertinent to garden management and for general informational purposes as well as a place to display BNAN's list of Good Gardening Practices.

Productivity

The influx of immigrants from gardening and farming cultures along with others of lesser means results in many people turning to gardening as a vital source of nutrition for their families. Garden plots in the city are generally small and there are not enough to meet the demand from new gardeners each year. Thus, only by increasing productivity can more food be made available to more people.

Another issue related to productivity is soil condition: often it is shallow, lacking in organic matter, and must be tested for lead and other pollutant toxicity. There is also a lack of topsoil to compensate for erosion and years of intense growing and the necessary organic matter is either unavailable or too expensive for most gardeners.

Goals

- Develop and implement an educational program that emphasizes safe, low-cost intensive gardening techniques.
- Provide materials and equipment that will increase productivity.
- Reduce the capital costs of developing community gardens by supporting key elements as primary city infrastructure such as water lines and compost/soil.

Recommendations

- Design new gardens and redesign older ones to promote intensive production of food.
- Deliver tested compost to gardens annually where significant erosion has occurred or enhancement is needed. Build on city mandate for restaurant composting to increase the availability of low cost local compost/soil.
- Educate gardeners on organic gardening methods, closer spacing, improved varieties, spot placement of fertilizer, advantages of mulching and compost making, use of season extenders and preventive measures, and prompt action for pest control.
- Support non-profit organizations such as BNAN and its member organizations to create demonstration gardens at locations throughout the city, emphasizing safe, low-cost intensive gardening techniques.
- Educate gardeners to eliminate the use of pesticides and herbicides for the good of the public, the environment, and their own health.

Resource Development

The mosaic of support for community gardens is broad and complex, combining government, voluntary, and private support for maintenance, materials, labor, and special projects. The need exists to further develop this support network so as to achieve all the goals of the community gardening system.

Goals

- Develop, through the initiative of garden support agencies and organizations, private/public partnerships and expanded private financial support to assist community garden programs, special initiatives, and vocational training efforts.

Recommendations

- Continue to commit substantial portions of DND's Grassroots Program for community garden land development by non-profit organizations. Maintain DND planning for Grassroots program grants as a public/private process involving neighborhood residents and garden support entities.
- Develop sources of low-level funding as a means for providing grants to community groups for community gardens.

Section 7.3.3:

THE EMERALD NECKLACE

Overview

The Emerald Necklace is an internationally renowned 19th century linear park system as well as a nationally significant work of landscape architecture, sanitary engineering, and city planning. Frederick Law Olmsted, Sr., the leading landscape architect of the era, created this system to expand the open spaces of Boston Common, the Public Garden, and Commonwealth Avenue Mall into Boston's growing neighborhoods. His vision sought to solve a difficult series of public health and civil engineering problems with verdant scenery that brought "peace and refreshment to the city dweller."

> We want a ground to which people may easily go after their day's work is done, and where they may stroll for an hour seeing, hearing and feeling nothing of the bustle and jar of the street. We want, especially, the greatest possible contrast with the restraining and confining conditions which compel us to walk circumspectly, watchfully, jealously, which compel us to look closely upon others without sympathy.
>
> - F.L. Olmsted, 1870

Olmsted created a progression of landscapes connecting to the downtown parks that culminated in an extensive "country park." He designed landscapes evocative of New England's natural scenery with carefully composed valleys, meadows, and woodlands. Olmsted re-envisioned a tidal marsh in the Back Bay Fens, sculpted a river ravine known as the Muddy River, preserved Jamaica Pond, designed the Arnold Arboretum grounds, and transformed farmlands into the inspired Franklin Park. In 1893, Olmsted wrote to his partners John Charles Olmsted and Charles Eliot, "Nothing else compares in importance to us with the Boston work … I would have you decline any business that would stand in the way of doing the best for Boston all the time."

The nearly 1,000 acres of the Emerald Necklace represent a model park system inspired by the civic-mindedness of the late 19th century. At that time, the concept of public parks took hold in American cities to provide healthful relief from urbanization and the associated pollution, noise, and overcrowding. The Necklace gave the pedestrian, equestrian, or carriage rider an hour's or a day's recreation without leaving Boston. Age, natural selection, and successive changes in landscape fashions and levels of care have diminished Olmsted's rich composition of plants. However, these Olmsted-designed parks continue to offer scenic enjoyment, a respite from city life, and wildlife habitat in the midst of a highly urbanized region, as well as storm water management in the Muddy River basin.

The Emerald Necklace directly serves eight of Boston's neighborhoods with numerous and varied places for quiet contemplation, enjoyment of scenery, and active play – regardless of a park user's recreational interest, economic status, or cultural identity. These places provide the settings for families and individuals to walk, run, play ball, birdwatch, use tot lots, picnic, golf, cross country ski, fish, skate, toss a frisbee, fly a kite, rent a boat, or just sit and enjoy these restful green spaces in the city. For Greater Boston, the Necklace is an important regional recreational destination for everything from fund-raising walks and the Franklin Park Zoo to the Boston Common holiday tree-lighting ceremony and collegiate cross-country running races. The system attracts national and international attention as city planners, landscape architects and designers study historic solutions to contemporary challenges like stormwater management and multi-modal access.

All parks (including parkways) within the Necklace are designated Boston Landmarks with the exception of Arnold Arboretum. All are listed in the National Register of Historic Places. Boston Common, the Public Garden, and Arnold Arboretum are additionally designated as National Historic Landmarks, the highest tier of the National Register.

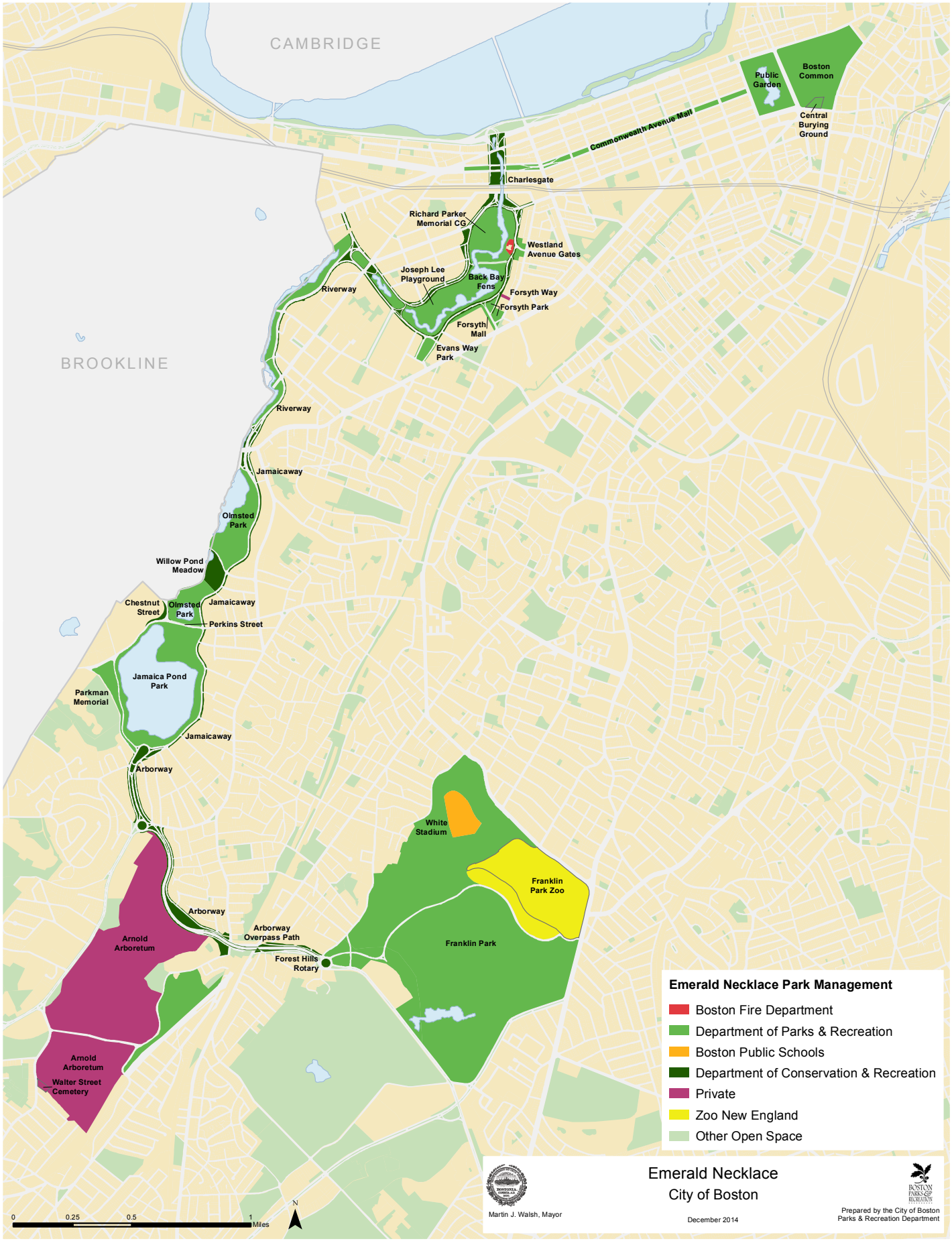
Comprehensive Planning

The Emerald Necklace is made up of nine parks: Boston Common, the Public Garden, Commonwealth Ave Mall, Back Bay Fens, the Riverway, Olmsted Park, Jamaica Pond, the Arnold Arboretum, and Franklin Park. It includes Boston's oldest park, its largest park, its most heavily-used parks, its most venerable collection of public woodlands, an early model for an urban sanitary system, and one of the world's most respected arboretum collections. Their protection and ongoing rehabilitation are guided by a collection of master plans. These master plans present an array of recommendations that seek to restore the historic integrity of each park while accommodating contemporary uses.

The genesis of these plans came from organized support for the protection of this park system. The Friends of the Public Garden sought to protect Boston Common from overuse. It could no longer be "all things to all people," and needed a management plan to structure its use. The Massachusetts Association of Olmsted Parks (now incorporated into Preservation Massachusetts) championed the Olmsted firm's role in planning and design for 280 municipal public parks statewide, which resulted in historic park planning and revitalization initiatives.

The Massachusetts Department of Environmental Management (DEM) launched the statewide Olmsted Historic Landscape Preservation Program in 1984. Through this program, Boston participated in two plans: the Franklin Park Master Plan 1990 and the Emerald Necklace Master Plan for Jamaica Pond, Olmsted Park, the Riverway and the Back Bay Fens (final draft completed in 1990, updated and published in 2001).

Each plan for the Emerald Necklace parks has synthesized historic information, contemporary activities, and input from extensive community processes. The result is a series of master plans that provide a flexible framework for action. At any time new information can be factored in and considered with each master plan's guiding principles and recommendations. For elements such as planting, fencing, lighting, statuary, paths, furnishings, signs, and structures there are clear directives based upon historic documents, design precedents, and preservation guidelines. Over the


CAMBRIDGE
BROOKLINE
Public Garden
Boston Common
Central Burying Ground
Commonwealth Avenue Mall
Charlesgate
Richard Parker Memorial CG
Westland Avenue Gates
Joseph Lee Playground
Back Bay Fens
Forsyth Way
Forsyth Park
Forsyth Mall
Evans Way Park
Riverway
Riverway
Jamaicaway
Olmsted Park
Willow Pond Meadow
Chestnut Street
Olmsted Park
Jamaicaway
Perkins Street
Jamaica Pond Park
Parkman Memorial
Jamaicaway
Arborway
White Stadium
Franklin Park Zoo
Arborway
Arnold Arboretum
Arborway Overpass Path
Forest Hills Rotary
Franklin Park
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Emerald Necklace
City of Boston
Martin J. Walsh, Mayor
December 2014
Prepared by the City of Boston
Parks & Recreation Department

next seven years as projects are identified, staff will assess needs, analyze existing conditions, and seek community input during the process that leads to final project design.

Recent Capital Investments

The City of Boston has been able to proceed with capital investments using multiple resources, such as monies administered by the Office of Budget Management and the Trust Office. The parks also receive support from by many private sector parties, including neighbors, local institutions, and extraordinarily dedicated parks friends groups.

Principles, Goals and Recommendations

The sections below summarize the recommendations from the various published master plans. For more extensive explanations, please refer to the master plan documents. General principles, goals, and recommendations are listed first, followed by park-specific descriptions and recommendations. These plans guide Emerald Necklace revitalization efforts.

General Goals for the Emerald Necklace

Historic Landscape Integrity. Rehabilitate each park's historic character and features to sustain overall historic integrity while serving contemporary uses.

Unity and Access. Improve connections to make the system more unified and legible as a whole, facilitate use, improve public safety, and increase appreciation. Examples include better routing and signage, pedestrian signals and curb cuts, and continued implementation of the systemwide sign program.

Awareness and Education. Foster interpretive and educational programs and continue to strengthen Boston Park Ranger presence. Foster increased programming to reach children and adults, residents and visitors. Coordinate interpretive efforts by all groups to assure fullest possible coverage without duplication of services.

Safety and Security. Continue to work closely with the Boston Police and community groups to address and avoid problems. Exercise the limited enforcement powers of the Boston Park Rangers to create an atmosphere of security and safety.

Trees. Provide improved care for all trees. Develop and implement planting plans consistent with historic design intent and tree care standards. Coordinate the efforts of agencies, community groups, and potential donors to ensure that all trees—new and existing—receive adequate maintenance.

Shrub Plantings. Replant Olmsted-inspired shrub beds in specific areas to regain lost scenic artistry conveyed by their variety, textures, and colors. Use plantings to combat problems such as desire paths that cause soil compaction and erosion. Adapt plant materials as needed to address security, environmental, maintenance, and wildlife management factors while respecting historic design intent. Coordinate the efforts of agencies, community groups, and potential donors to ensure that all plantings—new and existing—receive adequate maintenance.

Woodlands. Develop a regeneration plan to improve the woodland ecology. Collaborate with partners on response to disease and infestations including Asian Longhorned beetle, Hemlock Wooly Adelgid, Dutch Elm, etc. (See Trees, above.)

Wildlife Management. Protect wildlife habitats when making decisions regarding rehabilitation efforts. Strive to enhance nesting and feeding areas.

Water Quality. Advocate for, support, and participate in efforts to improve water quality in Scarborough Pond and the Muddy River from Ward's Pond to the Charles River. Follow master plan guidelines regarding bank stabilization, replanting, and perimeter paths. (Please refer to the Muddy River section of this chapter.)

Infrastructure. Rehabilitate water, drainage, electrical, road, and path systems as needed, observing applicable city, state, and federal regulations along with current planning guidelines. Maintain fountains, lights, paving, and other elements for public safety and protection of capital investments.

Structures. Rehabilitate walls, bridges, shelters, buildings, terraces, and other structural features that contribute to the design of the parks to the maximum extent feasible. Replace intrusive structures that have necessary functions with structures of more suitable design.

Existing Art Work and Memorials. Maintain existing public art and memorials in accordance with the jurisdiction of other City agencies. Encourage ongoing efforts by the City's Adopt-a-Statue Program. Continue the moratorium on new artwork and memorials in Boston Common and the Public Garden.

Memorials and Gifts. Avoid the proliferation of non-contextual memorials and artwork. Encourage contributions to Parks Department planned or approved projects on a case-by-case basis. Work with partners and others to ensure proposed donations are consistent with all applicable plans, regulations and community needs. Encourage proponents to meet with the Boston Parks and Recreation Department for guidance early on in planning for any proposed gifts to parks. Coordinate through the Parks Department the review of proposed projects in accordance with the jurisdiction of other City agencies, primarily the Art, Conservation, and Landmarks Commissions.

Intrusive Elements. Remove or mitigate the effects of structures, buildings, furnishings, or features that conflict with the visual character of Emerald Necklace parks or compromise the protection and preservation of these parks.

Fundraising and Collaborative Efforts. Continue efforts to secure outside funds given the special needs of Emerald Necklace parks and government fiscal limitations. Work with the Emerald Necklace Conservancy, Friends of the Public Garden and other advocacy organizations in their collaborative and fundraising efforts. Support the Conservancy's Emerald Necklace endowment fund named for the late Boston Parks Commissioner

Justine Mee Liff. Foster partnerships and collaborations to support maintenance, capital, and programming projects for preservation and revitalization.

Maintenance. Continue efforts to ensure a high level of maintenance to meet the high demands and historic significance of Emerald Necklace parks. Continue to upgrade equipment and increase human resources. Further develop partnerships that provide extraordinary care.

Project Review and Approvals. All capital projects shall undergo community review led by the Parks Department for city projects. Projects proposed by park partners shall also go through a community review process with the participation of the Parks Department. Secure all other applicable city, state, and federal review and approvals for city projects and participate in securing outside approvals for projects by partners. Meet with Parks Department staff at the early planning stage for any project not initiated by the Parks Department which will directly affect Emerald Necklace parks and for any development, building, or improvement project proposed that will have direct or indirect impacts on, or that is within 100 feet of, Emerald Necklace parkland. Provide direction and oversight for the planning and design of outside projects through Parks Department staff.

Park Specific Descriptions and Recommendations

Boston Common

Boston Common was formed in 1634 to provide pasturage and other shared needs for the town, based upon the English concept of common land. As the country's oldest public open space, Boston Common reflects events important to the history of the city and nation. Since Revolutionary times, the Common has been the city's favorite outdoor place for public assembly.

By 1830 the town had become a city, the sophisticated State House looked down upon a Common bordered by rows of trees, and cows were banned by municipal decree. Throughout the 19th century and into the early 20th century, Boston Common gained paved walks, statues, memorials, and ornamental fences, becoming an urban park in form as well as function. Today the five-sided, 48-acre Common is admired as much for its landscape features of mature shade trees and rolling lawns as for its historic structures, artwork, and Frog Pond.

While serving as Boston's front lawn to all visitors, the Common is also the favored location for large outdoor gatherings and a neighborhood park for downtown, Chinatown, Bay Village, Beacon Hill, and the Back Bay. Active recreation facilities consist of two tennis courts, a softball field, a Little League field, a children's play area, as well as a summer water spray pool and winter ice-skating rink at the Frog Pond.

Recommendations

All policies, projects, and programs for the Common will continue to recognize the need to preserve it as the primary green oasis in downtown Boston, protecting against incursions or degradation to its environment of shade trees and expansive lawns.

- Concentrate on trees and turf as well as general cleanliness, recognizing that the Common receives exceedingly high use and stress.
- Renew focus on rehabilitation of basic infrastructure including paths, drainage systems, and site furnishings, as well as soiland plant health.
- Make general water, drainage, and path systems rehabilitation a priority to be implemented both as independent projects and as opportunities are presented by other projects that will disrupt the Common, such as the reconstruction of the underground garage and the rehabilitation of Tremont Street.
- Continue partnership efforts with the Friends of the Public Garden and other involved agencies such as the MBTA and the Boston Landmarks Commission, as well as with neighbors and developers.

The Public Garden

The Public Garden is the oldest public botanical garden in the United States and the formal, passive recreation companion to Boston Common. These side-by-side parks together serve as a major green oasis in central Boston.

When the Public Garden was established in 1837, the site was marshland at the foot of the Common and the water's edge of the Back Bay. When the land was filled in, the Public Garden's design evolved from a plan by George Meacham published in 1859. The picturesque style of the 25-acre park centers on the central lagoon with its signature bridge, Swan Boats, and willow trees, as well as surrounding specimen trees, serpentine paths, ornamental fountains, sculpture, and planting beds.

Recommendations

The essential style and character of the Public Garden shall be preserved and reinforced through capital projects, maintenance activities, and administrative policies.

- Make a high priority repairs to the tool shed, fountain restorations, and pathway improvements.
- Renew focus on rehabilitation of basic infrastructure including paths, drainage systems, and site furnishings, as well as soil and plant health.
- Continue Boston Landmarks Commission and Art Commission (if applicable) review of proposed improvements to ensure that the historic character of the Public Garden is maintained.
- Look for ways to expand educational opportunities in this passive park to increase enjoyment of horticultural and artistic elements.
- Continue to retrofit fountains to recirculate water.
- Continue the Parks Department's above-standard level of horticultural and general maintenance for this public botanical garden. Continue supplemental care via partnerships, such as with the Friends of the Public Garden.

Commonwealth Avenue Mall

Commonwealth Avenue Mall was built by advancing westward from the Arlington Street edge of the Public Garden from 1856 to 1888. As the Back Bay was filled in, Commonwealth Avenue became its spine. The design for Boston's version of a grand Parisian boulevard is credited to Arthur Gilman.

These 32 acres stretch from Arlington Street to the MBTA subway and bus terminal at Kenmore Square, interrupted by the Massachusetts Avenue underpass, the Muddy River, and the Casey overpass at Charlesgate. Many of the Mall's elms have died from Dutch Elm Disease. To avoid future vulnerability to any single species, the elms have been replaced with a variety of trees. The central path features statuary.

Recommendations

The Parks Department will continue its partnership with the Commonwealth Avenue Mall Committee and neighbors to pursue funding and complete ongoing projects.

- Complete the tree replacement plan. Maintain established trees through institutionalized care such as cyclical pruning and inoculation of elms. Continue to provide extraordinary care for trees and bedded plants through the Commonwealth Avenue Mall Committee.
- Renew focus on rehabilitation of basic infrastructure including paths, drainage systems, and site furnishings, as well as soil and plant health.
- Complete lighting for the other remaining memorial statuary as lighting designs are approved.
- Install ornamental fences on Fairfield and Gloucester Streets consistent with the fencing on the cross streets from Arlington to Dartmouth.

The Muddy River

The Muddy River, the 3.5-mile spine of the Emerald Necklace, is an historic urban waterway that flows through the Riverway and Fens. Its glades, dells, sweeping vistas, reflecting pools, and ponds are an integrated composition of civil engineering and landscape art.

Flood damage in 1996 and 1998 brought civic leaders, politicians, and community groups together to collectively re-examine the condition of this natural treasure and its importance to the metropolitan area. The result: the City of Boston and the Town of Brookline are working with the Commonwealth of Massachusetts and the US Army Corps of Engineers to provide flood damage reduction and ecosystem restoration. The Muddy River rehabilitation project will significantly reduce flood impacts while also provides a unique opportunity to restore areas of the Emerald Necklace.

Boston and Brookline envision that the public funds invested in this project will inspire and attract additional private monies for future historic landscape rehabilitation projects, which will ultimately lead to the completion of the Emerald Necklace rehabilitation. The first Phase of the project including daylighting a section of the river at the former Sears parking lot and providing challenge improvements. The second phase of the project is now being designed by the US Army Corps of Engineers.

Challenging problems face this national historic resource. Moderately heavy rains activate emergency measures to contain stormwater and reduce back-ups in Fenway/ Longwood-area colleges, universities, and medical institutions, and numerous Brookline businesses and residences. Acres of mature Phragmites (tall invasive reeds) choke the river and diminish its flood-carrying capacity. The weeds have displaced other plant species, keeping the ecology out of balance, undermining bio-diversity, and obstructing historic landscape rehabilitation. Contaminants in the river sediment continue to degrade water quality as the sediments get re-suspended into the water, limiting the number of vertebrate and invertebrate species that could contribute to a balanced ecology.

One hundred years ago, Frederick Law Olmsted believed that nature could restore the human mind and spirit. He conceived the unique urban landscape called the Emerald Necklace to bring a natural regenerative experience to city dwellers. Like their 19th century predecessors, today's civic leaders and citizens must commit to stewardship for future generations and sustain a legacy worthy of Olmsted and his peers.

The vision for this project is far-reaching: rehabilitation of the Muddy River will protect the health, safety, and welfare of citizens, re-establish the Olmsted scenery to approach its former glory, and reinvigorate the overall park experience. The municipalities are committed to exploring new and innovative ways to maintain the parks in perpetuity, and protect and preserve the public sector's investment. The park owners (Boston, Brookline, and the DCR), the Emerald Necklace Conservancy, and the Muddy River Maintenance Management and Oversight Committee have signed a landmark agreement to create a five-member cabinet that will ensure the long-term maintenance of the completed project. Boston and Brookline will continue to pursue partnerships with private industry and cultural institutions, and examine organizational models that could inform park maintenance and management practices. The project exemplifies a renewed appreciation of the Emerald Necklace and the reinforced political will to commit to the rehabilitation of this world-class park system.

The Back Bay Fens

The Back Bay Fens dates from 1879, and is the first of the five properties Frederick Law Olmsted designed and built to create a linear system of pastoral parks in Boston. Here the Muddy River originally met the Charles River in a brackish marsh.

Of Olmsted's Emerald Necklace parks, the Fens is the most changed and one of the most active. Meadows and lawns replaced marsh after the Charles River was dammed in 1910. Without tidal action, the shallow pools had become stagnant. In the nineteen teens and twenties, landscape architect Arthur Shurtleff redesigned the park, creating more groomed and formal design than Olmsted's original. It now features the popular Kelleher Rose Garden, the World War II, Korean War, and Vietnam War Memorials, and the Joseph Lee playground—a cluster of recreational facilities that includes Roberto Clemente ball field. The Henry Hobson Richardson-designed Boylston

Street Bridge is the most dramatic of all the stone bridges in the Necklace. It is now obscured from the Charles River side due to the addition of the Bowker Overpass ramp from Storrow Drive.

The Fens provides essential neighborhood parkland for the Fenway, Kenmore, and Longwood areas, and serves as the "front lawn" for several of the city's venerable cultural institutions, including the Museum of Fine Arts and the Gardner Museum. It also includes the Richard Parker Memorial Victory Garden, Boston's oldest community garden.

Recommendations

The Boston Parks Department will continue to manage competing uses for active and passive recreation while preserving the Fens.

- Improve the watercourse and adjacent landscape through the Muddy River Rehabilitation Project.
- Renew focus on rehabilitation of basic infrastructure including paths, drainage systems, and site furnishings, as well as soil and plant health.
- Designate quiet/passive recreation areas.
- Continue the partnership agreement with the Fenway Alliance and Fenway Garden Society.

The Riverway

The Riverway, established in 1890, begins at Brookline Avenue, Park Drive, and the Fenway parkway, on land that was formerly the Sears parking lot, just west of the Fens. From the Park Drive/Riverway intersection southward to Route 9, the Muddy River is open and flows through a gentle ravine. Steep wooded banks insulate the park from the city. These banks are also a vital component of this tightly engineered landscape. They are flood control berms that hold stormwater in the park until it can be safely and slowly discharged downstream though the Charles River to Boston Harbor.

The Riverway offers one of the most idyllic and best-preserved experiences of Frederick Law Olmsted's designs. Three stone bridges span the water and the boundary between Boston and Brookline. The Riverway is popular with walkers, birders, bicyclists, and people seeking a contemplative refuge. Neighbors from the Audubon Circle, Fenway, Longwood, and Mission Hill areas and Brookline use this park. Many workers from neighboring hospitals and cultural institutions enjoy walks in the shade of the parks towering oaks.

Recommendations

The Parks Department will continue structural rehabilitation and replanting to fully reinstate the scenic glory of the Riverway.

- Foster joint projects between Boston and Brookline to implement preservation projects.
- Renew focus on rehabilitation of basic infrastructure including paths, drainage systems, and site furnishings, as well as soil and plant health.
- Restore the former Sears parking lot to open waterway as part of the Muddy River Project.
- Improve the watercourse and adjacent landscape through the Muddy River Project.

Olmsted Park

Olmsted Park, originally named Leverett Park, was established in 1891 at the upper end of the Muddy River as a succession of ponds set in mix of woodlands and open fields. In many areas the fields have been lost either to development of athletic facilities or expansion of wooded areas. The deep-set basin of Ward's Pond is nestled in a wooded bowl from which the Babbling Brook leads to a series of small ponds becoming a brook again as it flows into Leverett Pond, the park's largest body of water. The long pond shapes the more open north end of the park.

The water system demarcates the Boston-Brookline boundary, as the Muddy River does in the Riverway. While invisible to most park users Olmsted Park is divided between three jurisdictions: the more formal park and pathways on the Brookline side of the waterway; the wooded areas and fields in Boston; and a Massachusetts Department of Conservation and Recreation (DCR) owned parcel near the center of the park. Once the home of a large Quonset hut covering a skating rink, the DCR parcel includes an area that stretches from opposite Castleton Street on the Jamaicaway to the town line with Brookline to Willow Pond Road. The woods, clearings, ponds, and streams are interrupted by Willow Pond Road and then curve around two very heavily-used ball diamonds at Daisy Field. Olmsted Park retains several original stone pedestrian bridges and a stone headwall at Leverett Pond. The Route 9/Huntington Avenue overpass, separating Olmsted Park and the Riverway, was built in the 1930s. Olmsted Park is a very popular neighborhood open space resource for Mission Hill and Jamaica Plain, as well as Brookline.

Recommendations

The Parks Department will focus its rehabilitation efforts on woodland management and the restoration of Ward's Pond and other park water bodies.

- Work in partnership with the Army Corps of Engineers, Commonwealth of Massachusetts, Town of Brookline and the community on the design and implementation of waterway improvements as part of the Muddy River Project Phase II.
- Renew focus on rehabilitation of basic infrastructure including paths, drainage systems, and site furnishings, as well as soil and plant health.
- Correct drainage at Daisy Field to improve conditions at Leverett Pond.
- Further improve the Ward's Pond landscape. Restore understory plantings. Restore the pedestrian path all around the water's edge.
- Support the efforts by the DCR and the Conservancy to manage the state-owned former Kelly Rink site as a meadow and their protection of Spring Pond.

Jamaica Pond Park

Jamaica Pond Park, situated between Perkins Street and the Arborway, was established in 1892. This 50-foot deep pond is the source of the Muddy River. From a formal entrance at Pond Street with a boat house and bandstand, the vista presents a green-fringed blue water sheet against tree-covered Hellenic Hill. Olmsted did little to change the landscape.

Jamaica Pond is one of the city's most heavily-used neighborhood parks. Visitors come from Boston, Brookline, and other communities in the metropolitan area. Walkers and joggers circle the 1.4-mile perimeter of the pond. Sailboats and rowboats are available for rent at the Boathouse, which also has a snack concession.

Recommendations

The Parks Department must continue to carefully protect this park and its surroundings to balance heavy user demands with the preservation of historic features and natural systems.

- Renew focus on rehabilitation of basic infrastructure including paths, drainage systems, and site furnishings, as well as soil and plant health.
- Continue programming with community participation. Emphasize activities singularly suited to Jamaica Pond such as gatherings at the bandstand and the current environmental education and boating programs.
- Work with the owners and the community to preserve Hellenic Hill, a BRA-designated urban wild owned by Hellenic College and an essential component of the scenery and ecosystem of Jamaica Pond.

The Arnold Arboretum

The Arnold Arboretum was established in 1872. Located south of Jamaica Pond, the Arboretum is managed by Harvard University under a 999-year lease with the City of Boston that was signed in 1882, thus establishing a longstanding partnership. Within its 273 acres, the landscape's informal character provides a country park experience including dramatic views from atop Bussey Hill and Peters Hill. The artful and studious planting of the Arboretum collection results from the collaboration between Frederick Law Olmsted and Charles Sprague Sargent. The legacy of earlier estate owners is retained by name in such features as the Walter Street Burying Ground, Bussey Brook, and Weld Street.

The Arboretum is bordered by the neighborhoods of Jamaica Plain, Roslindale, and West Roxbury. Known worldwide for its scientific collection of trees and shrubs, it also serves as a favorite regional and neighborhood passive park.

Recommendations

The Parks Department encourages ongoing collaboration between the staffs of the Arboretum and the Department.

- Continue to rehabilitate pathways, roads, walls, and other infrastructure components with input from the Arnold Arboretum staff.
- Support the opportunity to interpret the South Street Tract as an urban wild.
- Monitor the Institutional Master Plan revision to insure that future developments are consistent with the intent of the lease from the Parks Commission.

Franklin Park

Franklin Park accounts for more than half of the land area of the Emerald Necklace park system and approximately one-quarter of the total parkland owned by the City of Boston. Landscape historians and designers have hailed it as one of the finest public parks ever built. Franklin Park's design dates from 1885. Its 484 acres, arranged in a diamond shape, touch the neighborhoods of Roxbury, Jamaica Plain, Roslindale, Mattapan, and Dorchester. A century after its creation, Franklin Park is still a much-needed refuge from the city. It suffered a severe decline in the 1960s and 1970s, but is now significantly rehabilitated and well visited. With its broad views, 65-acre Wilderness woodland area, and peaceful Scarborough Pond, the park still magically suggests a rural retreat. There are picturesque ruins of a shelter and terrace on Schoolmaster Hill above the meadow and the remains of the Playstead Overlook Shelter.

Designed as the active part of the park, the Playstead has versatile, popular playing fields and White Stadium. The revitalized Franklin Park Zoo, managed by Zoo New England, and the William Devine Golf Course (in Olmsted's Country Meadow) bring thousands of visitors annually. In 1998, the City completed a golf course clubhouse that was inspired by the Olmsted-designed Playstead Overlook Shelter which had been lost to fire in the mid-20th century.

Because it accounts for approximately one-quarter of the City of Boston's parkland, its maintenance and capital improvement needs continue to be substantial, particularly because a significant amount of the park's vegetation, structures, and infrastructure is a century old.

Recommendations

In Boston, the median size of a park is less than 1.5 acres. As the largest park in the Parks Department's system at 484 acres and an internationally recognized historic landscape design achievement, Franklin Park poses many challenges today. While the downtown parks high level of use means higher than standard wear and tear and higher than standard investment, the sheer scale of Franklin Park means it requires a different level of investment than is typical for a City park. Neighborhood and active park user needs must be addressed, while respecting the historic and regional significance of this "country park."

- Increase neighborhood partnerships such as with the Franklin Park Coalition. Coordinate activities with the Zoo, White Stadium, and others.
- Renew focus on rehabilitation of basic infrastructure including paths, drainage systems, site furnishings as well as soils and plant health.
- Respond where needed to neighborhood needs by rehabilitating ball fields, improving basketball facilities, and providing or retaining picnic tables in suitable locations.
- Continue to implement the Franklin Park Maintenance Yard Master Plan for reorganization and revitalization of the existing yard.
- Oversee preparation of a water quality assessment and treatment plan for Scarborough Pond, funded with state participation. Phase in its implementation.
- Continue coordination with and among agencies and community groups to avoid user conflicts and to assist with maintenance, programming, and fund-raising.

Section 7.3.4:

PUBLIC SHADE TREES

Introduction

Boston's public shade trees—those lining its streets and avenues, and those found in its public parks, playgrounds, cemeteries, urban wilds, and squares—help make Boston a beautiful city. The city recognizes trees as aesthetic and social resources as well as a critical component of the city's green infrastructure. The public shade tree goals for Boston are to provide stewardship to the existing legacy of mature trees and to plan for future planting and maintenance needs.

The aesthetics of the urban forest can be pictured easily: The stately elms of Mt. Vernon Street, the newly replenished boulevards of Huntington Avenue, the woodlands dotted throughout Franklin Park and the Emerald Necklace, the informal and formal park plantings ranging from Dorchester Park to Post Office Square. These are the trees that make up our urban forest.

The urban forest as a beneficial ecosystem has been documented through research for many years. Trees return oxygen to the air, filter dust, pollution, and the harmful rays of the sun, provide shade, protect people and property from wind and weather, reduce air conditioning and heating costs for adjacent buildings, help filter storm water, and generally contribute to the physical well-being of the city's residents. Street trees also link highly developed spaces with more forested areas. They act as a green corridor that physically and emotionally connects us to nature.

Further, trees consume and store carbon through absorption of carbon dioxide, and produce oxygen. By this carbon sequestration, the return of carbon to the atmosphere is slowed, especially if the tree is long-lived. Thus, the urban forest can help contribute to the slowing of global warming.

The urban forest, as a social resource, is a less tangible quality that must be defined by a series of processes. Trees help residents to define their neighborhood and its special character. The most popular request at the Parks Department is for tree pruning and planting. In many cases neighborhoods have organized to plant missing trees. The planting of trees fosters community spirit and helps some neighborhoods to rebuild their image and sense of identity. They also contribute to improved property values and reductions in the heat island effect, while helping decrease noise pollution.

Current Initiatives

The city of Boston Climate Action Plan has established a target of reaching 35% tree canopy coverage in the city by 2030. To meet this goal, a detailed, actionable, Tree Canopy Plan that incorporates the City of Boston's Comprehensive Public Shade Tree Policy must be developed by government agencies and our non-profit and private sector partners.

Substantive tree canopy expansion can only be achieved through coordinated efforts to develop new policies that will better protect existing trees, both public and private, as well as grown and sustain new trees. The Boston Urban Forest Council, a group of non-profit, city, state, and federal organizations working to improve the urban forest ecosystem, public health, and the quality of life for Boston's residents, can play a key role in advancing tree canopy goals in the city.

The Next Seven Years

The Parks Department is the agency with regulatory and operational responsibilities for city-owned shade trees in the street right-of-way. The ability to develop policy and day-to-day management plans in the same organization, the Parks Department, is a key part of the framework to ensure that the future of Boston is green.

Tree policy issues are sorted into the following three categories:

- Statutory Responsibility and Regulations
- Inventory, Planting, and Maintenance
- Community Involvement and Programming

Based on these categories, the following sections summarize both city policy and recommendations that will be acted upon in the next seven years.

Statutory Responsibility and Regulations

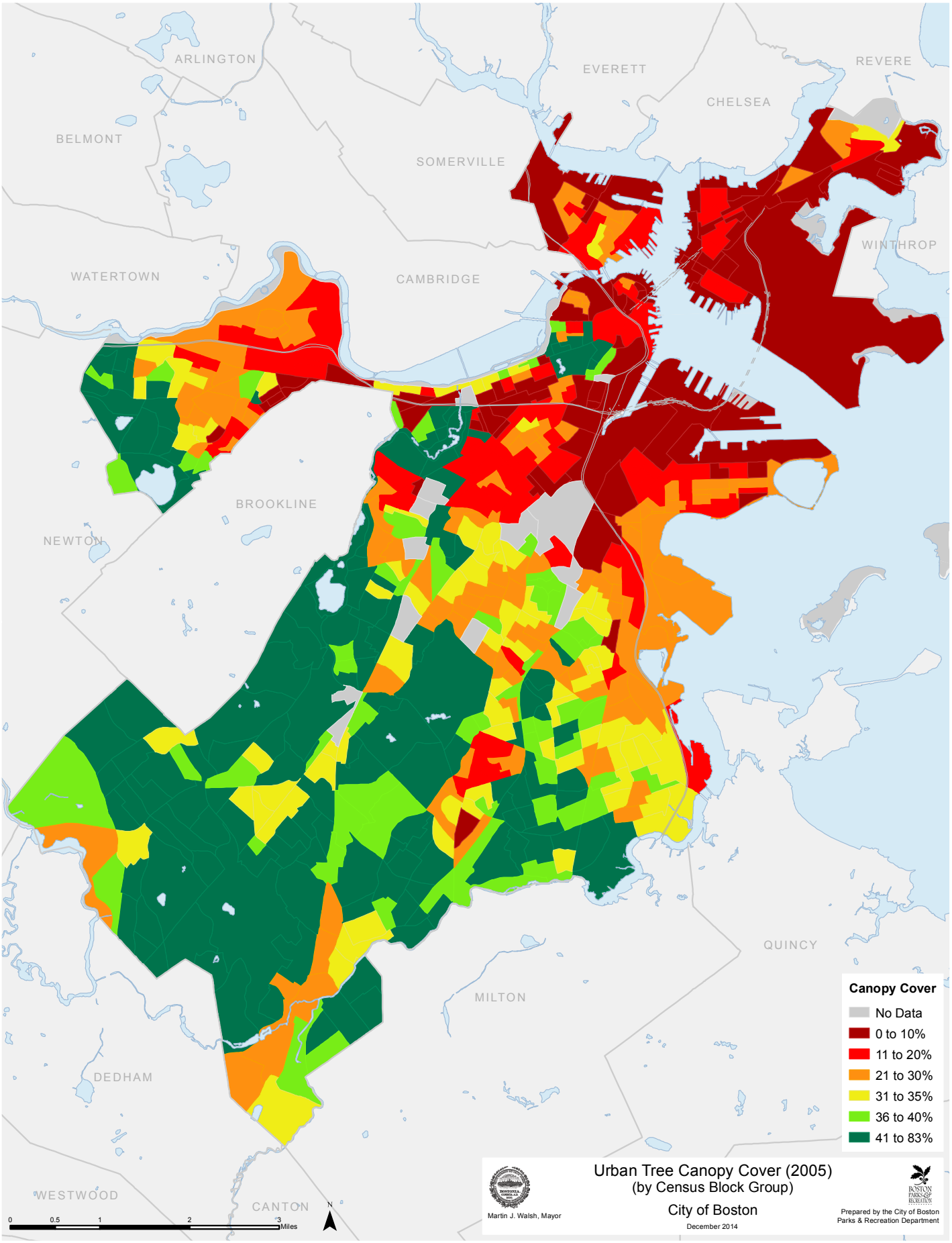
The Parks Commissioner is by statute (Chapter 87, Massachusetts General Laws) the Tree Warden of the city. Together with the Superintendent of Trees, the Commissioner is responsible for establishing a work plan for trees within the statutes and regulations that have already been established.

The City is in the process of revising its public shade tree policy, in order to make all regulations, technical specifications, operations, and programs current.

By virtue of its mandate to maintain public shade trees, it is essential that the Parks Department be involved in all decision-making regarding planting and care of trees on public land by city agencies.

The support of Boston's Public Improvements Commission (PIC) is key for continued communication between all of the city departments that manage land within Boston. This commission approves all development and construction projects that affect any street, road, or thoroughfare, including the public street trees thereon. The participation of the Parks Department on this Commission allows the department to exercise the power of the mandate that it maintain public shade trees.

Currently all public shade trees are protected under Chapter 87 of the Massachusetts General Laws.


ARLINGTON
BELMONT
EVERETT
REVERE
CHELSEA
SOMERVILLE
WINTHROP
WATERTOWN
CAMBRIDGE
BROOKLINE
NEWTON
QUINCY
MILTON
DEDHAM
WESTWOOD
CANTON
Canopy Cover
No Data
0 to 10%
11 to 20%
21 to 30%
31 to 35%
36 to 40%
41 to 83%
0 0.5 1 2 3 Miles
N
Urban Tree Canopy Cover (2005)
(by Census Block Group)
City of Boston
December 2014
Martin J. Walsh, Mayor
Prepared by the City of Boston
Parks & Recreation Department

Recommendations

- Complete review and implement the new Comprehensive Public Shade Tree Policy through existing and new programs and operations to carry out regulations and technical specifications and processes
- Develop strategies to improve the tree canopy cover throughout the city with targeted efforts in those neighborhoods with the lowest existing canopy coverage
- Strengthen communication with other city agencies to help improve efficiency
- Develop stronger planting programs for residents to take more responsibility for the trees that are planted on and/or around their property
- Implement increased penalties for removing or damaging public shade trees
- Continue to research and develop new and innovative policies to protect and build our overall urban tree canopy
- Establish and implement clear planting targets and guidelines for all new streetscape projects city-wide.

Inventory, Planting, and Maintenance

Over the Parks Commission's 130-year history the tree inventory has been replenished through budget expenditures on improvements to streets and parks. With the exception of the Emerald Necklace, little data existed to substantiate a sense among advocates that the inventory contains too few young trees relative to the percentage of mature trees. A visual inspection of streets provided subjective confirmation; however, the exact number, condition, and age of the canopy was unknown.

Inventory

With increasing competition for funding, the ability to identify critical problems quickly and efficiently has become crucial for the Parks Department. Through the use of inventory analysis, the city foresters can identify problems, or potential problems, easily and develop and implement precise and accurate management plans. The most recent street tree inventory was compiled in 2007.

The Emerald Necklace Conservancy drafted the Emerald Necklace Tree Inventory, Conditions Assessment and Management Plan for 7000 trees across 630 acres of the Emerald Necklace parks in 2014. This significant undertaking complements existing inventories of the trees in the Boston Common, Public Garden, and Commonwealth Avenue Mall.

A city-wide canopy assessment using remote sensing data was completed by Boston University in 2014 using imagery from 2005–2007 and 2009.

Planting

A major goal of the Parks Department's Urban Forestry Unit is to spread the benefits of tree planting—heat-island effect-reduction, water quality and air quality improvements, increase in well-being and property values—to all neighborhoods, especially those with a lower percentage of tree canopy cover, thus making it an environmental justice initiative.

On streets where sidewalk widths limit the viability of street trees, the city's front yard tree planting program can help achieve the public benefits of street tree plantings using private property. Expansion of this program can help meet the city's tree canopy goals over the next 16 years.

In fiscal year 2014, the Urban Forestry Unit anticipates planting 1350 street and front lawn trees (fall 2013 and spring 2014 planting seasons).

Maintenance

The Maintenance Division's Urban Forestry Unit is responsible for the pruning and removal of all trees under the jurisdiction of the Parks Department. In addition they supervise specialized treatments for disease such as Dutch Elm Disease and respond to such emergencies as snowstorms and hurricanes. The Department pruned over 2,106 trees, removed 681 trees, responded to 3155 maintenance requests, and answered 927 emergency tree calls in calendar year 2013.

Recommendations

- Explore measures to increase the maintenance and planting capacity of the present workforce.
- Develop and implement planting strategies that provide favorable growing conditions for new trees
- Develop a citywide street tree, parkland, and private property planting and maintenance plan based on opportunities identified in the baseline canopy coverage analysis to help meet the Climate Action Plan 35% tree canopy coverage goal.
- Integrate current work order software to utilize tree inventory data.
- Add GIS mapping capability to current management software.
- Implement management plans that have been developed for the Emerald Necklace.
- Continue to inventory and develop management plans for city parks and public land.
- Develop a street-by-street pruning plan/rotation.
- Develop and implement a comprehensive urban forestry training program for Department staff.
- Seek private and public funding sources to supplement city allocations for planning, planting and maintenance.

Community Involvement and Programming

The Department has outlined a new community forestry project which aims to provide Boston residents with straightforward information with regards to tree planting and care, basic ecology, and environmental ethics. The goal of this project is the development and practice of urban forestry by residents. This can be accomplished through a tangible and consistent public education program that enables communities to set planting and maintenance priorities, undertake local educational programs, and raise funds for local projects. The informational unit of the project includes development of a street tree brochure as well as planting and pruning doorknob hanger brochures. The Department has a website for its Street Trees/Urban Forestry unit, which is constantly updated: http://www.cityofboston.gov/parks/streettrees.

Public/private partnerships are a consistent ingredient in successful community-based environmental management programs. A balance is struck between what each partner offers to the whole, whether it is financial or social capital. The new community forestry effort will allow the Parks Department to direct its fiscal, technical, and physical resources towards supporting functioning groups. Efforts will also be directed towards building neighborhood capacity in neighborhoods that lack effective leadership. In order to use community participation to restore and maintain Boston's urban forest, the Department will sponsor educational programs to include seasonal tree walks, and lectures.

The Department also sponsors special programs in tree planting. Arbor Day has become an annual event in the Department's Urban Forestry Unit This arbor day celebration is done in conjunction with the Massachusetts Arborists Association's "Arbor Day of Service" where local tree care companies donate their time and expertise to do tree work in our parks.

Recommendations

- Continue participation with the Boston Urban Forest Council in Arbor Day planting and education events. Expand Arbor Day and other urban tree programming, including education for all ages.
- Support community efforts to establish partnerships to advocate for and support tree issues in Boston.
- Continue to implement the educational strategy in the Lagan constituent response management system to acquaint citizens and public agency personnel, specifically Parks Department, Public Works, BRA, EDIC, and Boston Transportation Department, with basic Parks Department procedures for care of trees.