Fuller Brook Park

Wellesley, Massachusetts

Preservation Master Plan

November, 2009

Prepared for the

Town of Wellesley
Natural Resouces Commission

Prepared by

Halvorson Design Partnership. Inc.
Landscape Architects and Master Planners
161 Massachusetts Avenue
Boston, Massachusetts

with

Shary Page Berg, Landscape Historian
Cambridge, Massachusetts

and

Tree Specialists, Inc.
Holliston, Massachusetts

Fuller Brook Park

Wellesley, Massachusetts

Preservation Master Plan

"We beg to say that while to many these projects may at first seem wild and impracticable, yet we venture to hope that they deserve the earnest consideration of all thoughtful and public-spirited citizens"

— Olmsted, Olmsted and Eliot, Landscape Architects

Recommendations to Wellesley for its open space system, 1897

Chapter one

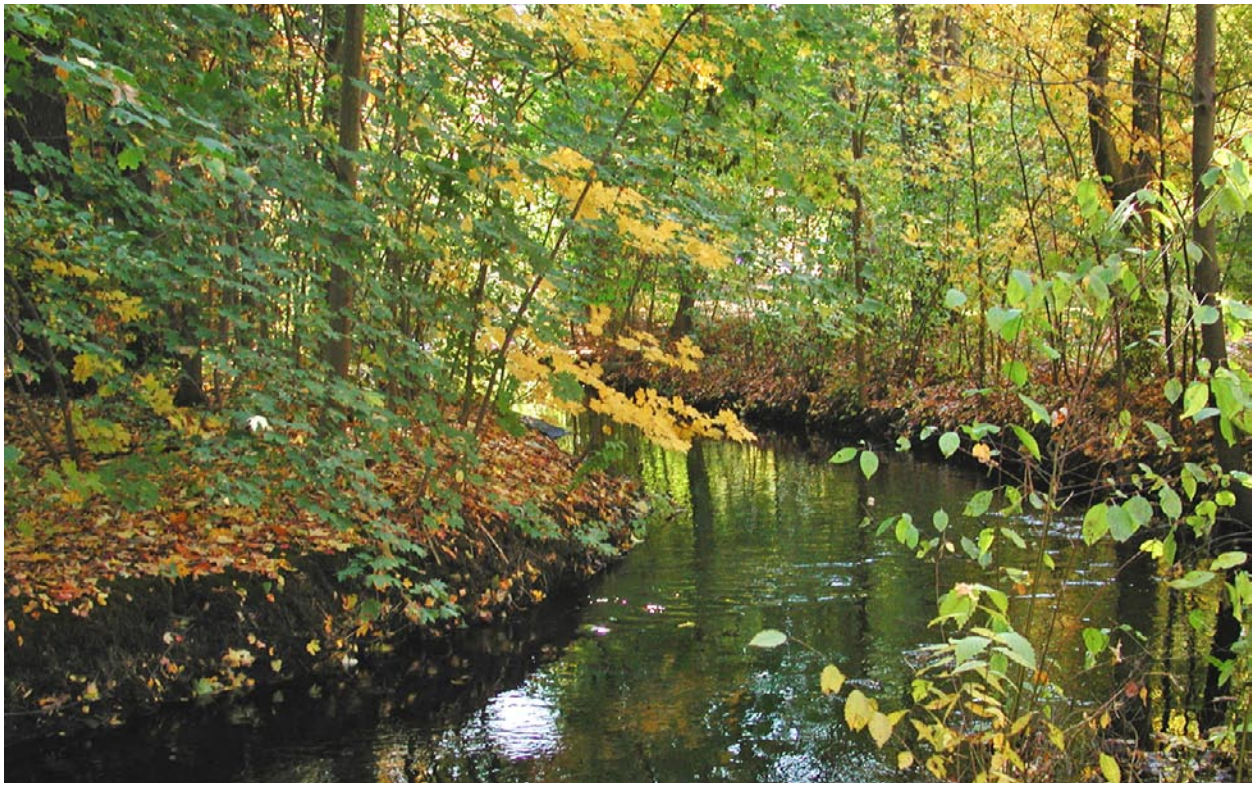
Background

Introduction

Fuller Brook Park, also known as The Brook Path, is Wellesley's most popular and well-used public park. A linear park following portions of Fuller Brook and its tributary, Caroline Brook, it was established by the town in 1899 for the dual purpose of improving the drainage of flood-prone areas and providing parkland near the center of town.

Fuller Brook itself rises in the marshes that straddle the Wellesley-Needham town line. Its watershed collects stormwater runoff for more than half of Wellesley before emptying into the Charles River via Waban Brook.

The physical character of the 23-acre park has evolved over the past century as the needs and priorities of the community have changed. Originally threading through an undeveloped area with extensive wetlands, the watercourse was made narrower, straighter and deeper to improve surface drainage in some sections, and placed underground in others. The original scenery of woodlands and fields has assumed a more managed appearance, with mown lawns and ornamental plantings now interspersed with more natural vegetation. The path that runs through Fuller Brook Park is popular with pedestrians and bicyclists of all ages and is integrated with Wellesley's extensive town-wide network of trails.



The town's main trunk storm sewer is aligned with both Caroline and Fuller Brooks within the park corridor, and periodic sewer maintenance, repair and reconstruction have impacted the park landscape.

The dual mandates of Fuller Brook Park, which are sometimes at odds with each other, have presented a management challenge and involved multiple town agencies for more than a century. In recent years, increased recreational use and new emphasis on protecting natural resources and historical values have raised additional issues. Concerns regarding the maintenance of the property, especially landscape treatment, have intensified as the park's infrastructure has aged and pressures on it have increased.

The Preservation Master Plan

In late 2003, Wellesley's Natural Resources Commission began the process of creating a **Preservation Master Plan** for Fuller Brook Park. The purpose of the project was to document the natural, historic and aesthetic values of the park and to make recommendations for revitalizing it "in the spirit of its original creators."

The Town engaged a consultant team to carry out the Master Plan project. The team was led by the landscape architecture firm, Halvorson Design Partnership, Inc., of Boston, in association with Shary Page Berg, landscape historian, and Tree Specialists, Inc. of Holliston, arborists.

Working closely with the Commission, the planning team researched the history of the park, inventoried and evaluated its existing condition and developed a series of recommendations to address the problems that had accrued over time. The results of these activities are presented in this document.

Wellesley Stormwater Master Plan Update

Concurrent with the Fuller Brook planning process, the Wellesley Department of Public Works (through its consultant, Baystate Environmental Consultants, Inc.), undertook an update of its Municipal Stormwater Master Plan in compliance with State requirements. This project involved a comprehensive assessment of the town's entire surface water drainage system including watercourses, such as rivers and streams, and infrastructure, such as storm sewers and culverts. The condition and adequacy of each element of the network was evaluated.

The timing of the DPW study was fortuitous: while the Natural Resources Commission team focused on uncovering the history of the park and assessing the visual, environmental, recreational and vegetation issues, the engineering questions regarding the stream itself were also being considered in a comprehensive manner. Both the NRC and DPW and their consultants coordinated their work. The results of the Stormwater Master Plan Update that related to the park are summarized and referenced in the recommendations chapter of this report.

Chapter two

Planning process

Methodology

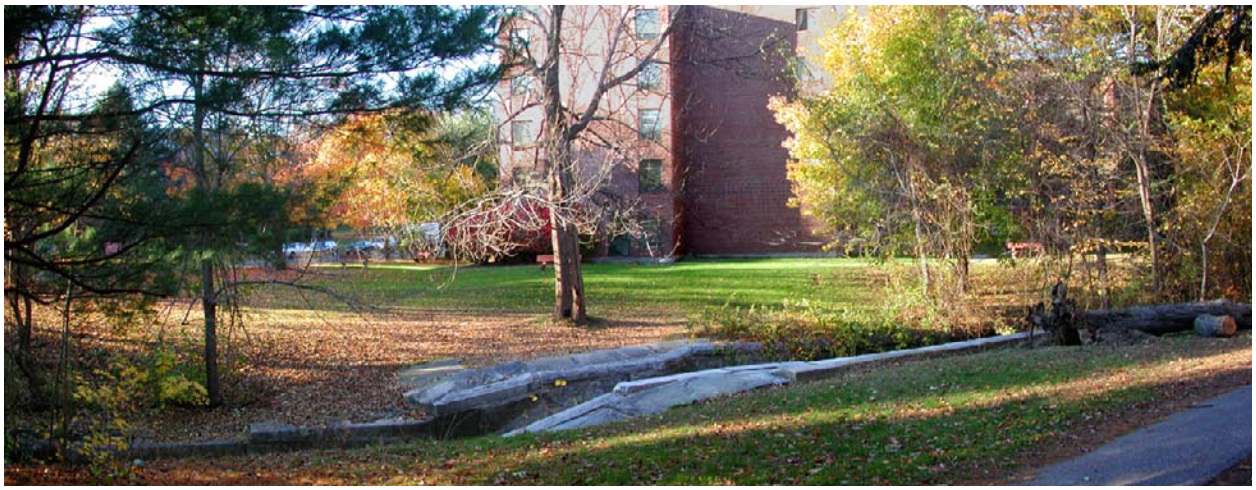
In early fall, 2003, the Natural Resources Commission of Wellesley, Massachusetts engaged a team headed by Halvorson Design Partnership, landscape architects, to research and prepare a preservation master plan for Fuller Brook Park. The stated goal for the plan was the preservation of the park's aesthetics and its cultural and historic integrity, as well as the rehabilitation of its circulation and ecology. The project also involved the preparation of nomination papers for listing the park on the National Register of Historic Places, and plans and specifications for path and vegetation improvements. The planning team also included Shary Page Berg, FASLA, of Cambridge, a leading landscape historian, and Tree Specialists, Inc., of Holliston, arborists and experts in evaluation of vegetation in historic settings.

Research

The planning process began with research into the history of the park landscape. After initial research, it became clear that little specific information about the original park design (such as plans, specifications, plant lists or correspondence) was likely to be discovered—mostly because the early development of the park was carried out as an "in-house" project. For this reason, the scope of the research was broadened to include the historic context of open space development in all of Wellesley, so as to document the role of Fuller Brook Park in the town-wide provision of parks, recreation areas and drainage works.

Site analysis

A detailed analysis of existing conditions in the park was undertaken, including the visual character of the landscape, circulation, structures, soils, stream conditions and vegetation. It should be noted that the assessment of drainage conditions under this project was limited to visual issues, because the Town was simultaneously evaluating the



The "Grove Street Flume," a granite and concrete channel, through which Fuller Brook flows. It original purpose and history did not come to light during the research for this plan.

engineering considerations as part of a state-mandated update to the Town's "stormwater management plan." The site analysis phase involved production of a comprehensive photographic survey, a written narrative inventory of the park, by segments, and graphically annotated aerial photographs.

Agency consultations

Several meetings were held between the planning team, NRC Executive Director and interested municipal staff, including the Town Engineer, Town Horticulturist, Town Historic Commission and maintenance personnel in the Parks Division. These meetings were held both at the outset of the work and as draft recommendations were being generated.

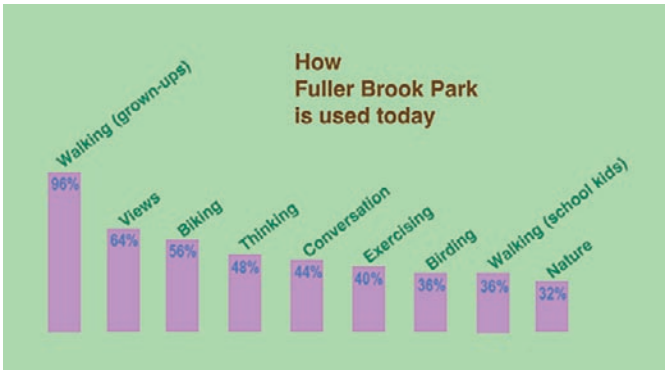
Public participation

An extensive public outreach process conducted by the Natural Resources Commission revealed a large and committed constituency for Fuller Brook Park.

Public hearing I. At the first hearing, there was considerable testimony from those in attendance about the ways that people use the park, what they particularly like about it and issues that they were concerned about. The planning team presented its historic research findings and a visual character analysis of the park, and a statement of guiding principles was discussed and approved.

Public hearing II. Several months later, the Commission convened a second hearing. There, the planning team presented an electronic slide show illustrating specific instances of problems with the path system and vegetation in the park. Most of the discussion surrounded the draft set of recommendations for repairing the paths. The Commission took several of these comments under advisement, and the final path recommendations were modified to reflect the public's input.

Use survey. The Commission also sent a questionnaire about park use and concerns to residents living within short walking distance of the park. It revealed that the park continues to serve primarily as passive, green open space, with a large variety of users and uses. The responses were presented at the second public hearing, and among the attendees (many of whom said that they had not submitted a survey form), there was consensus that the findings represent current park use.



Guiding principles

Based on the historic research, site analysis and input from municipal agencies, a draft set guiding principles for the preservation and management of Fuller Brook Park was developed. These were presented and discussed at a public hearing at Town Hall, and subsequently adopted in modified form by the Natural Resources Commission. These principles, as adopted, are set forth at the beginning of the recommendations chapter (Chapter 5) of this report.

Historic preservation guidelines

While Fuller Brook Park cannot be said to represent the documented work of a notable landscape architect, it does have historic significance within the history of Wellesley's open space planning.

Action recommendations

At the direction of the Commission, the planning team focused on three main areas of recommended action, path improvements, vegetation management and stream environment improvement. In addition, recommendations were

developed that deal with improving park identity, and enhancing the preservation understanding and protection of the park. Reference is made to the storm drainage actions that the Town's Stormwater Management Plan Update identified for the Fuller and Caroline Brook sections of the park. These are all presented in Chapter 5.

Policy recommendations

Several ideas were developed through the planning process, whose implementation would involve policy decisions and in-house agency action. These include some further directions for historic preservation planning and ways to achieve the best maintenance of the park.

Implementation

Recommendations regarding priorities and phasing of the master plan were developed, including implementation of action proposals through the Town's capital budgeting process and the Community Preservation Act, and the creation of a "Friends of Fuller Brook Park" group.

Chapter three
History

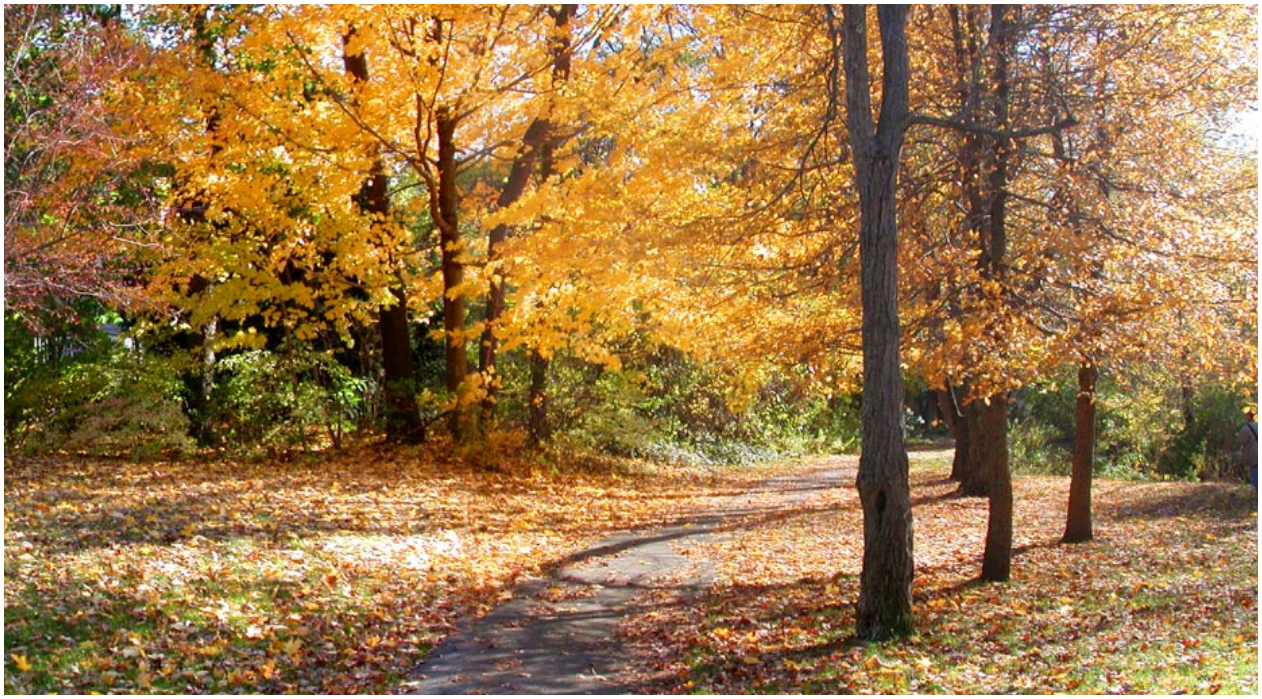
Introduction

As a **preservation** master planning effort, this project began with a comprehensive review of available documentation and information that might reveal the original planning and design intent of Fuller Brook Park and its subsequent evolution.

The research and analysis of the park's history was carried out by Shary Page Berg, landscape historian on the Halvorson Design team. Her findings are set forth fully and at length in a separate report entitled ***Cultural Landscape Report: Fuller Brook Park, Wellesley, Massachusett***s, issued in Fall, 2004. The contents of this chapter are adapted from Ms. Berg's report.

Highlights of historic findings

Fuller Brook Park is historically significant at the local level as an example of landscape architecture and community planning and is also noteworthy for the involvement of three prominent designers. The following themes have shaped the park's creation and management over the past century and should inform future stewardship.



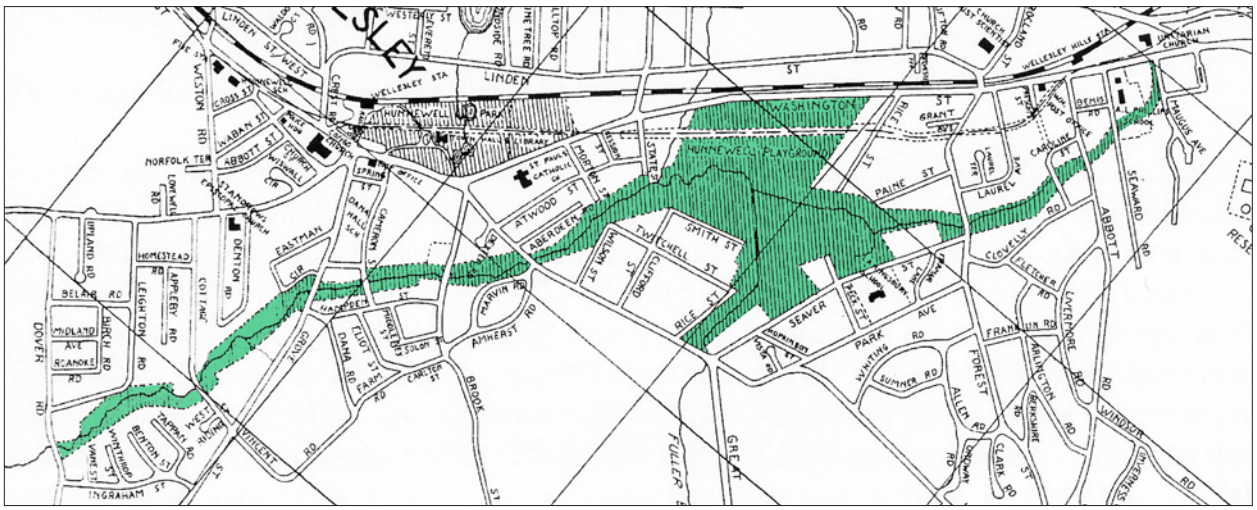
One of the original goals of Fuller Brook Park was the creation of a pleasant retreat and circulation corridor, away from the bustle of Washington Street. As this scene illustrates, this quality can still be found in places along the route. (The view shown here looks northeastward between Wellesley Avenue and State

Drainage and Parkland

Fuller Brook Park was established in 1899 for the dual purpose of improving drainage and providing parkland. These two mandates, which sometimes conflict, establish the fundamental purpose of the park. Drainage concerns have generally shaped major policy decisions and physical changes.

Linear Corridor

Fuller Brook Park was built as a unified linear park extending from Dover Road to Maugus Avenue. It has become segmented by construction of the high school in 1936 and by changes at Hunnewell Field, where both the brook and the path largely disappear. Today Fuller Brook Park is perceived as two distinct segments broken by Hunnewell Field and the high school rather than as a single park.



1935 Map of Wellesley showing Fuller Brook Park. Note the natural course of the brook through Hunnewell Field that still existed at that time. (Wellesley Historical Society)

Multiple Designers

The park does not reflect a single design, but is a collective work with many influences. Three prominent designers advised on Fuller Brook Park during its early years but their work was conceptual and did not include detailed design. John Charles Olmsted of Olmsted, Olmsted and Eliot was consulted briefly in 1897. Warren H. Manning, who trained at the Olmsted office before establishing his own firm, was involved in land acquisition and initial construction of the park. In 1915 Ernest W. Bowditch, an engineer and landscape designer who was also involved in the design of Wellesley's sewer system, made recommendations for extending the park and for a boulevard along Fuller Brook.

Evolving Landscape Character

Fuller Brook has not had a static character but has evolved over time as town needs and priorities have changed. The general trend has been away from a natural landscape of winding watercourse and woodland vegetation to a more engineered stream bed and a park-like landscape that includes ornamental trees and shrubs as well as native plants.

Natural, Cultural and Recreational Resource

Fuller Brook Park originated as a natural landscape and retains values associated with its natural resources, including water resources, flood storage, vegetation and wildlife. It is also valued as a cultural resource and as an example of park and regional planning. Finally, Fuller Brook Park is a much-loved recreational resource that includes a multi-use path that is part of the town's trail system.

Historic context: Evolution of Wellesley's parks and public landscapes (1880s - present)

In order to evaluate the significance of a landscape, it must be placed within a larger intellectual framework known as a historic context, which discusses it in relation to other properties associated with a given theme. The primary historic context for Fuller Brook Park is the public open spaces of Wellesley, which are described in this chapter. Fuller Brook Park can also be considered within the larger framework of park development in Massachusetts, particularly Boston's Emerald Necklace and the Metropolitan Park System, both of which are discussed briefly.

Shaping a New Community. On April 6, 1881 the town of Wellesley, previously part of Needham, was formally incorporated as an independent community with a population of 2,500. The new town, known for its natural beauty and gracious estates, was named for Isabella Pratt Welles, wife of H. H. Hunnewell, one of the town's leading citizens. Through the precedent set at his own estate and in his gifts to the town, Hunnewell was instrumental in establishing a town-wide appreciation of well-designed public spaces, mature trees and ornamental horticulture, three elements that remain important characteristics of the community today.

Park Commission's Early Years. Wellesley's first park commissioner, Josiah G. Abbott, was elected in 1889 with additional commissioners joining him in subsequent years until the full complement of three park commissioners was achieved. Responsibilities of the Park Commission included formulating park policies and setting priorities for maintenance and improvements of the town hall park (which was initially maintained by H.H. Hunnewell) and the grounds of the railroad stations. Parks were listed as a separate appropriation category for the first time in 1896, with a budget of $500.

In 1897 the Wellesley Park Commission hired the firm of Olmsted, Olmsted and Eliot to assess possibilities for the community's parks. John Charles Olmsted, the senior partner in the firm at that time, visited Wellesley in January and prepared a written report dated February 9, 1897. The primary focus of the report was on Fuller Brook, but it also included general recommendations, which are described here.

The report began by praising Wellesley for its natural beauties and its "comparative freedom from objectionable features," describing the town as "a pleasing landscape composed of gently rolling fields, groves and woods, breezy hills, pretty brooks, beautiful ponds with woody borders and one of the most charming rivers in this part of the country." In language that is similar to other Olmsted reports of the time, the report enumerated the physical assets of the community and praised the citizens of Wellesley for their good judgement. It then described problems associated with some of Boston's more densely settled neighborhoods and urged Wellesley to acquire park land to protect the rural character of the community and plan for long-term recreational and circulation needs.

The stretch of Fuller Brook Park near the High School captures some of the look of the wetland environment that existed when the Olmsted firm recommended setting aside Fuller and Caroline Brooks as public open space.

The report urged the community to set aside between one-eighth to one-quarter of the whole area of the town for public open space that should be conceived as unified system of "public pleasure grounds and drives" pointing out that if action were taken promptly while land was still inexpensive, the cost would be far less than it would in the future. Important features cited in the report included: the Charles River, Lake Waban and the highest hills of the town. The report also recommended that there should be small neighborhood parks and playgrounds, that the town water supply be protected, that provisions be made for sewage disposal, and that low-lying land be acquired for flood control. An integral feature of the proposal was a series of parkways, based on those in Boston's Emerald Necklace, which would connect the various parks and open spaces and provide an alternative to the town's main thoroughfares that were heavily used for commercial purposes.

The year 1899 began a period of growth and change for the Wellesley Park Commission. It took over maintenance of the town hall grounds, acquired a small donation of land on Laurel Avenue that became known as Shaw Common, and assumed responsibility for shade trees, which had previously been under the jurisdiction of the Tree Warden. By far the biggest and most visionary undertaking of the year, however, was the creation of Fuller Brook Park, a linear park established to improve drainage and create parkland near the center of town. The evolution of Fuller Brook Park is described in the section below, entitled Site History.

Wellesley's park system continued to grow rapidly during the first decade of the twentieth century. In 1901 H.H. Hunnewell donated an 18-acre parcel on the south side of Washington Street as a "playground for the young and old of the town" with the stipulation that the town make improvements. Within a few years football and baseball fields were built and drainage work was underway so that additional parts of the field could be used. Elm Park at the corner of Washington Street and Worcester Turnpike was added in 1908. Like many of Wellesley's parks it featured a carefully selected palette of trees, shrubs and flower beds, reflecting the tradition of ornamental horticulture established by H.H. Hunnewell. The clock tower was added in 1928.

By1913 the Park Commission divided its work into two categories: first, the care of 50 acres of parkland including: Town Hall Park, Hunnewell Playground, Wellesley station grounds, Shaw Common, Elm Park, Ware Park, Sawyer Park, Peabody Park, Indian Springs, Newton Lower Falls (Metropolitan Park Commission land maintained by Wellesley) and the following triangles: Dover and Washington Streets, Cottage and Grove Streets, St. Mary's Lower Falls, and Walnut Street and the aqueduct. These were established parks that required primarily routine maintenance of turf, shrubs and trees.

"The charm of the Town of Wellesley consists in its refined atmosphere, its pleasant homes, its delightful drives and its landscaped scenery, and no enlarged description of its enchanting outlooks, its elegant residences, its public buildings, its hills and vales, its calm waters and rugged ledges can be otherwise than futile and unsatisfactory."

— Joseph Fiske,
History of Norfolk County, 1884

The second category of work was the park and drainage areas along Fuller Brook, which comprised 75 acres of land, much of it originally wetland, and about 11,500 lineal feet of brook. The commission reported that the brook was gradually being put in order, which involved deepening and straightening the channel and sloping its banks so that they would not erode. During the 1910s there were also proposals to make substantial additions to Fuller Brook Park and to create a parkway along the brook, most of which were never implemented. One change that did occur was construction of the town's main trunk sewer along

Fuller Brook between about 1915 and 1921, causing considerable disruption to the landscape.

After World War I Wellesley, like many communities, faced new challenges. The first was creating a suitable memorial to the town's war veterans. It was characteristic of Wellesley that the community chose to establish a memorial grove at Hunnewell Field, with one white pine planted for each of the 329 Wellesley residents who had served during the war. The grove was designed by landscape architect Arthur Alexander of Wellesley, one of the veterans. A precedent for commemorative trees had already been set during the Civil War when Wellesley resident Franklin Stevens planted "Trees of Peace" in front of his house on Worcester Street.

The 1920s and 30s were a time of rapid growth for Wellesley as a community and for its park system. By 1923 there were 135 acres of parkland, and the staff and budget continued to grow. The depression years of the 1930s brought a new interest in active recreational programs, many of which occurred at Hunnewell Field. Construction of a new high school southeast of Hunnewell Field in 1936 occurred on land that had previously been parkland. The high school brought more users to the area and created pressure for additional playing fields at Hunnewell Field. It also prompted improvements to the section of Fuller Brook east of Forest Street, which high school students used to get between home and school.

Post-War Evolution of Parks and Recreation. Two post-World War II changes had a direct impact on Wellesley's park system. One was the town's increased emphasis on recreational programs and facilities, part of a national trend, which diverted funds and manpower away from existing parklands. The problem was exacerbated by the fact that the park system had been neglected during the war years. The second change was the rapid post-war growth of the community. Between 1954 and 1964 alone, the population increased by more than 25%, from 21,000 to 27,000. The dramatic increase in population, with a large number of young families, resulted in even greater demand for recreational services and facilities.

Hunnewell Field was one of the areas that saw the greatest changes in the post-war years. Construction of the new high school in the 1930s had already brought more pressure for recreational facilities, which accelerated after the war with a new skating pond/rink in 1950. This was followed in 1961 by filling two acres in the southern section of the park to create additional land for recreation. Additional changes were made in the early 1970s that improved the athletic fields but further altered Fuller Brook.

Fuller Brook Park today plays an important role in the Town's trail network and its stormwater drainage system.

The post-war reorganization of town departments reflected the changing emphasis. In 1946, the Park Commission became the Park and Recreation Commission whose responsibilities fell into two distinct categories: development and management of parklands; and recreational programs and facilities. In 1947, the office of Town Engineer was established, reflecting the importance that infrastructure had in the rapidly growing community. In 1955, a Department of Public Works (DPW) was established that integrated all town maintenance and infrastructure functions, including engineering, into a separate department. The former Parks Department became a division of the DPW. Recreation, which was concerned primarily with programs, was a separate department.

The DPW is primarily concerned with maintaining the infrastructure of the town and is generally considered to have an engineering perspective. Initially responsibility for parks and trees fell under the jurisdiction of the highway superintendent. In 1976, a separate Park and Tree Division was created within the DPW with a landscape architect as superintendent. It had with responsibility for parks, recreation areas, trees and other open areas. Under this new structure, the town tried to articulate its approach to park stewardship more clearly.

"It has been said that 'the growth of any community along the lines of ornamental horticulture indicates progress in the area of culture and refinemment.' It is evident that Wellesley will not be found wanting in these graces.."

— Town of Wellesley,
Annual Report, 1907

By this time administration of the town's parkland had become increasingly complex, with multiple town departments and boards involved, often with conflicting goals. The Wellesley Conservation Council, established in 1958, was set up as an independent land trust to acquire conservation land. It function as an advisory group to the Town on land preservation issues. The Wellesley Conservation Commission was established in 1961, but had little authority until the passage of the Massachusetts Wetlands Protection Act in the 1970s. Civic groups also maintained a strong interest in Wellesley's parks and natural areas, especially the town's six garden clubs, particularly with regard to beautification efforts.

Wellesley's Natural Resources Commission (NRC) was established as a town department in 1980 to create a more comprehensive approach to management of Wellesley's parkland, particularly natural areas such as Fuller Brook. NRC's three sub-committees: long range planning, landscape advisory and wetlands protection, reflected its multiple missions. Under the new management structure, the Park and Tree Division of the DPW retained responsibility for park operations and maintenance, while the NRC had an advisory role on natural resources and park policy and had jurisdiction over all park and conservation land.

In 1981, Wellesley celebrated its centennial with the addition of Centennial Park, a new 42-acre park on Oakland Street. By 1984 the Park and Tree Division of the DPW was responsible for 856 acres of parks, playgrounds, conservation areas, traffic islands, school grounds and approximately 4,700 street trees. At the same time that its responsibilities increased, funding for maintenance was reduced. The Park and Tree Division refined its system of seven maintenance zones to make best use of limited resources. The dialogue between the DPW and the NRC regarding park management continues today, with input from other town departments, civic organizations and individual citizens.

Site History

This section traces the history of Fuller Brook Park from its establishment in 1899 to the present. It documents the physical evolution of the landscape, describes use of the park over time and delineates the physical characteristics and features that contribute to its historical significance. Information is drawn primarily from the town's annual reports and from maps and newspaper articles. No design plans have been found for Fuller Brook Park other than a few engineering studies and there are few historic photographs.

Fuller Brook Park was a visionary creation for its time, undoubtedly influenced by Boston's Emerald Necklace and by the Metropolitan Park System, both of which are described in the preceding chapter. The story of Fuller Brook Park reflects the contradictions and complexities that the multi-purpose park has faced over the years. A primary theme is the tension between its dual mandate of improving drainage and providing parkland. A secondary theme is the many additional pressures that the park has faced over the years, threatening its unity and character.

Early years of Fuller Brook Park (1899 - 1915)

Planning for Fuller Brook. The town's annual reports indicate that in 1897 the Wellesley Park Commission hired the firm of Olmsted, Olmsted and Eliot for a preliminary visit at a cost of $100. The archives at the Olmsted National Historic Site have no plans or photographs for this project. However, the firm's written records for this period, which are housed at the Library of Congress, indicate that John Charles Olmsted visited Wellesley in January/February 1897 at the invitation of Park Commissioner Joseph Peabody.[1] Olmsted's report of February 9, 1897 offered general recommendations for Wellesley's parks, as well as specific advice regarding Fuller Brook. Excerpts from the report pertaining to Fuller Brook are included here, the text of the full report can be found in Appendix B. Some paragraph breaks have been added to make the text easier to read.

The Fuller Brook section of the report began with an expression of concern about the potential health hazard caused by low-lying swampy areas and the need for town to assume responsibility for sanitary improvements.

"If these swamps are left in private hands, it is probable that but little will be done toward remedying their unwholesomeness. On the contrary, it is inevitable, judging from experience elsewhere, that the unhealthy conditions will grow worse and worse. The natural surface drainage will be crowded upon so those floods will become decidedly troublesome. The swamps will become polluted by the overflow and seepage from cesspools and vaults; silt largely mixed with manure from road wash and from gardens and lawns will accumulate on the low lands, both choking natural drainage channels and producing beds of putrid vegetable matter in moist places, breeding virulent diseases as well as unhealthy conditions."

"No one land-owner can by any degree of intelligent improvement of his own land rid himself of danger from evil conditions existing in the vicinity. The only remedy lies in the carrying out of a well-considered general scheme of improvement by the public authorities, partly directly and partly through the regulation of the private use of land."

"Whoever comes to study such a scheme of land drainage will find the problem enormously simplified if the town lays out a road on each side of the principal brooks and swamps and takes the land between for public pleasure grounds. Thus will proper routes be provided for future sewers; the natural water courses can be cheaply enlarged from time to time as the need becomes evident: considerable areas of low, wet lands will be saved from contamination and be preserved in their natural beauty or drained and smoothed for playgrounds...."

"Experience proves that many low and unwholesome tracts of land gradually become covered with the dwellings of laborers and others too poor to pay for better land, or influenced by a misguided desire for economy, and by stables and manufacturing

establishments of a kind injurious to the values of neighboring residences. In other words, the wet lands of a thickly settled town usually become its slums. . . The danger of such slums in Wellesley may seem to be very remote. Nevertheless, the conditions exist there which have produced such results elsewhere, and it is surely only a matter of time when Wellesley will be afflicted with its slums like most other towns, if it does not take effectual means to prevent them . . ."

The report then commented on the plan that had been proposed by the Park Commissioners, urging that the park and parkway begin at the intersection of Washington Street and Worcester Street, rather than at Abbott Street as initially proposed, with consideration give to eventually extending east to the Charles River. The report recommended a corridor at least 120' wide for this section. From Forest Street the route would continue down Caroline Brook (then known as Kingsbury Brook) with space widening out between the two roadways where the floodplain was wider. The relatively low area between Forest Street and present day State Street, much of which is now Hunnewell Field and the high school grounds, was proposed as a large playground and ballfield. The park would then continue down Fuller Brook to Waban Brook.

The plan suggested a minimum width of 150' for a park with a parkway on each side, with a 200' wide corridor if a trolley line were also included, widening in places of natural beauty to 300'. The report also suggested a dam near the intersection of Fuller Brook and Waban Brook to alleviate problems in the marshy area upstream from the Charles River and recommended extending the park up Waban Brook to Lake Waban, ending in a concourse on the shore of the lake.

The Olmsted report concluded,

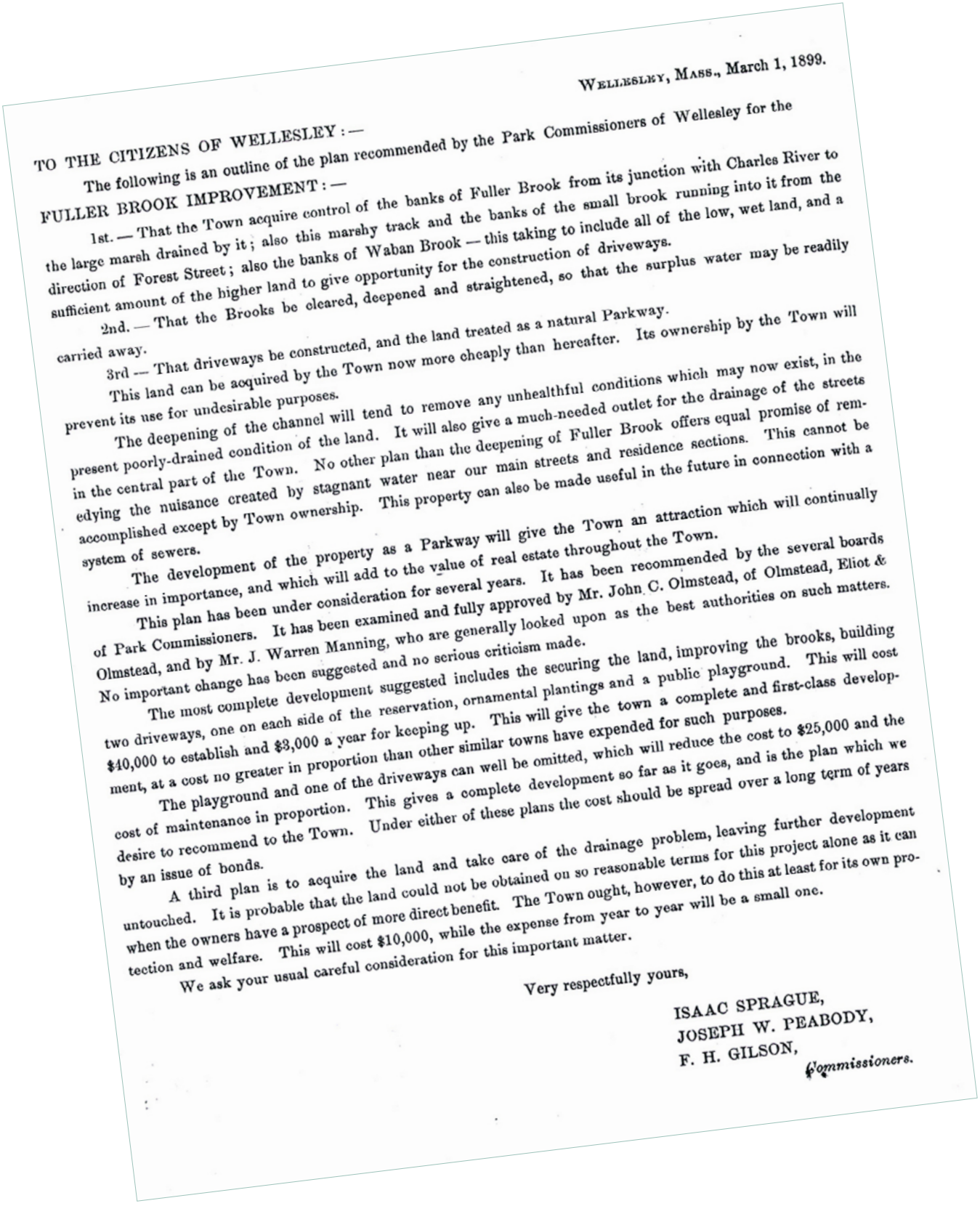
"[W]e beg to say that while to many of these projects may at first seem wild and impracticable, yet we venture to hope they deserve the earnest consideration of all thoughtful and public-spirited citizens."

In a March 1899 letter to the citizens of Wellesley the Park Commissioners laid out proposed principles and rationale for the establishment of Fuller Brook Park based on the suggestions of the Olmsted firm. A copy of the full text of the letter is reproduced on the next page.

The Park Commission stated that progress had already been made on a system of public parks and reservations for the town and pointed out the importance of the park system for public welfare. One of the accomplishments noted by the Commission was that the banks of the Charles River at the eastern end of town had already been acquired by the MPC. The commissioners took the bold step of urging that the town acquire the low, wet land along the entire length of Fuller Brook from its junction with the Charles River to the large marshy area near Great Plain Avenue. They also recommended acquisition of the eastern tributary of Fuller Brook known today as Caroline Brook and the banks of the Waban Brook

Olmsted, Olmsted and Eliot, in 1897, offered five justifications for creating a park along the Fuller Brook valley:

- it could be carried out in phases and that each phase could stand on its own;
- the land was held in large tracts where additional roads would be needed anyway;
- managing the wetland would be more costly than a park in the long-run;
- the park would provide a suitable route for a sewer through the most populous part of town; and
- the park and parkway right-of-way could also provide a route for a trolley at a moderate expense.



WELLESLEY, MASS., March 1, 1899.

TO THE CITIZENS OF WELLESLEY: —

The following is an outline of the plan recommended by the Park Commissioners of Wellesley for the FULLER BROOK IMPROVEMENT: —

1st. — That the Town acquire control of the banks of Fuller Brook from its junction with Charles River to the large marsh drained by it; also this marshy track and the banks of the small brook running into it from the direction of Forest Street; also the banks of Waban Brook — this taking to include all of the low, wet land, and a sufficient amount of the higher land to give opportunity for the construction of driveways.

2nd. — That the Brooks be cleared, deepened and straightened, so that the surplus water may be readily carried away.

3rd — That driveways be constructed, and the land treated as a natural Parkway.

This land can be acquired by the Town now more cheaply than hereafter. Its ownership by the Town will prevent its use for undesirable purposes.

The deepening of the channel will tend to remove any unhealthful conditions which may now exist, in the present poorly-drained condition of the land. It will also give a much-needed outlet for the drainage of the streets in the central part of the Town. No other plan than the deepening of Fuller Brook offers equal promise of remedying the nuisance created by stagnant water near our main streets and residence sections. This cannot be accomplished except by Town ownership. This property can also be made useful in the future in connection with a system of sewers.

The development of the property as a Parkway will give the Town an attraction which will continually increase in importance, and which will add to the value of real estate throughout the Town.

This plan has been under consideration for several years. It has been recommended by the several boards of Park Commissioners. It has been examined and fully approved by Mr. John C. Olmstead, of Olmstead, Eliot & Olmstead, and by Mr. J. Warren Manning, who are generally looked upon as the best authorities on such matters. No important change has been suggested and no serious criticism made.

The most complete development suggested includes the securing the land, improving the brooks, building two driveways, one on each side of the reservation, ornamental plantings and a public playground. This will cost $40,000 to establish and $3,000 a year for keeping up. This will give the town a complete and first-class development, at a cost no greater in proportion than other similar towns have expended for such purposes.

The playground and one of the driveways can well be omitted, which will reduce the cost to $25,000 and the cost of maintenance in proportion. This gives a complete development so far as it goes, and is the plan which we desire to recommend to the Town. Under either of these plans the cost should be spread over a long term of years by an issue of bonds.

A third plan is to acquire the land and take care of the drainage problem, leaving further development untouched. It is probable that the land could not be obtained on so reasonable terms for this project alone as it can when the owners have a prospect of more direct benefit. The Town ought, however, to do this at least for its own protection and welfare. This will cost $10,000, while the expense from year to year will be a small one.

We ask your usual careful consideration for this important matter.

Very respectfully yours,

ISAAC SPRAGUE,
JOSEPH W. PEABODY,
F. H. GILSON,
Commissioners.

Park Commissioners" 1899 letter laying out the basic concepts for Fuller Brook Park (Wellesley Historical Society)

between Washington Street and the Charles River. In all cases the acquisition should include the low, wet land along the waterway and some adjacent higher land for park use.

The commissioners also recommended that Fuller Brook be cleaned, deepened and straightened, so that surplus water would be carried away; that "driveways" be constructed, and the land treated as a natural parkway. The term "driveway" as used by landscape architects in the late nineteenth century referred to carriage roads designed for pleasure traffic through a park or between two parks. The word "parkway," which was frequently applied to Fuller Brook, was sometimes used to mean the same thing, but could also mean a linear park with paths along its edges.

The Wellesley Park Commission justified the proposed land acquisition at Fuller Brook and its tributaries on the basis that the land was still relatively inexpensive and that town ownership would prevent future undesirable uses. Deepening of the Fuller Brook channel would eliminate unhealthful conditions due to the poorly-drained state of the land; would provide an outlet for street drainage in the central part of the town; and might also be useful in future construction of a sewer system. Development of the property as a parkway would give the town, at small expense, an attraction that would increase in importance and add to the value of real estate throughout the town. As the improvement would be permanent and would increase in value, the Park Commission recommended that the cost be spread over a term of years by a serial issue of bonds.

In their 1899 Annual Report the Park Commission reported:

"The original plan has been fully indorsed (sic) by several of the leading experts of the country and no important change has been suggested. We have had surveys made by Mr. Frank L. Fuller, with his well-known thoroughness, and plans drawn by Mr. Warren H. Manning, who has wide experience in improvements of this nature."

Initial Improvements

As soon as the land was acquired, the Park Commission began basic improvements to broaden and deepen the channel. No design plans have been found for this work and it is likely that none existed, as the initial work was primarily clearing away debris and rough grading the channel. The Park Commission reported in 1903:

"… while the Commission have kept in mind the matter of drainage as being fundamental, yet in acquiring land, due regard has been exercised for future treatment as a parkway. With slight exceptions, sufficient land has been taken to provide for a roadway, paths, and planting spaces, so that the land taken will answer for all time, and the town will reap a portion of the benefit accruing from the turning of swampy areas into good, hard land."

This 1905 description is one of the few early records of Fuller Brook Park's appearance,

"A part of the parkway was given a summer ploughing; the alders and useless under growth were cut and cleared away. Further cultivation will be necessary before a permanent lawn can be made here. A fall ploughing was also made near the bridge on Grove Street with a view to planting the coming spring."

By 1908 the Park Commission reported that lowering the stream bed of Fuller Brook between Cottage Street and Abbott Road had been completed. It was now about 2 1/2' to 3' lower than it had been, transforming former bog land into useful hay fields, with a long-range plan of making it fit for recreational use. The Park Commission cautioned however that yearly cleaning of the brook channel would be required and that sloping of the banks back more or constructing stone walls at the sharper angles would also be useful in some places to prevent undermining of the banks. Willows

and water birch were also used to stabilize the slopes. With the basics of drainage out of the way, the Park Commission turned its attention to creating a more park-like landscape, suggesting in 1907,

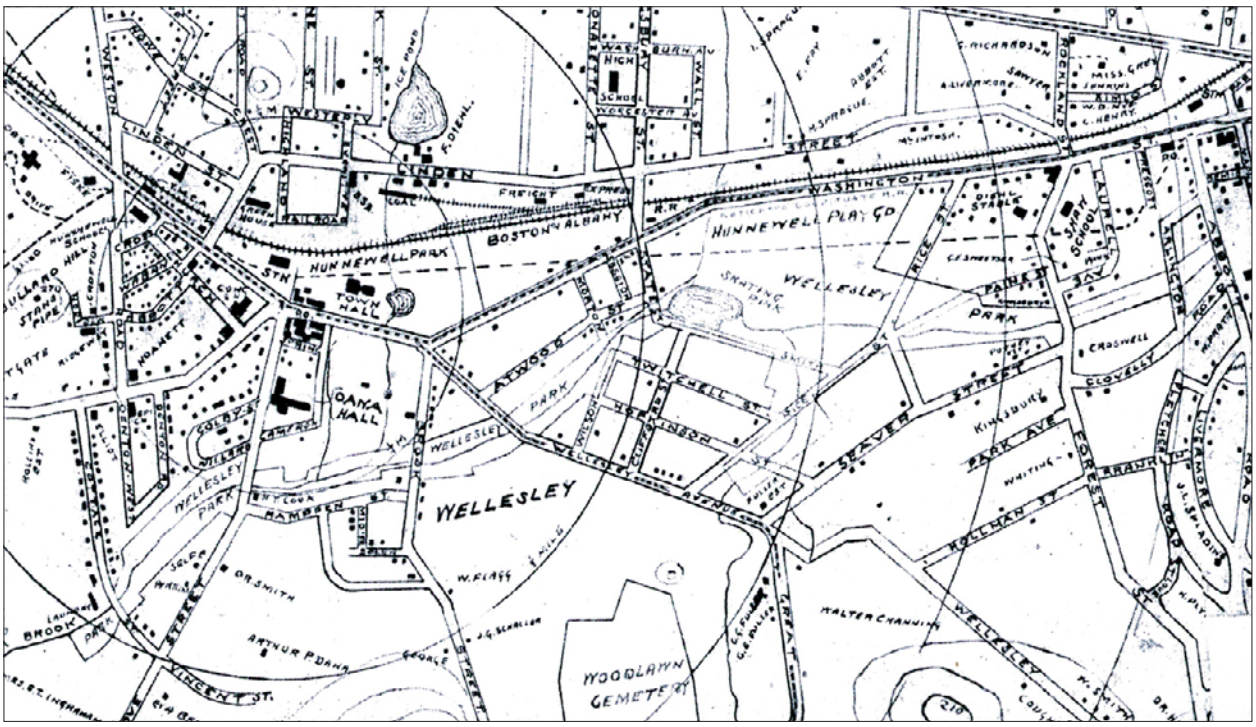
"It is proposed to plant shade trees and build a pathway as far as possible along the parkway next summer. There the public may enjoy a brookside byway, free from the dangers of electrics and autos, and see the development and progress of what will ultimately be a place of healthful enjoyment, and one of Wellesley's beauty spots."

In 1908 the Commission proposed "natural planting and grouping of shade and ornamental trees in such a manner as to eventually produce the most pleasing effect" and planted ten varieties and over 400 trees. The following year they reported that specimen evergreens had been planted at the Grove Street entrance, that several fields were being cultivated and that hay was being grown in some areas.

"The planting already begun along the proposed boulevard will be continued wherever planting is necessary. A careful study is being made of the existing conditions and environment in order to gain the highest results in harmony and pleasing effect that such planting will ultimately produce. It is proposed in the first place to develop the sections of the parkway which are crossed by streets and also to make the bridges and their parapets more attractive as these places come more frequently under the eye of the public. A beginning has been made to this end on Grove Street, Brook Street and also Wellesley Avenue."

During this period, routine maintenance was carried out on a regular basis, which typically involved removal of debris and cleaning and repair of culverts and drains. Spraying was also done for gypsy and brown tailed moths. The rough grading that had taken place in earlier years was refined in problem areas, with the brook sloped back to prevent undermining of the slopes. Hay was still being grown along some parts of Fuller Brook Park while other areas were slowly becoming more park-like.

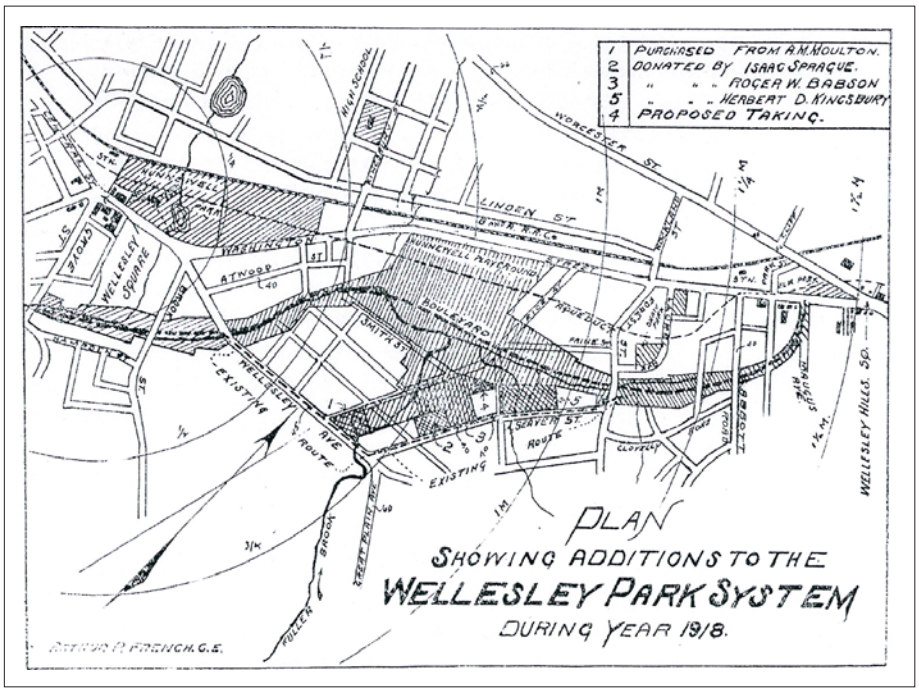
By 1913 the Park Commission had two separate divisions, the first was responsible for the town's small parks and the



Detail of 1910 town map showing extent of Fuller Brook Park in 1910. Fuller Brook still flows through Hunnewell Field as a relatively natural stream.(Wellesley Historical Society)

other for the parkland along Fuller Brook. By this time Fuller Brook comprised 75 acres of land, much of it originally swamp, and about 11,500 linear feet of brook, with small areas still proposed for acquisition. The Park Commission summarized the situation:

"The brook is gradually being put in order, the end deepened, channel straightened and the banks sloped to the proper angle so that they will not wash badly. The lowering of the bed is gradually draining the surrounding property so that it can be developed as meadow and mowed for grass. Portions of the brook some 4,000 feet including the prospective addition will need to be straightened and lowered wherever feasible to continue the draining of ponds, holes and swamps adjacent. This work will do away with a large portion of the mosquito nuisance in town. The entire area of the brookway requires mowing or to have the shrubs trimmed and sprayed where necessary for scale and moths. The brook channel must also be inspected spring and fall, clearing out accumulated rubbish and repairing the banks."



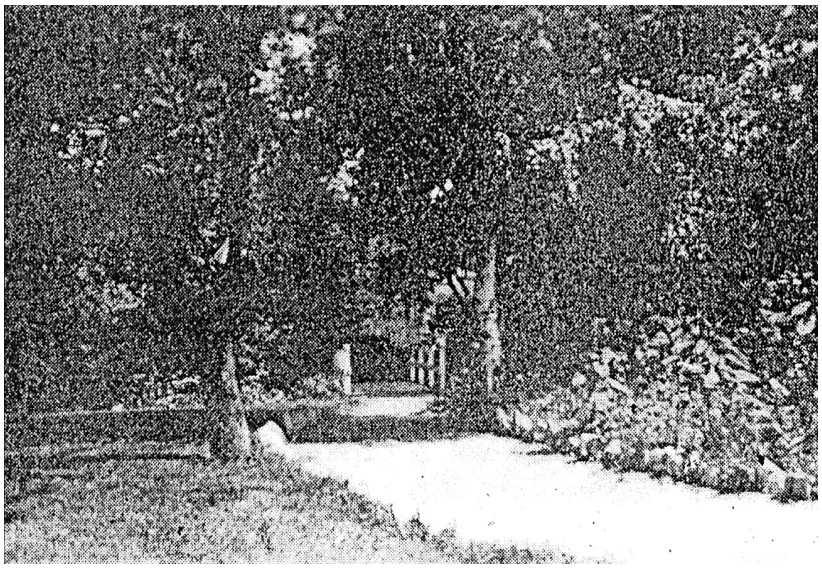
Map from 1918 Annual Report showing proposed land acquisition at the eastern end of the park.

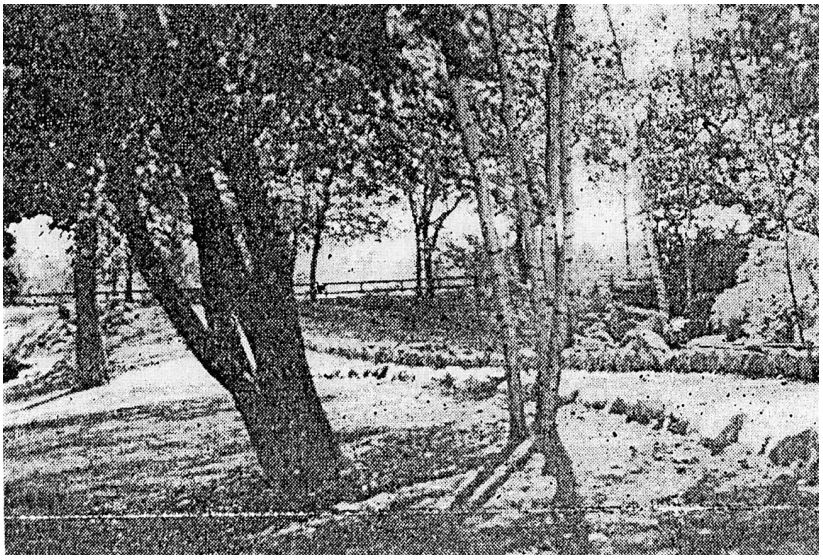
Expansion and new ideas (1915 – 1945)

Sewer and Transportation. Wellesley opted to connect with the Metropolitan District Commission's regional sewer system rather than establish an independent system. By 1921 construction of the sewer was completed, with the main trunk line running along Fuller Brook. The town's annual report indicated that the sanitary condition of brook below and at Grove Street was much improved. While the basic objective had been met, the parkway corridor was in disrepair, with several dumps along the park considered a problem.

At the same time that Wellesley was facing the need for a sewer system, other infrastructure needs were pressing as well. With growing population and increased use of automobiles, traffic was already crowding the town's squares and main roads, especially Washington and Central Streets. The Park Commission proposed in 1913 that a road be built along Fuller Brook from Maugus Avenue to Dover Road, ideally with connections to Washington Street at both ends.

In 1915 Ernest Bowditch, the engineer who was hired by the town to oversee design of the sewer, was also commissioned to address other town infrastructure issues. Like his predecessors at Fuller Brook Park, J.C. Olmsted and Manning, Bowditch took a broad view of his mandate and addressed several inter-related issues: drainage, parkland, sewer construction and transportation. Bowditch suggested four areas for acquisition, which were similar to those that had been proposed in 1899: land extending west from Fuller Brook Park along the sewer line to the Needham line; lands along Rosemary Brook to protect water supply; a connecting link between the aqueduct and the Metropolitan parks; and the upstream section of Fuller Brook Park which extended south from Hunnewell Playground.





These three pictures from the Townsman in August 1934 are among the few early photos of Fuller Brook Park. (Wellesley Historical Society)

The section of Fuller Brook Park west of Cottage Street was added in the 1920s (without boulevard) but it stopped at Dover Road, where it still ends today. Warren Manning, who had laid out the initial land acquisition lines for Fuller Brook Park, was consulted about boundaries in the Cottage Street to Dover Road segment in 1914, although it seems likely that his role was minor at this time. This was his last documented involvement at Fuller Brook.

The bold proposals for additional parkland and parkways (in the modern sense of roads for pleasure vehicles) persisted for several years, but ultimately they were not implemented. With the advent of World War I, priorities shifted and other matters took precedence within the town. However, the town continued to make minor additions to Fuller Brook Park to round out the boundaries.

Parkland Expansion and Improvements. Construction of the sewer between 1915 and 1921 caused major disruption of the entire length of Fuller Brook Park. It left the park in poor condition with much of the earlier landscaping ruined by the heavy construction. It also established a major piece of infrastructure in a fragile landscape, setting up a pattern of cyclical construction that has become an integral part of Fuller Brook Park.

Depression Era Landscape Improvements. Extra manpower available during the Depression allowed for enhancement of the park landscape, including several new pedestrian bridges and improvements to the path and plantings. During the early 1930s work was concentrated at the western end of the park, especially the section between Dover Road and Wellesley Avenue where the watercourse was straightened and realigned.

In 1936 construction of the new high school was begun on former parkland southeast of Hunnewell Field. Up until this time, Fuller Brook Park had been a relatively unified landscape which flowed largely uninterrupted along the southern edge of Hunnewell Field. Construction of the high school began a process of segmentation of Fuller Brook Park that accelerated in the post-war years as new recreational facilities were developed in the south part of Hunnewell Field. The presence of the high school also prompted further parkland improvements along the eastern section of Fuller Brook Park (the section now known as Caroline Brook), particularly improvements to the path system, which was heavily used by the high school students. This was followed by extension of the road system in the area. State Street, Smith Street and Rice Street, which had all been discontinuous roads, were extended and connected in a semi-circular arch that defined the edges of Hunnewell Field.

The hurricane of 1938 heavily impacted Fuller Brook, causing damage to many of the trees. The early 1940s was a time of limited staffing and budgets for the park department due to wartime priorities.

Reconciling multiple needs and visions (1945 - present)

Post-War Years. After World War II the town's emphasis shifted to recreational programs and facilities, diverting funds and man-power away from Fuller Brook Park. The problem was exacerbated by the fact that the park had been

Hunnewell Field connects the Caroline Brook Section to the Fuller Brook Section, but today across from the High School no path is clearly evident.

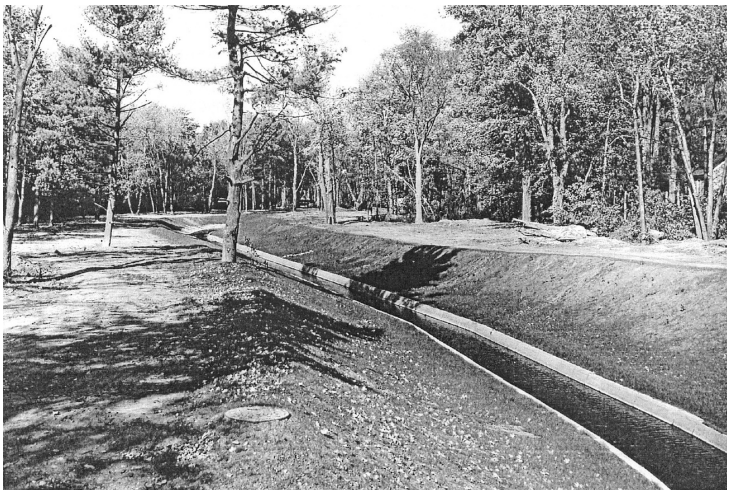
neglected during the war years; with stream channel clogged, plantings overgrown, paths deteriorated and bridges crumbling. The post-war building boom also had a direct impact on Fuller Brook as more impermeable surfaces were created, which in turn caused increased run-off.

Drainage Revisited: An Engineered Brook. Several major storms in the mid-1950s temporarily overloaded the Fuller Brook drainage system, flooding nearby homes and causing substantial damage to the stream corridor and adjacent parkland. In 1955 the DPW superintendent issued a major report on town drainage. He concluded that increased development was causing faster run-off and more frequent flooding, and that the situation was exacerbated by poorly maintained catch basins and the condition of the town's stream and brooks. Sand used on the streets was flowing into catch basins and into the town's waterways, decreasing the capacity of the streams and brooks, and aggravating flooding. Immediate actions were to provide regular maintenance of catch basins and to reduce of the use of sand on town streets. By 1956 the DPW was able to report that many of the smaller drainage problems had been solved. In 1957 the town also began a program of installing curbing for road longevity, appearance, drainage, maintenance and traffic control.

The problems at the major brooks were considered more serious. The town requested and received a special appropriation for matching state funds to improve the major waterways of the town, beginning with Fuller Brook. Because of the highly charged nature of the issue, Fuller Brook drainage improvements were placed under direct control of the selectmen.

The work was directed by the Massachusetts DPW's Division of Waterways. The primary focus was on straightening, deepening and widening the brook to drain flood waters away from developed sections of town into the Charles River. Full engineering treatment took place mostly in the western section of the park, from Dover Road to Grove Street. Stream-edge vegetation was removed; the banks were cut back to a 1:1 slope and turfed; the stream bed was lowered; new larger culverts were installed at a lower elevation; concrete channel liners were placed along the edges of the brook; and new

***BEFORE**: Pre-construction view of Fuller Brook near Grove Street, 1958. (NRC files)*



***AFTER:** Post-construction view of Fuller Brook near Denton Road, circa 1958. (NRC files)*

concrete vehicular bridges were built at Dover Road, Cottage Street and Grove Street. The visual effects were dramatic, transforming the stream from a semi-natural waterway into an engineered channel with turfed banks.

There was a public outcry against the heavily engineered approach, with numerous articles in the Townsman decrying the loss of the natural landscape and arguing for a gentler more holistic treatment of Fuller Brook. The DPW justified its actions in its 1959 Annual Report but also admitted that the new scheme was not as maintenance-free as originally planned.

"The Fuller Brook Project, from its inception, has been most controversial. However it is the firm belief of the Department that the appearance and utility of the finished product will more than justify the time and money spent upon it, and the sacrifice of the trees which were removed. Perhaps it should be observed that the three new bridges which were constructed were badly needed and that the Town's share of the appropriation for the project scarcely equals the cost of these three structures. In early statements regarding the project, it had been indicated that upon its completion the Department had no plans for mowing the area. Experience gained over the past year, however, indicates that at least the slope of the banks along the brook should be mowed regularly in order that at times of heavy run-off debris flowing down the brook will not collect in any one spot and form eddies which would result in excessive erosion."

By 1959 the emphasis had shifted to mitigating the visual impacts of the work with plantings and the town sought advice from civic groups. New plantings between Dover Road and Cottage Street included 25 dogwoods, 23 flowering trees, 239 evergreens and 175 maples. The appearance was park-like, with scattered trees and shrubs on closely-clipped turf, bringing a more manicured look to the landscape than had previously existed. The DPW credited the Wellesley garden clubs for design and supervision and commented in their 1960 Annual Report.

"In a few years these newly planted trees and shrubs should present a most effective appearance and this section, which once resembled swamp land, will add substantially to the beauty of the Town and afford a place for passive recreation."

Grading, landscaping and planting continued from Cottage Street to Grove Street in 1961-62. Upstream from Grove Street weeds and trash were removed along the brook to improve its appearance and to eliminate health hazards. Improvements at Fuller Brook continued through the 1960s but the approach was less heavy handed than it had been in the late 1950s. It was characterized by the DPW it as combining hydraulic requirements with beautification, creating "a beautiful park-like atmosphere." Hydraulic improvements consisted primarily of clearing brush and silt from the stream channel and cleaning culverts. Landscape treatment consisted of grading, seeding, replanting and upgrading of paths. Deteriorated footbridges were rebuilt at State and Morton Streets. Work also continued in the perennially problematic channel at Hunnewell Field between the aqueduct and the skating rink.

Segmentation: Changes at Hunnewell Field. During the first part of the twentieth century the northern section of Hunnewell Field was developed with recreational facilities while the southern section, through which Fuller Brook flowed, remained in a fairly natural state. Construction of the high school in the 1930s interrupted the continuity of Fuller Brook Park and brought more pressure for recreational facilities in the area.

The post-World War II emphasis on recreation and the proximity of the high school placed even greater pressure on the section of Fuller Brook that passed through Hunnewell Field. The new skating rink/pond built in 1950 was the first major post-war change. In 1961 500' of Fuller Brook in the southeastern section of Hunnewell Field was placed in an underground conduit to create two additional acres of land usable for recreation and athletic purposes.

In 1970 the DPW proposed to enclose more of Fuller Brook in a culvert to create additional space for recreation at Hunnewell Field. There was considerable debate about the impacts of the project. The Conservation Commission

wanted to find a way to improve the athletic fields without piping a long section of Fuller Brook or losing a number of large trees behind the football field. Discussions were held with the School Committee and the Park and Tree Board about land swaps in connection with proposed additions to the high school. Ultimately in 1972 the Planning Board approved the relocation of Fuller Brook at Hunnewell Field.

Finding a Balance. During the 1970s the town continued with remedial/maintenance work at Fuller Brook on an ongoing basis and tried to articulate its stewardship approach more clearly. The challenge was to balance the demand for efficient drainage and increased recreational facilities with the public desire to preserve natural resources. In 1976 a separate Park and Tree Division was created within the DPW with responsibility for parks, recreation areas, trees and other open areas. As part of this effort the Park and Tree Division implemented a zone management plan to guide care of different landscape types.

Wellesley's Natural Resources Commission (NRC) was established as a town department in 1980 to create a more balanced approach to management of Wellesley's parkland, particularly natural areas such as Fuller Brook. NRC's three sub-committees: long range planning, landscape advisory and wetlands protection, reflected its multiple missions. Under the new management structure, the Park and Tree Division of the DPW retained responsibility for park operations and maintenance, while the NRC had an advisory role on natural resources and park policy, .

By the early 1980s Wellesley was facing drainage problems in the area surrounding Fuller Brook and a new trunk sewer was needed. In 1981 a Surface Drainage Master Plan was prepared by Camp Dresser & McKee. As in earlier studies, the importance of regular maintenance was stressed, with emphasis on keeping the brook cleared of overhanging limbs and debris that would impede flow. While planning studies stressed the importance of routine maintenance, there were never adequate funds to accomplish the necessary work. When maintenance funding was cut in 1984, the NRC argued that it was wiser to stop maintaining an area than to spray. The Wetlands Protection Committee of the NRC along with the DPW developed brook maintenance standards "to expedite work which restores brooks while bringing work which alters brooks under review."

Meanwhile replacement of the main trunk sewer along Fuller Brook in the early 1980s caused considerable disruption, with many complaints from abutters. This was followed by planting of trees, shrubs and bulbs along the entire length of Fuller Brook. Several maintenance improvements were made, and additional benches and sitting stones were also included.

In the early 1990s a proposal was made to establish a "Rhododendron Botanical Park" at Fuller Brook, with a proposed pilot project between State Street and Wellesley Avenue. One aspect was the idea of using plantings to define boundaries between public and private land. The town was concerned about maintaining the proposed plantings and noted that similar plantings at town hall had not done well. Specific concerns were the frequent need for weeding of mulch beds and that mulch beds and groundcovers would be leaf traps in the fall and would make mowing more complicated. As the project was to be privately funded, there was also concern that commemorative plaques would be intrusive.

The debate about maintenance and vegetation management continued into the 1990s. In 1997 the issue was raised about how to make best use of the limited resources available. A distinction was made between aesthetics and need as one way of clarifying priorities. The NRC also stressed that policy decisions should not be made on an operational level by the DPW.

Conclusions. The story of Fuller Brook Park has been one of balancing the dual mandates of drainage and parkland, which are often in conflict with each other. In general the cycle has been that periods of flooding and drainage problems

have been followed by intensive efforts to streamline the brook to drain storm water away from flood-prone sections of town, usually involving heavy construction and major disruption, followed by restoration of the park landscape. These competing mandates have also been played out in the evolving management structure of the agencies responsible for Fuller Brook Park, from Parks Commission to Parks and Recreation Commission to DPW to DPW in conjunction with NRC.

Over the past century the park has also faced additional pressures and new mandates. It has resisted some, such as the suggestion of making the pedestrian path into a boulevard. But it has also been a victim of the need for additional recreation and parkland, which is most evident as Fuller Brook passes through Hunnewell Field and past the high school. Another major source of pressure has been development along the edges of the park. It is no longer the rural area set aside a century ago but an increasingly suburban area with buildings along the entire perimeter of the park, encroachments by private land owners in some areas and dramatically increased use.

Despite all these changes, Fuller Brook Park is surprisingly true to its original mandate. It continues to function as an effective drainage corridor when properly maintained and is a remarkably rural respite from the pressures of urban life.

When Frederick Law Olmsted described the restorative value of a natural landscape in his 1870 essay on "Public Parks and the Enlargement of Towns" he was urging the Boston Park Commission to create the park system later known as the Emerald Necklace. However, he could have been articulating the importance of Fuller Brook Park when he wrote,

"We want a ground to which people may 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 streets, where they shall, in effect, find the city put far away from them… Practically what we most want is a simple, broad, open space of clean greensward, with sufficient play of surface and a sufficient number of trees about it to supply a variety of light and shade . . . We want a depth of wood enough about it not only for the comfort in hot weather, but to completely shut out the city from our landscapes."

N.b. The preceding narrative is condensed from the second and third chapter of Shary Page Berg's Cultural Landscape Report: Fuller Brook Park, Wellesley, Massachusetts *(attached as Appendix 2.) Material edited out of the version included here, but available in the full report addresses the following matters: (a) the shaping of Wellesley' s landscape character (1635 – 1880s); (b) its early civic buildings and improvements; (c) cultural landscapes in Wellesley today; (d)the acquisition of land for the park; (e) certain details of the park's early development; and(f) proposals that did not come to fruition. In addition, the full report contains citations for the sources of information included in the report.*

Chapter four
Existing conditions

Introduction

An extensive survey of the land and resources within the Fuller Brook Park study area revealed a well-used linear open space, offering a broad variety of types of landscape. The park is organized around a stretch of Fuller Brook and one of its tributaries, Caroline Brook.

The inventory and analysis of existing conditions was conducted by each of the three disciplines on the planning team — landscape architect, historian and arborist. The results of these related activities have been integrated to present a comprehensive picture of the park's condition, and are presented in this chapter.

The findings are organized as follows:

- Summary of the analysis and issues identified for the park as a whole, organized into subtopics that describe various aspects of the landscape. These are: landscape character (including setting, spatial organization, topography and views); stream/drainage (including stream characteristics and drainage structures); circulation (including paths and roads); and structures and furnishings (including bridges, furnishings and signs); and vegetation.
- A segment-by-segment narrative description of the park, also organized by subtopic.
- Annotated plans showing, respectively, soil conditions, and the assessment of visual character and vegetation.

The stream, lawn and trees shown here combine to create a lovely pastoral setting typical of many areas of the park . (View looking northeast, between Wellesley Avenue and State Street.)

Analysis and issues

Fuller Brook Park is a popular and attractive natural landscape that has served Wellesley for more than 100 years. As it exists today, the park retains much of its beauty and popularity. Many conditions exist that are worthy of protection or enhancement. Some specific problem areas have also been identified.

Landscape character

The qualities of the park landscape in the park vary over its length. Much of the park retains the character of classic 19th century" parkland"—specimen shade trees arranged over gently rolling lawns; winding paths; masses of flowering shrubs; and a babbling brook. North of the high school, the park becomes a small patch of New England woodland and wooded swamp and then returns to a "park-like" setting, although with the stream underground and active recreation facilities such as a ball field and basketball court. The visual quality of some sections is degraded.

Overall, the park feels "away from the bustle" of Washington Street, while, for the most part, not feeling too isolated, due to the numerous crossing streets and adjacent houses. Well cared for residential properties line most of the park's boundaries

Views and Vistas

Views within the park tend to be very attractive, subtly changing as one moves along the path, and varying with the seasons. There are some incompatible views to adjacent property and some unattractive situations on park land, but these are not currently major problems. In some places, adjacent fences impact the views, by obstructing vistas, standing very close to the path or having deteriorated.

Circulation

Park circulation consists primarily of a single pedestrian path that runs the length of the property, on one side of the stream or the other. There are a few lateral paths with bridges that cross the stream allowing access from the other side. Path conditions vary widely (e.g., widths from 1' to 7', surfacing from dirt to asphalt, and condition from good to poor.) In several areas, truck tire ruts have been worn adjacent to the path surface. Several sizable portions of the park have no path access. Universal access is an issue where the path is too narrow or too steep adjacent to crossroads. Some lateral access points are informal, connecting from adjacent dead end streets, for example. Cross walk designs are inconsistently marked.

Orientation

Signage is limited, except for trail signs and trail map kiosks. There is no consistent design for park signs. Few signs identify the property as "Fuller Brook Park."There are opportunities for informational/educational signs (such as wayside interpretive signs and self-guided nature trail stations. The park has little identity when viewed from vehicles on its many crossing streets. Names of intersecting streets are not clearly identified for park pedestrians.

Drainage

The soils that underlie most of the lands in Fuller Brook Park are poorly drained, mostly consisting of mucky damp soil types or soils used to as landfill to raise the elevation of low-lying wetlands in the early 1900's. In places, this leads to perennial or intermittent damp areas, in which it is difficult to get grass to grow successfully.

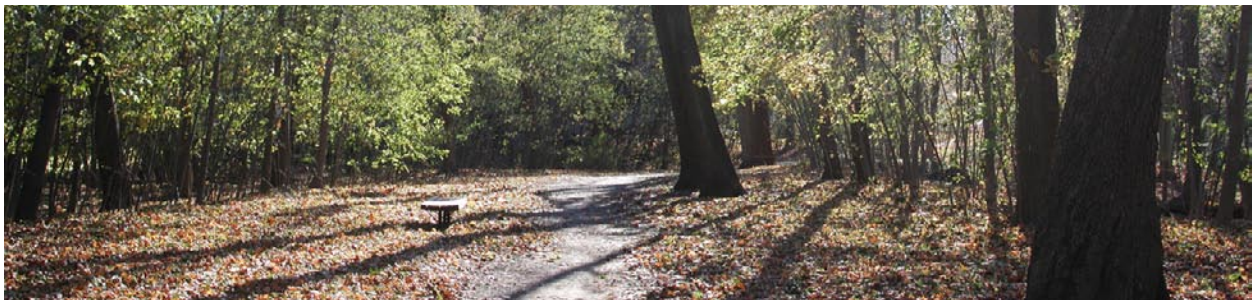
There are several areas along the path network where water collects on or adjacent to the path surface, leading to unsightly and, in some cases, unstable conditions. There are a few instances where surface water runoff is channeled

Varieties of landscape character in Fuller Brook Park

Parkland | near Dover Road

Parkland | near Wellesley Avenue

Wetland | near Wellesley High School



Parkland | near Caroline Street

Playground | in Phillips Park

by path to a concentrated point where it forms eroded gullies. Most of these problems are associated with incorrect grading of the path or of sloping land adjacent to it.

The Town's recent Stormwater Master Plan Update (SMPU) found that most of the culverts and bridges along the park's two stream courses (Fuller Brook and Caroline Brook) should not be over topped during normally anticipated storm flows.

Park edges

In some locations, the boundary on maps does not correspond with perceived boundaries of park (which are largely defined by vegetation). Sometimes this results from the character of adjacent uses extending onto the park property ("residential" scale plantings, etc.); in other places, vegetation within the park obscures how far the public land extends. In some instances, abutter improvements may have been made on park land.

On the other hand, there are several locations where abutting open land that is outside the park looks like an extension of park land.

Park furnishings and structures

There are relatively few furnishings (benches, trash receptacles, lampposts, etc.) and most are not consistent with each other. The most prominent historic structure in the park is the granite Flume, although several of the bridges that carry streets across the park are also historic. Pedestrian bridges date from the latter part of the 20th c. Most of the barrier/guardrails are either wood (made from telephone poles) or steel w-section highway crash barriers. Both types are in fair to poor condition.

Vegetation

The current condition of Fuller Brook Park reveals deferred landscape management practices and general lack of stewardship. Though basic maintenance operations are being performed, such as mowing, removing fallen trees and limbs, and some planting, the overall ecological quality has begun to deteriorate. During the inventory and assessment, the following key issues were noted:

Tree Risk Analysis

Forty-nine trees along or adjacent to the path exhibit structural defects and pose potential threats to public safety. These trees require immediate attention to assess their level of risk so that removal or stabilization work can be initiated and prioritized. Several trees included in the above figure are part of a grove and therefore, the figure could be greater once assessed further.

Invasive Plant Management

Invasive, non-indigenous vegetation such as Japanese knotweed, bittersweet, multiflora rose, and purple loosestrife are prolific, but the most critical condition is where the Norway maples have colonized. Over a hundred Norway maple trees were donated to the Town in the 1980s and many were planted in Fuller Brook Park. These trees are now established and along with street tree specimens and numerous landscape trees on abutter's properties are generating a tremendous seed source. Young trees are now colonizing the entire park, including the fragile stream bank. Norway maples produce dense canopies preventing the penetration of light and in conjunction with the allelopathic action of their roots and leaf matter creates ecological "dead zones". The result is poor regeneration of native tree species, shrubs, and herbaceous plants. Bare soil is also more susceptible to compaction which can permanently alter the soil structure, increasing run-off and erosion.

Stream bank Stabilization

The stream bank condition varies in condition from good to poor throughout the Park. In areas where the Norway maples have colonized and/or where a bare soil condition exists, the banking is predisposed to erosion. The meandering brook has undermined many tree root systems, leaving many large trees susceptible to wind throw.

Specimen Tree Stabilization

Several noteworthy specimens were included in the inventory to encourage further assessment and management planning.

Framework Trees

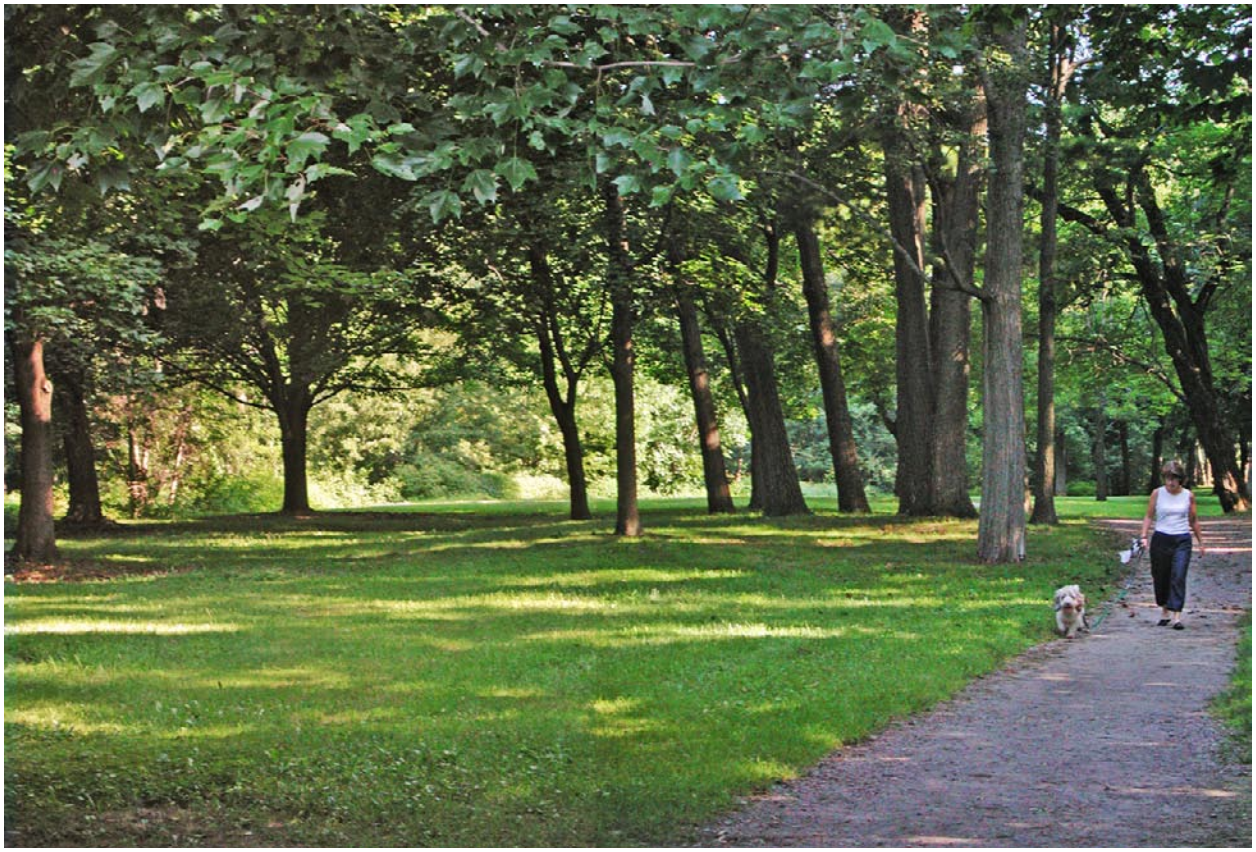
Recent replanting efforts have focused on introducing native plants to increase the botanical diversity. Though this is desirable, no effort is being made to replant the native framework trees, such as white pine, red maple, and oak species.

Understory Shrub Masses

With the exception of some invasive honeysuckle and euonymus, very few under story plantings exist.

Plant Maintenance

New planting efforts appear to be on going. Many of these trees require after care, including structural pruning.



Site Analysis

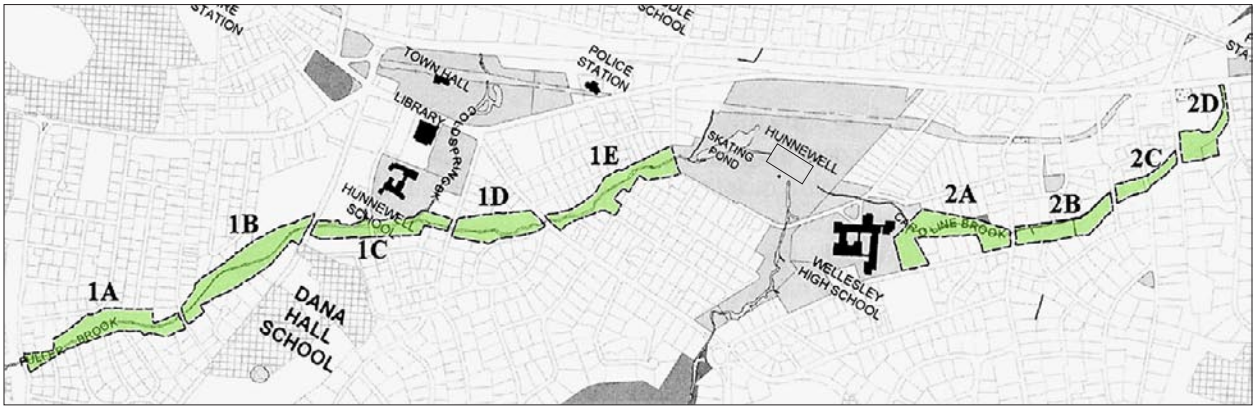
This analysis of the existing conditions in Fuller Brook Park is organized by segment, beginning at the western or downstream end of the park.

Fuller Brook Park, owned by the town of Wellesley, is a roughly 2 1/2 mile linear park comprising 23 acres that extends from Dover Road on the west to Maugus Avenue and Washington Street on the east. The park is variable in width, ranging from roughly 100' to 250' wide.

Although the park was conceived as a single unit, it is now has two distinct sections, which are separated by Hunnewell Field and the high school. The downstream section of the park, known as Fuller Brook, includes segments 1A-1E. The upstream section, known today as Caroline Brook, includes segments 2A-2D.

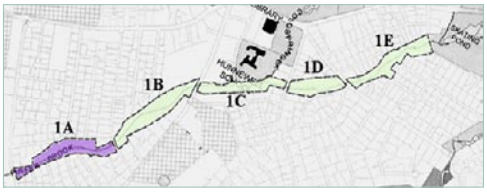
Within the discussion of each segment, the description is organized under four topics: landscape character, stream/ drainage, circulation, and structures and furnishings. (Note: Included in the Plan's Appendices are memoranda from Natural Resources Commission staff that expand on issues of concern and supplement the descriptions in the plan.)

Following the narrative description are two sets of graphic plans, which depict an analysis of (i) soils underlying the park area and (ii) visual character and vegetation within the park.



Map showing segments of Fuller Brook Park. (Base map by Wellesley GIS)

Segment1A | Fuller Brook Section- Dover Road to Cottage Street



The dirt and gravel path near the Dover Road entrance to the park, illustrates grading and accessibility issues.

Landscape Character

Segment 1A, located at the western or downstream end of Fuller Brook Park, is one of the most spacious and rural sections of the park, with Wellesley College's Nehoiden Golf Course to the west and single family residences on large lots abutting the park on both sides. The houses along the northern edge are generally well-screened while some of the houses to the south are more visible, with lawns running right to the edge of the park. Vegetation within the park is varied, ranging from natural woodland, which occurs along much of the northern edge of Segment 1A, to areas of lawn interspersed with trees to ornamental plantings. Open areas such as that west of the Leighton Street footbridge (photo 1A-1) contribute to the park-like character of the landscape. A puddingstone boulder along the path between Vane and Winthrop Streets is a prominent natural feature.

Stream/Drainage

The portion of Fuller Brook from Dover Road to just east of Grove Street was lowered and lined with concrete curbing (photo 1A-2) in the late 1950s. In general this section of the stream bed is narrow and deep with steep sides. Most of the curbing still exists but it has shifted over time and is no longer effective in channeling the watercourse. There is minor erosion in some areas.

Map of Segment 1A. Dover Road is to the left, Cottage Street is to the right. The white line marks the boundaries of the park. This segment of Fuller Brook Park is wider than many of the other segments. All segment maps are at approximately the same scale.

Circulation

Dover Road marks the western edge of Segment 1A, Cottage Street marks its eastern edge. There are also several streets that dead end at the park: Vane Street, Winthrop Street, Benton Street, Tappan Street on the south, and Appleby Road on the north. Leighton Road runs parallel to Fuller Brook for several blocks. The main park path, which is gravel-surfaced and about 4' wide for most of Segment 1A, runs south of Fuller Brook for this entire segment. There are short intersecting paths at Leighton Road and Appleby Street, where there are also footbridges.

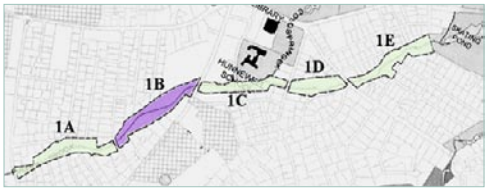
Structures and Furnishings

There is one vehicular bridge that is considered part of Segment 1A, at Dover Road. It is a two-lane bridge with concrete structure and rails, which was built as part of the drainage improvements of 1958-59. The east side is planted with junipers. The Cottage Street bridge is described in Segment 1B.

Segment 1A also has two footbridges. Footbridges were first built at Leighton Road and Appleby Street in the early 1930s, the current bridges are late 1980s replacements with steel stringers, concrete abutments, and wooden decking and rails.

Along the path on the southern side of the brook, there are several benches. There are trail posts at Dover Road and Cottage Street.

Segment1B | Fuller Brook Section - Cottage Street to Grove Street



Many users enjoy the paths

Landscape Character

Segment 1B continues the relatively rural character of Segment 1A, particularly at its western end where houses are set back from the park and well-screened by vegetation. Vegetation within the park is varied, ranging from natural woodland, which occurs along much of the edge of Segment 1B, to areas of open lawn to ornamental plantings at bridges. Open lawn areas with scattered trees, such as that west of Grove Street, contribute to the park-like character of the landscape.

Stream/Drainage

The portion of Fuller Brook from Cottage Street to just east of Grove Street was lowered and lined with concrete curbing in the late 1950s. Most of the curbing still exists but it has shifted over time and is no longer effective in channeling the watercourse. In general

This section of the stream bed is narrow with steep sides and largely inaccessible due to grade and shrubby vegetation along the stream edges. There is some erosion between Cottage and Grove Streets.

Circulation

Cottage Street marks the western edge of Segment 1B and Grove Street marks its eastern edge. There are no intersecting roads in this segment, but Denton Road dead ends just north of the park and there is a pedestrian right-of-way from the end of the road to the park. The main park path, which is gravel-surfaced and about 4' wide for most of Segment 1B, runs south of Fuller Brook.

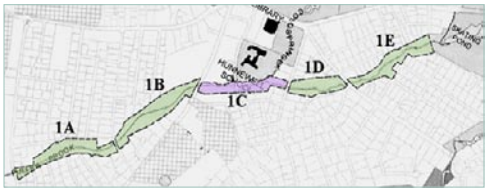
Map of Segment 1B. Cottage Street is to the left, Grove Street is to the right. The path is faintly visible running south of the brook.

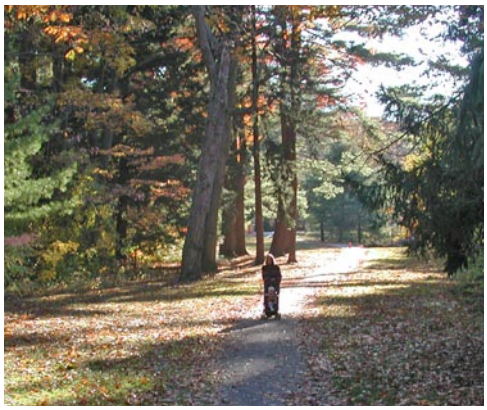
Structures and Furnishings

The bridges that mark the ends of Segment 1B are the Cottage Street and Grove Street bridges. Both are two-lane vehicular bridges with concrete structure and rails. They were built as part of the drainage improvements of 1958-59 and are similar in style to the Dover Road bridge. Segment 1B has no footbridges.

Along the path on the southern side of the brook, there are several benches of varying types. On the north side there is one bench east of Cottage Street. There is a trail kiosk at Cottage Street.

Segment 1C | Fuller Brook Section - Grove Street to Brook Street





This section of the park has a wide path and poor drainage.

Landscape Character

Segment 1C from Grove Street to Brook Street is divided into two short blocks. The block between Grove and Cameron is narrow but feels larger because it is well-screened from surrounding land uses by vegetation and in some places by changes in topography. Single family houses lying along the south side of the park are barely visible through the vegetation. On the north side there is a large brick apartment building near Grove Street. The section east of Cameron Street is dominated by the adjacent Hunnewell School and its playground, which is very close to the brook and path.

Vegetation in Segment 1C generally has a woodland character with naturally occurring plant associations, especially on the south side of the stream. This character is reinforced by the fact that woodland continues onto adjacent private property along the entire south side of Segment 1C. The only area of open lawn is the north side of the park east of Cold Spring Brook near Brook Street, which is similar to some of the park-like areas in Segment 1D.

Stream/Drainage

In Segment 1C, the stream bed is narrow and deep at its western end, and wide and meandering at its eastern end. It has a more natural appearance than Segments 1A and 1B because it does not have riprap or curbing. East of Grove Street there is a change in grade marked by a flume. There is erosion east of Grove Street and sediment deposit and erosion east of Cameron Street. East of the Hunnewell School, Cold Spring Brook enters Fuller Brook from the north. The Grove Street flume is a narrow structure creating a channel about 30' long and 8-10' wide with granite block side walls reinforced with concrete at the bottom and outer edges. The concrete bottom creates a small waterfall at the west end.

The main path crosses Cold Spring Brook at this bridge.

Circulation

The main park path runs along the south side of the stream from Grove Street to Cameron Street and on the north side from Cameron Street to Brook Street. This section of path, which is heavily used by school children, is paved with asphalt and variable in width, typically about 4'. Sections east of Brook Street are low and poorly drained in places. There is a worn path on the north side from Grove Street to Cameron Street and on the south side east of Cameron.

Structures and Furnishings

The Cameron Street bridge is a two-lane vehicular bridge of mortared fieldstone face with a single arch and stone parapet without a capstone. It is crescent shaped in plan and there is evidence of a former lamp post mounted on the bridge. It was designed by engineer A. Stewart Cassidy and built in 1930. The Brook Street bridge is discussed in the following section.

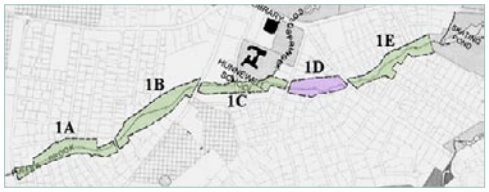
There is a late twentieth century pedestrian bridge over Cold Spring Brook with wooden structure and rails and concrete abutment. It is similar to the Leighton and Appleby footbridges, although the rails are more widely spaced. Near the Hunnewell School, three large stones function as informal benches. There are small trail posts at Grove and Cameron Streets.

Map of Segment 1C. Grove Street is at the left, Cameron Street is in the center, Brook Street is at the right. Dana Hall School is at the lower left. Hunnewell School is just off the map at the upper right. Cold Spring Brook enters Fuller Brook from the top (north) near the right edge of the map.

Segment 1D| Fuller Brook Section - Brook Street to Wellesley Avenue

Landscape Character

Segment 1D is a particularly pleasant portion of Fuller Brook Park, largely because this part of the park has a secluded character that belies the close proximity of the adjacent neighborhood. Houses are well-screened along the entire length of this segment.



The south side of the brook is wooded, with a more open landscape on the north, consisting of lawn areas with scattered trees along the path and a narrow strip of woodland beyond. Some areas on the north side near Wellesley Avenue are low and wet.

Fuller Brook has a natural look in this segment.

Stream/Drainage

Fuller Brook is generally wide and meandering in Segment 1D and is at nearly the same grade as the path. It has natural appearance and none of the engineered character of Segments 1A and 1B, due in part to the dense multi-story woodland vegetation along the edges of the stream. Fuller Brook is less visible from the path than it is in Segment 1C because of the heavy vegetation.

Circulation

Segment 1D is one of the shortest segments in Fuller Brook Park and is a single unit without any intersecting roads. It is bounded on the west by Brook Street and on the east by Wellesley Avenue. The asphalt paved path runs along the north side of the brook for the entire segment and is heavily used by school children and others. There is also a worn path on the south side from Brook Street to Marvin Road, which runs along the southern edge of the park near Wellesley Avenue.

Map of Segment 1D. Brook Street is to the left, Wellesley Avenue is to the right. Note: This map is at the same scale as the other aerial views of Fuller Brook Park. It is smaller because this segment is considerably shorter than the other segments.

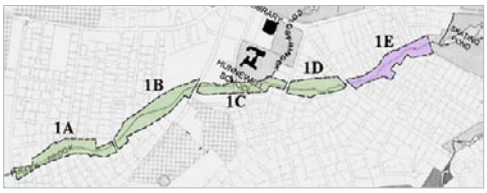
Structures and Furnishings

The Brook Street bridge, like the other bridges along Fuller Brook, is a two lane bridge, although Brook Street is narrower than most of the other cross streets and thus less of an intrusion into the park. The Brook Street bridge is earlier and far rougher in its construction than the other stone bridges. It consists of two large round culverts with concrete surrounds, large rough granite block abutments and a wood rail fence along Brook Street, which contributes to the rural character. The Wellesley Avenue bridge is discussed in segment 1E.

Segment 1E | Fuller Brook Section - Wellesley Avenue to State Street

Landscape Character

Segment 1E is a relatively long segment, unbroken by road crossings. Parts of it have a fairly natural character, like a path through the woods. The western portion of the segment is wooded and natural on the south side, with single family residences on the north that are partially screened by vegetation. In the eastern portion of this segment there is a strong distinction between the south and north sides. Vegetation is heavier on the south and generally screens the adjacent residences from the park. On the north side, highly maintained lawns extend all the way to the brook, creating the impression that the land is actually private property rather than park land.



This segment includes tranquil trees-over-grass scenery typical of the era of the park's founding 100 years ago.

Stream/Drainage

The stream channel is wide, shallow and meandering, similar to its character in segments 1C and 1D. There is a narrow strip of vegetation along both sides but because it is low and the elevation of the brook is close to that of the path, the brook is clearly visible. There is a sediment deposit at the Morton Street footbridge.

Circulation

Segment 1E extends from Wellesley Avenue on the west to State Street on the east. The path runs along the southern edge of Fuller Brook for the entire length of Segment 1E. It has an asphalt surface, is approximately 4' wide and receives moderate use. There are no cross streets but Morton Street dead ends just north of the park. There is a short cross path between Morton Street on the north and Willson/Twitchell Streets on the south.

Structures and Furnishings

The Wellesley Avenue Bridge is a two lane vehicular bridge, crescent-shaped in plan, with single arch, battered dressed

Map of Segment 1E. Wellesley Avenue is at the lower left and State Street is at the right. Part of Hunnewell Field is visible at the far right.

granite block walls in random ashlar pattern, granite block coping with slight overhang. Initially built in 1891, the bridge was refaced in 1931 with redesign by A. Stewart Cassidy. There are no pedestrian bridges in Segment 1E. Cut granite blocks are used for benches east of Brook Street and there is a trail post at Brook Street.

The State Street Bridge is a two-lane arched vehicular bridge, with mortared boulder walls and parapet, and a concrete sub-structure. The current bridge was built in 1949 when State Street was relocated. The Morton Street footbridge has granite block abutments with concrete deck and wooden rails. The structure is similar to that of the Grove Street flume but the deck and rails are recent replacements. There is a memorial bench east of Wellesley Avenue and trail markers at major intersections.

The need for wider paths is evident here.

Hunnewell Field

Hunnewell Field is important as one of two areas that break the continuity of the park, dividing the Fuller Brook section on the west from the Caroline Brook section on the east.

Hunnewell Field (which is bounded by Washington Street on the north, State Street on the southwest, Smith Street on the south and Rice Street on the southeast) is a 49.1-acre recreation area, the core of which was donated to the town by H. H. Hunnewell in 1901. Fuller Brook initially continued through it as part of Fuller Brook Park, but over time the brook and adjacent path have been rerouted and marginalized. Remnants of the path and brook can still be found, but they are dominated by the adjacent recreational facilities.

Informal path behind the Football Stadium.

At Hunnewell Field there are three distinct tributaries flowing into Fuller Brook. Abbott Brook flows from the north and Caroline Brook from the east. The main stem of Fuller Brook flows into Hunnewell Field from the south.

At State Street, the path connects the Fuller Brook and Caroline Brook sections of the Park through a new parking lot, winding behind the Football Stadium via a narrow dirt path. The path route then follows a service road to Smith Street, continuing on the sidewalk past the High School and onto Rice Street where it enters the wooded wetland at the beginning to the Caroline Brook Section of the Park.

Wellesley High School

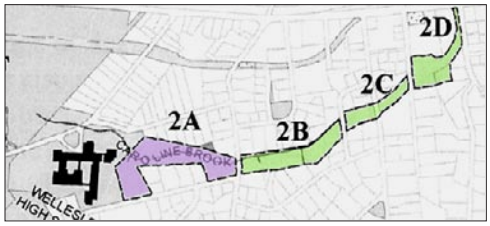
The second area that interrupts the continuity of Fuller Brook Park is Wellesley High School, built in 1936 southeast of Hunnewell Field. In order to accommodate the building, the property, which originally was part of Fuller Brook Park, was filled in. The central tributary stream that is now called Caroline Brook was relocated into a narrow channel running between Paine Street and the High School.

Between the wetland next to the High School and Hunnewell Field the Fuller Brook Park route follows this Paine Street sidewalk.

As at Hunnewell Field, the High School breaks the continuity of both the brook channel and the pedestrian and cyclist route. The wide paved expanse at the beginning of Rice Street, coupled with the lack of clear signage reinforce the separation between the two sections of Fuller Brook Park. When the park path begins again to the east of the High School, it is poorly marked and hardly recognizable as part of the same Fuller Brook Park corridor that reaches to the State Street edge of Hunnewell Field from the west.

During summer months the wetland is lush.

Segment 2A | Caroline Brook Section - Paine Street to Forest Street



Landscape Character

The section of Fuller Brook Park east of the high school marks the beginning of the eastern half of the park, known as Caroline Brook. Here the park landscape is dramatically different than anywhere else in the park. Just beyond the high school the path enters a wooded wetland, which extends for much of Segment 2A.

This area is generally natural, overgrown and much wilder in character than any other segment of the park. Ironically it this segment that is most like the original pre-park landscape. It is a relatively wide section with houses well screened. As Segment 2A approaches Forest Street it rises in elevation and the path moves through an area of open lawn.

A narrow boardwalk bridge over Caroline Brook provides an environmentally appropriate stream crossing in this classic New England red maple swamp.

Stream

Immediately north of the high school the brook runs in a narrow, deep channel for a short distance before widening into the wooded swamp. The brook is wide and meandering and the channel is less well defined through the swamp but becomes narrower near Forest Street. A distinctive feature in this segment is that the manholes of the sewer line are raised several feet above the ground plane.

Circulation

Segment 2A begins at Paine Street just east of the high school and

Map of Segment 2A. Wellesley High School is at the left, Paine Street is at the top, Forest Streetis at the right, Seaver Street is at the bottom.

ends at Forest Street. The path through the swamp is about 4' wide and earthen, with wood chips in wetter areas. As it approaches Forest Street it becomes a single track that is far narrower than the rest of the Fuller Brook Park trail system.

Structures and Furnishings

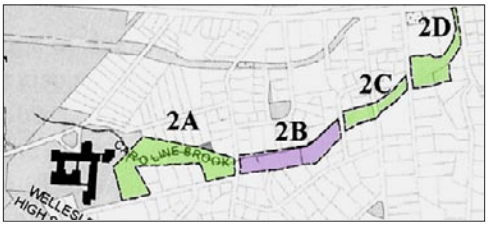
There are two culverts, one at either end of this segment. A culvert with a mortared fieldstone headwall carries Caroline Brook under the high school access road. A large culvert with headwall of granite blocks carries Caroline Brook under Forest Street.

A late twentieth century boardwalk and low pedestrian bridge carries the path over the channel of the brook.

Segment 2B| Caroline Brook Section - Forest Street to Caroline Street

Landscape Character

Segment 2B begins at Forest Street and continues east to Caroline Street. Although Caroline is a relatively minor street, it marks a significant transition in the character of the park as there is no above-ground brook east of that.



Segment 2B is characterized by a relatively wide swath of open lawn with woodland on both sides. Residences are well screened by woods throughout this segment, giving it a rural character despite the proximity of the houses. One characteristic separates this segment from Segments 1A-E, where the brook is a central feature of the park: here it runs along the northern edge and is largely invisible from the path. There are distinctive peeling birches at Forest Street, which is one of the most noticeable uses of ornamental plantings in the park.

The path in this segment follows a straight alignment.

Stream/Drainage

Caroline Brook, an intermittent stream that runs along the northern

Map of Segment 2B. Forest Street is on the left, Caroline Street is on the right. There are no intersecting roads. The path is visible in the center of the park while the brook runs along the northern (top) edge. The upper right corner of the segment is where Caroline Brook emerges from underground pipes.

edge of the park, emerges from a culvert just west of Caroline Street, but is underground east of that. Two small channels run north/south across the park, emptying into Caroline Brook. There is some erosion and some wooden cribbing along parts of Caroline Brook.

Circulation

The width of the path is variable through segment 2B and is surfaced with several different types of stone mixes. In general the path through the Caroline Brook section of the park is not as heavily used as the Fuller Brook section.

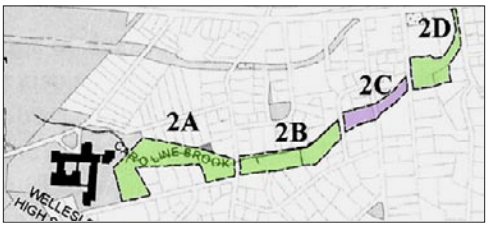
Structures/Furnishings

There are several small culverts that carry the brook under the path and a larger granite-faced culvert that carries it under Forest Street. There are several benches along this segment and telephone pole guardrails are used to mark the western end of the segment at Forest Street.

Segment 2C | Caroline Brook Section - Caroline Street to Seaward Road

Landscape Character

East of Caroline Street there is no stream, which alters the character of the parkland, making it a linear park but no longer a brookside park. From Caroline to Abbott, the park is a roughly 60' wide corridor of open turf with a row of deciduous trees on either side backed by woodland. There are specimen plantings along the roadways including flowering crabs. The section from Caroline to Abbott is particularly well screened and park-like. The section from Abbott to Seaward is narrower and is also more closely bounded by buildings and an adjacent parking lot, making it less secluded.



View toward Seaward Road.

Circulation

Segment 2C begins at Caroline Street. It is bisected in the middle by Abbott Street, Seaward Road forms its eastern edge. For the entire length of this segment, the path is narrow and is surfaced with dirt, gravel or stone dust.

Map of Segment 2C. Caroline Street is on the left, Abbott Street is in the middle and Seaward Road is on the right. This segment is relatively short and is broken in the middle, making it seem even shorter.

Structures and Furnishings

Telephone pole guardrails, many of which are deteriorated, mark the road edges at several cross streets in the Caroline Brook section of the park.

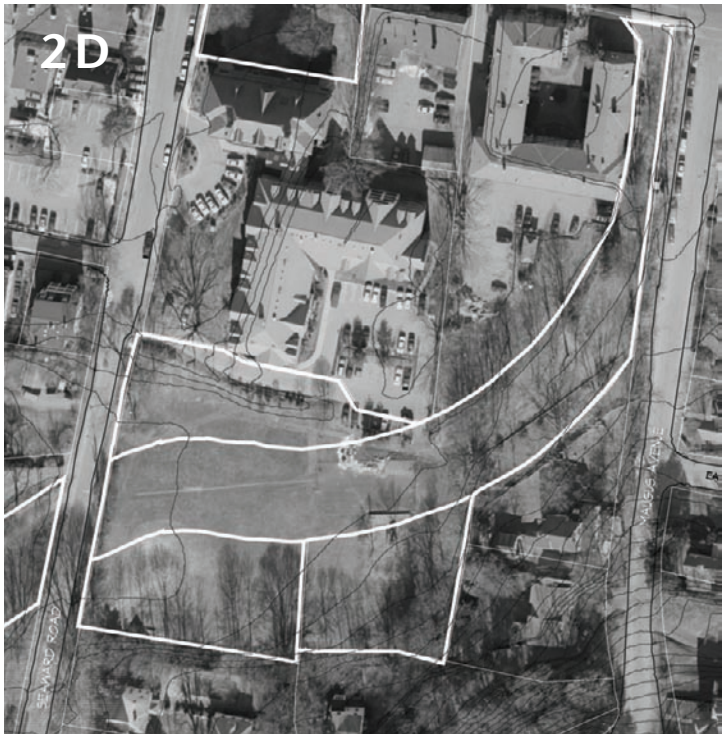
Segment 2D | Caroline Brook Section - Seaward Road to Maugus Avenue

Landscape Character

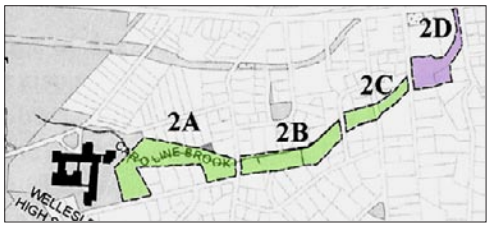
The section between Seaward Road and Maugus Avenue is largely comprised of Phillips Park, a large open lawn area with basketball court, baseball field, picnic table and trash cans, that is very different than any other section of the park. There is chain link fence along the western edge of Phillips Park, and also ornamental crabapples. Adjacent buildings are generally close to the park and are not well screened, giving this segment less of the secluded character associated with other parts of Fuller Brook Park.

Circulation

At Phillips Park, the path runs along the north side of the park, becoming asphalt from the basketball court east to Maugus Avenue.



Map of Segment 2D. Seaward Road is to the left and Maugus Avenue to the right. Phillips Park is in the lower center and is shown as four separate parcels of land. Washington Street is just off the upper right.



In Phillips Park, the path is reduced to a narrow, casual track

Phillips Park playground

After Phillips Park, the path moves north along the west side of Maugus Avenue to the intersection with Washington Street. There is also vehicular access (for service vehicles) into Phillips Park from Maugus Avenue.

Structures and Furnishings

This is the only section of Fuller Brook Park with active recreation facilities. There are no historic structures here and no visible brook.

Chapter five

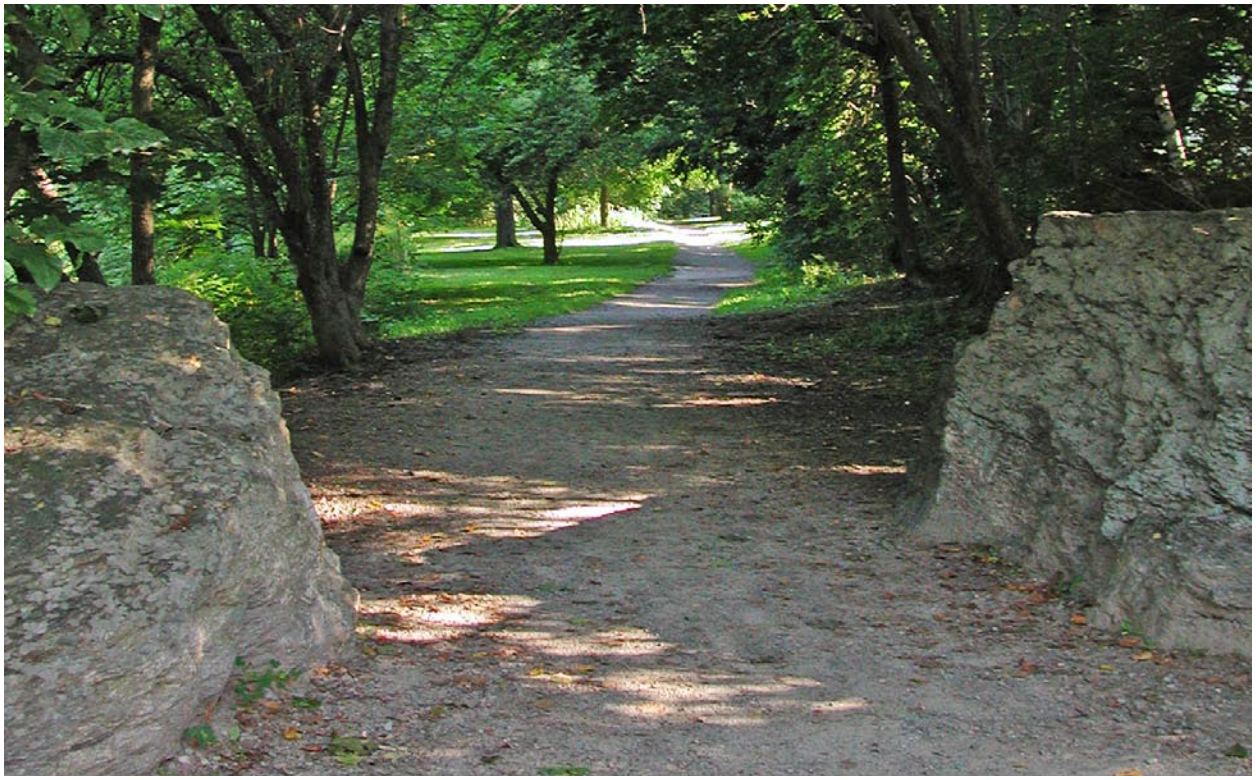
Guiding principles

Overview

Perhaps the most important component of this plan is the statement of guiding principles and goals, around which public and municipal consensus was carefully developed.

The guiding principles clarify the community's vision for Fuller Brook Park and the rationale for the Master Plan's recommendations. The principles describe a number of "lenses" through which to consider the overall vision and lay the groundwork for achieving it. These principles will help guide the Natural Resources Commission as it implements the Plan.

As part of the planning process, the Natural Resources Commission presented a draft version of the guiding principles for public comment. After extensive public feedback, these guiding principles were revised as outlined on the next page.



Puddingstone at either side of the path not far from the Dover Road entrance.

Fuller Brook Park Preservation Master Plan
Guiding principles

A park for the public

Maximize public awareness and understanding of Fuller Brook Park and ensure quality access

- Maintain and enhance visual and physical connections to the park
- Expand universal accessibility
- Ensure safety and security for park users

A beautiful park

Maintain and enhance the scenic quality of the park

- Improve appearance of degraded areas
- Reduce/ameliorate views that are not in harmony with the park landscape
- Create and maintain a consistent design "palette" for the park

A park that honors its history

Protect and enhance historic features and landscapes within the park

- Preserve the park landscape in the spirit of its original creators
- Preserve historic structures, such as bridges/culverts and flumes
- Provide public information about the park's unique history

A window on nature

Protect and enhance significant natural resources in the park

- Support biological diversity and ecological integrity in the park
- Provide public information about the ecology of the park

A park for passive recreation

Support compatible passive recreation use of the park

- Facilitate a wide variety of park uses that have a low impact on the park's natural, historic & aesthetic resources

A park linked to larger systems

Protect and enhance the function of Fuller Brook Park in its town-wide context

- Support use of the park as a continuous link in the town-wide trail network and a cross-town alternative to Washington Street
- Protect the park's critical role in the town's stormwater drainage system

A multi-purpose park

Carefully balance the park's conservation, recreation, aesthetics, historic preservation and stormwater management purposes

- Consider full range of park goals when making management, improvement and use decisions
- Seek to realize each goal for the park without significant negative impact on the other goals.

Chapter six

Recommendations

Overview

Fuller Brook Park was conceived at the end of the nineteenth century as a multi-purpose civic improvement, combining public park amenities with storm water drainage. At the beginning of the twenty-first century, these two basic goals still pertain.

The current Preservation Master Plan is presented within this frame of reference. The research findings by the planning team — about the Park's history, its current condition and how the people of Wellesley use and value it — provide the basis for the specific recommendations, but Fuller Brook Park's essential identity and nature remain unchanged.

With its graphics and narrative descriptions, the Preservation Master Plan is intended to be a flexible and usable resource for years to come. Future Natural Resource commissioners will be able to look to it for guidance and direction. It can function as a maintenance aid and management tool. It can serve public informational and educational purposes. Most of all, it is the one place where the background and context, hopes and intentions, ideas and rational for the preservation and use of the park are clearly spelled out.

Successful master plans describe a practical vision for protecting, caring for and improving a particular place. They recognize the historic qualities of the landscape, the evolution of its environment over time, and the opportunities and constraints imposed by current conditions. Effective master plans articulate goals defined by consensus among all

View to the northeast, between Wellesley Avenue and State Street

interested parties, and in turn, offer recommendations supported by a clear and broad-based rationale. They are to be realized over time, by increments, thus establishing priorities and providing criteria for evaluating future decisions.

The Fuller Brook Park Preservation Master Plan has strived to achieve these goals. In this chapter the heart of the plan is spelled out. It is divided into three sections:

- Historic treatment guidelines
- Action recommendations
  - Paths
  - Vegetation
  - Stream and streambanks
- Policy recommendations

Note: Concurrent with the Preservation Master Plan, Wellesley's Department of Public Works commissioned an update to the Town's Stormwater Master Plan. That project addressed engineering issues related to the watercourses and culverts of Fuller Brook Park. Relevant recommendations of the Stormwater Management Plan Update for Fuller Brook Park are summarized below. Details may be obtained from Wellesley DPW.

- Three maintenance projects within the park were identified (one "medium" and two "low" priority; two involve erosion repair and one is an outfall structure repair.)
- Capital project needs within the park include seven street drainage pipe replacements, two new street catchbasins and replacement of one undersized drain line.

Only minor stormwater management-related improvements are recommended for the Fuller Brook Park area in the Update. The recommendations of the two plans are complementary and together form a program of improvements for the corridor. Care should be taken to continue the collaboration between the Natural Resources Commission and the Department of Public Works to ensure that both park and drainage objectives are met in a balanced manner.

Historic treatment guidelines

As a component of the Cultural Landscape Report for Fuller Brook Park, prepared by the Shary Page Berg, landscape historian on the planning team, a list of "treatment" guidelines were developed to protect the integrity of the historic Fuller Brook Park landscape. They are reproduced here in slightly edited form.

Approach

Treatment definitions established by the National Park Service (NPS) are geared to structures and to landscapes with a clearly defined appearance, such as a park created by a well-known landscape architect or a battlefield associated with a specific event. Fuller Brook Park presents a challenge because it is an evolved landscape that was shaped by many different influences over more than a century. The Cultural Landscape Report documented the history and current appearance of the park and evaluated its historical significance according to NPS criteria. For the most part, character defining features are discussed here in terms of the underlying principles that have shaped the landscape rather than the specific form and details of individual features.

The Secretary of the Interior's Standards for Treatment of Historic Properties identify four possible treatments for historic properties: preservation, rehabilitation, restoration and reconstruction. For a landscape like Fuller Brook that has changed over time and must continue to evolve to meet the multiple demands and changing needs of the community, preservation and rehabilitation are the most appropriate treatments. Rehabilitation would allow changes that improve the utility or function of the park to make possible its efficient use while preserving those portions or features that are important in defining its significance.

Fuller Brook Park has seen many changes over time, but for more than a century there has been an underlying vision for this land as a park and as a drainage feature that was first articulated in the March 1899 letter from the Park Commissioners. Despite some physical changes, this underlying vision have largely been respected as the park has evolved. All modifications proposed in this plan have been carefully evaluated for their impact on the character-defining features, as described in Chapter 5 of the Cultural Landscape Report, and for their adherence to the following historic values, which provide a framework for decision-making.

Historical Values of the Park

Drainage and Parkland

Since its creation in 1899, Fuller Brook Park has had the dual purpose of improving drainage in flood-prone areas and providing parkland. Drainage concerns have typically shaped major policy decisions and physical changes, which have generally been followed by landscape improvements. These fundamental purposes, which sometimes conflict, remain central to the identity of Fuller Brook Park today.

Linear Corridor

Fuller Brook Park was conceived as a unified park corridor along an open brook. The park has become fragmented over time, especially at Hunnewell Field and the high school. Today, Fuller Brook Park is perceived as two distinct sections, Fuller Brook and Caroline Brook. Despite these changes Fuller Brook Park is still valued as a much-loved recreational resource that includes parkland and a multi-use path.

Invasive riparian species need to be controlled at numerous locations along the historic course of the stream.

Transportation Corridor

Early concepts for the park also emphasized the importance of Fuller Brook as a natural "parkway," which meant a linear park that provided an alternative to Wellesley's busy downtown streets for pedestrians, bicycles and initially for horseback riders. Fuller Brook Park continues to function as an important non-motorized transportation corridor and a critical link in Wellesley's trail system.

Evolved Landscape Character

The landscape of Fuller Brook has evolved over time as town needs and priorities have changed. Changes have been cyclical, usually precipitated by drainage-related construction. Different sections have a distinct landscape character based on natural features and adjacent land uses. The general trend has been away from a natural landscape of winding watercourse and woodland vegetation to a more engineered stream bed and a more park-like landscape that includes some ornamental trees and shrubs, as well as native plants. The quality of the landscape, especially the vegetation, is central to the identity of the park.

Natural, Cultural and Recreational Resource

Fuller Brook Park, like most large public parks, originated as a natural landscape and retains values associated with its natural resources, including water resources, flood storage, vegetation and wildlife.

The park is also valued as a cultural resource with artifacts ranging from stone bridges to flumes and as an example of visionary regional planning.

Stewardship

Fuller Brook Park has a complex management history that has always involved multiple town agencies. The town must continue to acknowledge the multiple purposes of the park and reconcile competing interests. Another aspect of stewardship is maintenance, which has varied over time, with a general pattern of less funding available for maintenance today than during the early years of the park. Maintenance priorities must be established with the fundamental principles of the park in mind.

Preservation Principles for Landscape Treatment

Landscape Character

Preserve the park landscape "in the spirit of its original creators" recognizing that there are many sub-landscapes, each appropriate to different areas within the park.

- Reinforce the visual and ecological diversity of the landscape.
- Support the ecological health of the landscape and work to reduce invasive species.
- Use primarily massed plants and natural plant associations.
- Restore/enhance degraded areas of the landscape.

Drainage/Hydrology

Assure that Fuller and Caroline Brook continue to function as an effective drainage system in a manner that also respects the landscape character of the park.

- Continue current approach of retaining natural appearance of brook while assuring that it functions as an effective drainage system.
- Address specific problem areas as needed to prevent erosion and enhance flow.

Circulation

Enhance quality of Fuller Brook path system as a multi-modal non-motorized transportation corridor.

- Create stronger pedestrian linkage within Fuller Brook Park, especially in areas that are not currently accessible.
- Improve areas where path is degraded or functions poorly.
- Improve ease of access for those with limited mobility.
- Explore options for greater consistency within the Fuller/Caroline Brook path system.

Structures and Furnishings

Preserve man-made features that serve as focal points within the landscape.

- Preserve character defining historic structures such as bridges and flumes.
- Use a palette of modern structures and furnishings that are unobtrusive and consistent with the park character.

Action recommendations | Paths

One of the principal problems that exists throughout the length of Fuller Brook Park is the condition of the path system, especially along the main longitudinal route. The surface has deteriorated almost everywhere, and in places, water collects after storms, the edge is undefined and unsightly, and the surface or degree of slope makes the path unsuitable for universal accessibility.

The proposals for treatment of these problems went through an extensive review by the Natural Resources Commission and comments from the public. The final recommendations included here represent an attempt to provide a consensus vision for how to fix what is wrong.

Porous asphalt pavement, installed in Grant's Pass, Oregon.

Rationale for path recommendations

Part of the appeal of Fuller Brook Park is that its character changes as it passes through different sections along its two-and-a-half mile length. Accordingly, the path improvements seek to maintain the individual quality of each section, while enhancing pedestrian and cyclist circulation in the park.

Regarding path width, the existing conditions are largely seen as unacceptable. An eight-foot wide path throughout the park is necessary due to the multi-use nature of the path and will provide adequate, safe and universal access as well as practical maintenance. Accessible routes should also not exceed a rise of 1'-0" over a distance of 20'-0" (5%).

Path recommendations

The treatments described here are depicted on fold out plans at the end of this chapter.

Subsurface. All paths to be reconstructed (outside of the wetland east of the High School and behind the Football Stadium) will be excavated and rebuilt over a 12" gravel subbase, with a 4" perforated pipe subdrain. Where necessary, lateral crushed-stone-filled, subsurface channels, called "blind drains", will convey water from beneath the paths to the nearby lower areas, usually the adjacent streambed.

Surface. All areas outside of the wetland zone will be paved with a course of 3-1/2" depth pervious asphalt. The one exception to the pervious asphalt paving occurs in the short section that runs fro the edge of the wetland to Forest Street.

Wetland zone. The section between Paine Street and Forest Street is mostly occupied by a red maple swamp wetland. To protect the fragile ecosystem in this area, the Master Plan calls for all of the low-lying area to be traversed by a new boardwalk 550' in length and eight feet wide. Between Paine Street and the beginning of the new boardwalk, the existing wood chip surfacing will be renewed and maintained. Between the eastern end of the boardwalk and Forest Street, currently a very narrow dirt track, a transitional 8' path is proposed consisting of compacted stone dust.

Hunnewell Field. Access from State Street past the newly constructed parking lot is planned for modest amount of new pavement to enhance the transition into Hunnewell Field and to protect the streamcourse of Fuller Brook, which is

very close to the edge of the new lot. The path connections behind the stadium and connecting to the Caroline Brook section are not proposed to be reconstructed.

Grading. Wherever feasible, lengths of path that exceed 5% longitudinal grade, should be redesigned for accessibility. Path areas that trap surface water runoff, creating puddling conditions on the path, should be regraded so that their cross-slopes and relation to surrounding topography is such that water no longer accumulates on the path itself.

Action recommendations | vegetation

The action recommendations that relate to treating the vegetation of Fuller Brook Park were prepared by planning team subconsultant, Tree Specialists, Inc., of Holliston, Massachusetts.

These recommendations respond to the visual inventory of the existing conditions of trees, shrubs, flowers and turf within the park. Refer to the charts in the attached "Fuller Brook Park Vegetation Assessment and Treatment Recommendations" for specific recommendations arising out of the condition assessment. Included are:

- trees whose structural condition and overall health merits further attention;
- mature specimen trees that are botanically noteworthy;
- understory tree and shrub masses that contribute or detract from the setting of historic intent;
- invasive plants that pose threats to the park's ecological integrity; and
- maintenance issues that relate to vegetation, such as a lack of visual buffer, encroachment, streambank erosion.

The locations of specimens and areas of vegetation listed on the charts are depicted on the fold-out plans at the end of the chapter. Overall recommendations related to approaching the tasks specified on the charts are set forth below, organized by the seven Guiding Principles of the Master Plan.

A park for the public

As a public resource, the park's functionality depends on proper landscape management. Safety must always be the highest priority in this setting, and cyclical, routine maintenance of the many *mature trees* is essential to manage the risks inherent in large, aged trees. Beginning with a tree risk assessment for selected individuals, a proper maintenance program will include regular removals of high risk trees along with pruning and bracing of key individuals to reduce risk and extend the life span of these important specimens.

- Have an appropriately qualified Arborist perform a thorough treatment plan and risk analysis, and document findings.
- Develop contract specifications (see sample specifications in the accompanying "Fuller Brook Park Vegetation Assessment and Treatment Recommendations") based on existing municipal tree management policy, site-specific goals and objectives, and available resources.
- Appropriate available funds for tree removal, re-planting (including planting of woody and herbaceous understory species) and maintenance operations.

A park of beauty

Sustaining a naturalistic feel in a maintained setting is a common objective in many designed landscapes, both private and public. A management strategy that stabilizes and preserves existing vegetation while promoting and enhancing the growth of new elements will maintain continuity of the overall landscape even as it evolves. For example, thoughtful placement of *new tree plantings* will ensure that when an overmature specimen must be removed for safety reasons, a suitable replacement is already in place. In addition to planting new trees, young native trees at the edge of wooded areas can be identified and managed as future specimens by removing competing vegetation, and adding soil amendments to aid in growth and establishment.

- Identify appropriate locations for new plantings.
- Appropriate funds for installation and after care operations to improve the survival rate.

Managing the soil medium in which the vegetation must grow is another important aspect of a proper maintenance program. Many areas adjacent to the main path exist in a compacted, bare soil condition. In addition to being less aesthetically pleasing, compaction reduces their capacity to absorb the water and oxygen necessary for good root growth. This type of soil condition is also more prone to run-off, increasing silting in the stream. Areas where tree cover is sufficiently dense to prohibit good turf establishment should be mulched and/or planted with native *understory* species. In other areas, particularly at the southern edge of wooded sections, *invasive* shrubs and vines are forming dense masses, encroaching on turf. This vegetation should be removed and the turf re-established.

- Identify areas of compaction and slope based on effects on other landscape elements – i.e. tree decline, run-off, visual degradation, etc.
- Appropriate funds for mulching with recycled wood chips, and for planting operations to establish woody and herbaceous understory species where appropriate.

A park of nature

The importance of Fuller Brook Park as a natural refuge for plants, animals, and people must be recognized. We must also recognize that the park's ability to promote and sustain the growth of native flora and fauna requires our intervention,

perhaps more that at any other time in its history. The proliferation of non-native *invasive* species is rapidly changing the Fuller Brook landscape in some very profound ways. The colonization of Norway Maples, Japanese Knotweed, Bittersweet and Purple Loosestrife must be addressed and a management strategy must be developed to deal with this problem.

- Identify and document a wildlife inventory. Assess vegetation to determine available food sources and utilize data when selecting species for new plantings.
- Develop park policy and species-specific strategy for management of invasives, including removal and replanting with non-invasive species.
- Appropriate funds for a management plan and on-going maintenance guidelines.
- Replace turf grass with "wet meadow" species in areas of chronic dampness.

A park that honors its history.

The evolution of Fuller Brook Park is well described in the cultural landscape report. Throughout all the changes that have occurred to this landscape, as well as the surrounding community, the primary functions of the park remain the same. Individual features such as bridges and mature trees remain as tangible representations of the past, and certainly they merit proper maintenance for functional as well as aesthetic reasons. But the most important feature is the spirit in which this park has been created and maintained. The present lack of regular maintenance violates that spirit, and will itself become part of the history of Fuller Brook Park, as many of the current conditions observed could have long lasting implications for the park's landscape. *Encroachment* from abutters is one phenomenon that violates the historical design intent of the park, i.e. the use formalized plantings and expanded lawn areas that create psychological barriers for park users.

- Enforce Natural Resources Commission policy regarding private encroachment on public lands.
- Inventory instances of encroachment onto Town land.
- Assess damage to historic bridges or other infrastructure as a result of tree/shrub growth—remove vegetation.

A park linked to larger systems

The park's role in the stormwater drainage system of the Town is an important practical aspect of this landscape. To a large extent, the quality of the *streambank* depends on the type of vegetation growing on it. And once again, managing *invasives* becomes a critical part of an effective maintenance program. The riparian nature of Fuller Brook Park brings up another point with respect to invasives. Their seeds spread very easily with the help of the stream and the birds and mammals that travel along this "corridor." By allowing these species to multiply it creates a massive seed source that spreads downstream to Waban Brook and ultimately to the Charles River. This "connectedness" points to a greater responsibility of the Town for the management of Fuller Brook as a more regional resource, and not a traditional, isolated municipal park.

The ability of the stream to function as a drainage channel is also being impeded by the growth of numerous trees within the stream channel itself. Evidence of past sapling removal can be seen in the numerous multi-stem "sprouts" that have grown back, many of which are now quite sizeable. These greatly impede flow and collect debris in times of high water, increasing erosion and creating a risk of flooding.

A park for passive recreation.

As stated in the Cultural Landscape Report, the Fuller Brook Park was conceived as a place for the public to relax, escape the hustle and bustle of modern life, and enjoy the quiet beauty of a natural environment. In terms of the vegetation

required to facilitate these uses, many of the necessary elements are still in place. *Turfgrass* has replaced the hayfields but does offer a welcoming surface. Heavily shaded areas are best managed with plantings of native groundcovers and *understory* plantings. Attempting to maintain thin turf in these areas has led to soil compaction, which is affecting the health of many framework shade trees.

- Assess quality of turfgrass areas and develop management strategy for improving areas where appropriate.
- Consider returning wet turf areas to "rain gardens" and "wet meadow" environments to enhance visual interest wildlife diversity, and protection of wetland resource areas.
- Maintain all areas in accordance with the Natural Resource Commission's Integrated Pest Management and Organic Land Management Policy.

A park which balances conservation, recreation, aesthetics, historic preservation and stormwater management.
Meeting all the varied expectations placed on the Fuller Brook landscape may seem like a difficult, resource-intensive undertaking. There will need to be an initial investment in order to reverse some of the effects of past maintenance deferment, but many of the park's goals can be achieved by basic landscape management principles and practices. By informing the public of the park's needs, the Town can build support for, and an understanding of, the changes that must occur if this important resource is to be stabilized, preserved, and ultimately enhanced for future use and enjoyment.

Action recommendations | Streamcourse

Fuller Brook is a heavily altered waterway that has been and continues to be returning to a more natural ecological state. The Brook has functional and aesthetic problems stemming from the major physical alterations made to it in the 1950s and from several decades of deferred maintenance.

These problems consist primarily of bank erosion and stabilization issues, water channelization, invasive plant infestations and a lack of visual character. These issues are impacting the Brook's ability to treat and convey stormwater, act as a major flood control mechanism, provide viable wildlife habitat and serve as an interesting scenic resource.

Caroline Brook, like Fuller Brook, was heavily altered in the 1950s. Its course was straightened and channel widened. General lack of adequate maintenance, including the removal of large quantities of sediment from the Brook has directly contributed to its functional and aesthetic problems.

Today Caroline Brook suffers from functional and aesthetic problems associated with sedimentation of the stream channel, bank erosion and stabilization issues, invasive plant infestations, a lack of public access and lack of visual character. These issues are impacting Caroline Brook's ability treat and convey stormwater, act as a major flood control mechanism, provide viable wildlife habitat and serve as an interesting scenic resource.

Recommended actions include:

- Stabilize the banks of both brooks;
- Repair and improve stormwater outfalls;
- Dredge accumulated sediment from the length of the watercourse within the Park;
- Remove and manage invasive plants;
- Remove concrete stream channel liners to improve flow and drainage;
- Improve views and access to the Brook where appropriate;
- Construct a boardwalk through the wetland area adjacent to the High School to improve pedestrian access and circulation;
- Educate park users about the brooks via signage and interpretive programs.

Derelict concrete stream channel liners, near Dover Road.

Action recommendations | Stormwater management

The master planning team coordinated with the Wellesley Department of Public Works whose "Stormwater Management Plan Update" project was simultaneously underway. That study's findings regarding culvert maintenance, capital improvement projects and water quality for Fuller and Caroline Brooks within the park complement the master plan.

Selected recommendations of the Stormwater Management Plan Update for Fuller Brook Park are summarized here. Details may be obtained from Wellesley DPW.

- Three maintenance projects within the park were identified (one "medium" and two "low priority"; two erosion repair and one outfall structure repair.)
- Capital project needs within the park include seven "street drainage pipe replacements," addition of new street catchbasins in two locations, and replacement of one undersized drain line.

Policy recommendations | preservation

The recommendations that follow are general suggestions that the Wellesley Natural Resources Commission may wish to pursue as it works to preserve and enhance the quality of its landscapes. Most are not specific to Fuller Brook Park but generally address town-wide issues and other significant landscapes.

National Register Status for Fuller Brook Park

The National Register nomination is currently underway with the concurrence and support of the Massachusetts Historical Commission (MHC). The first step in the process was the preparation of an MHC landscape inventory form and gathering of relevant contextual information. These tasks were completed as part of the Cultural Landscape Report. The MHC has determined that Fuller Brook Park is eligible. The NRC is pursuing National Register listing, in cooperation with the Town's Historical Commission.

Coordination with Historical Commission

Most cultural landscapes have both natural and cultural values and thus fall under the purview of both the Historical Commission and the Natural Resources Commission. Many communities find that interagency coordination is the most effective way to fully address the complex issues facing such resources. The Fuller Brook Master Plan and Cultural Landscape Report provide information that is relevant for both agencies and might be a good place to start such a dialogue. Other communities, such as Harvard, Massachusetts, have used the interagency approach to prepare a Rural Landscape Preservation Plan.

Cultural Landscape Inventory

Wellesley, like most Massachusetts communities, has an Open Space and Recreation Plan that identifies landscapes with significant natural resource or open space values, and includes a limited inventory of landscapes with cultural or historical values. Chapter 2 includes a list of some of Wellesley's most significant and best known cultural landscapes. A more comprehensive study using the methodology of the Department of Conservation and Recreation's Heritage Landscape Inventory Program and the Massachusetts Historical Commission's historic survey procedures should be undertaken to document the landscapes identified in Chapter 2 and to identify others that may have cultural and historical values.

Update National Register Nomination for Town Hall

Town Hall was listed on the National Register in 1976 when standards for documentation were much less rigorous than they are today and generally did not include landscape information. The National Register nomination for Town Hall should be reviewed and updated as necessary to include information about the landscape that is an integral part of Town Hall. The Town might also wish to consider a Cultural Landscape Report and/or Mater Plan for Town Hall Park.

Additional National Register Nominations and/or Historic Districts

A 1990 survey of residential areas in Wellesley recommended eight neighborhoods for nomination to the National Register. The Town may wish to explore whether these recommendations are still applicable.

The Town may also wish to consider additional local historic districts, which many communities find to be an effective preservation planning tool. The Town recently established its first Neighborhood Conservation District (NCD). Approved by Town Meeting in 2008, this NCD will help the Town to preserve 16 properties in the Denton Road area. It is hoped that additional NCDs will be approved in the future.

Policy recommendations | maintenance

Two basic policy recommendations regarding care and maintenance of Fuller Brook Park are neededonce the initial preservation and rehabilitation investment is accomplished. Both of these suggestions are in the realm of "protecting the Town's investment" and ensuring optimum public benefit and environmental protection.

Utility vehicle and porous pavement sweeper for Fuller Brook Park

Many of the recommendations included in this Plan require increased on-going maintenance that will benefit from a "park utility vehicle" dedicated to Fuller Brook Park, capable of transporting small amounts of material for path repair and upkeep, leaf removal, invasive plant removal, tool transport, etc. Such a vehicle could be based at Hunnewell Field, and will reduce the necessity for large trucks to drive in the park. In addtion, it is recommended that the Town purchase a porous pavement vacuum sweeper to care propoerly for the new pavement system.

Dedicated Fuller Brook Park groundskeeper

Because the park stretches for approximately 2-1/2 miles and passes through many different landscape zones, regular maintenance and oversight would be greatly enhanced if one park staff person had daily responsibility for the park, and could become familiar with all of its components, and recognize when remedial work is needed and attend to issues as they come up. The lack of a dedicated staff person in recent decades has contributed to the current need for major capital expenses to rescue the park from its deteriorated state.

Implementation

The recommendations in this plan may be understood as a multi-yeareffort to bring the park back to its glory, serve contemporary needs and set it on a firm foundation for routine maintenance in the future. A brod spectrum of actos should be involved, including volunteers, Town personnel and outside contractors.

The estimated costs for the project are summarized below and presented in detail in Appendix 1.

HARD COSTS	Paths	$ 780,000	
	Invasive vegetation	$ 115,000	
	Tree work	$ 25,000	
	Re-planting	$ 630,000	
	Amenities (benches, interpretive signs)	$ 37,000	
	Wayfinding (granite piers/crossing markers)	$ 24,000	
	Boundary markers	$ 61,000	
	Streamcourse repair	$ 142,000	
	Sub-total Hard Costs	**$ 1,814,000**	
	Contingency	*$ 272,000*	
	TOTAL HARD COSTS		**$ 2,086,000**
SOFT COSTS	Design	$ 178,000	
	Arborist treatment plan	$ 30,000	
	Permitting	$ 85,000	
	Maintenance Guidelines	$ 10,000	
	Topo, utility + boundary survey	$ 75,000	
	Project manager	$ 250,000	
	Clerk-of-the-works	$ 60,000	
	Porous pavement vacuum	$ 75,000	
	Sub-total Soft Costs	**$ 763,000**	
	Contingency	*$ 114,000*	
	TOTAL SOFT COSTS		**$ 877,000**
TOTAL PROJECT COSTS			**$ 2,963,000**

Fuller Brook Preservation Project
Cost estimate

Nov. 17, 2009

Key
lf=linear foot sf=sq.ft. #=number
ls=lump sum cy=cubic yard

Item	unit	quantity	unit cost	cost	cost	notes
Hard Costs						
Paths						
Demolish/dispose of existing bit conc and stone dust path	sy	5025	$5.00	$25,125.00	$25,000.00	
Path-porous asphalt - 8' width	lf	8,744	$48.00	$419,712.00	$420,000.00	3 1/2" depth bit conc, 12" gravel subbase, 4" perf pvc pipe, filter fabric, 6' tilled sides with 1" topsoil added, seeded, continuous erosion control
Path-stone dust - 8' width	lf	300	$24.00	$7,200.00	$7,000.00	4" depth, 8" gravel subbase, 6' tilled sides with 1" topsoil added, seeded, continuous erosion control
Path-wood chip - 8' width	lf	210	$9.00	$1,890.00	$2,000.00	6" depth
Boardwalk - 8' width	sf	4400	$55.00	$242,000.00	$242,000.00	Recycled decking and helical piles
Regrading for univ. access	ls	1	$8,400.00	$8,400.00	$8,000.00	
Tree Protection	ls	1	$6,000.00	$6,000.00	$6,000.00	
Drainage improvements	ls	1	$32,000.00	$32,000.00	$32,000.00	
Hennewell field parking/path imp.	ls	1	$38,000.00	$38,000.00	$38,000.00	Demo/remove portion of existing parking lot; install new pourous asphalt walk
			Subtotal:	**$780,327.00**	**$780,000.00**	
Invasive vegetation						
Norway Maple removal	ac	3.9	$7,200.00	$27,792.00	$28,000.00	Cut, remove and dispose of Norway Maple understory
Norway Maple grubbing	ac	3.9	$3,575.00	$13,942.50	$14,000.00	Grub and dispose of root system
Mature tree removal	ea	52	$450.00	$23,400.00	$23,000.00	15"-30" cal.; grab and dispose of root system
Streambank invasive removal	ac	3.2	$12,000.00	$38,400.00	$38,000.00	Selective removal of shrub/herbacious material; disposal
Wetland invasive removal	ls	1	$12,000.00	$12,000.00	$12,000.00	Hand removal of invasives; 3 person crew, wetland scientist/supervisor; 1 wk @ $1800/day, $2000 follow up monitoring and $1000 disposal costs
			Subtotal:	**$115,534.50**	**$115,000.00**	
Tree Work						
Specimen trees	ls	1	$25,000.00	$25,000.00	$25,000.00	Tree stabilization and risk assessment
			Subtotal:	**$25,000.00**	**$25,000.00**	

Fuller Brook Preservation Project
Cost estimate Nov. 17, 2009

Key
lf=linear foot sf=sq.ft. #=number
ls=lump sum cy=cubic yard

Item	unit	quantity	unit cost	cost	cost	notes
Hard Costs *(continued)*						
Re-planting						
Stream bank	sf	83,407	$1.75	$145,962.25	$146,000.00	Approx 10' each side - native shrub & perennial planting and seed mix
Lawn	sf	8,345	$1.50	$12,517.50	$13,000.00	
Upland riparian zone	sf	17020	$1.75	$29,785.00	$30,000.00	Plant bare soil areas, buffer planting and native understory
Woodland zone	sf	180978	$2.16	$390,912.48	$391,000.00	Flag desirable native species to remain, apply wood chips or install lawn where suitable and add native understory
specimen trees	ea	15	$2,000.00	$30,000.00	$30,000.00	
Topsoil replenishment	cy	510	$40.00	$20,400.00	$20,000.00	
			Subtotal:	**$629,577.23**	**$630,000.00**	
Amenities						
benches	ea	12	$2,500.00	$30,000.00	$30,000.00	Includes brick pad
interpretive signs	ea	6	$1,200.00	$7,200.00	$7,000.00	
			Subtotal:	**$37,200.00**	**$37,000.00**	
Wayfinding						
Granite entry/crossing markers	ea	15	$1,600.00	$24,000.00	$24,000.00	
			Subtotal:	**$24,000.00**	**$24,000.00**	
Boundaries						
Permanent boundary markers	ea	152	$400.00	$60,800.00	$61,000.00	
			Subtotal:	**$60,800.00**	**$61,000.00**	
Stream repair						
Fuller Brook						
Sediment removal + disposal	cy	518	$50.00	$25,900.00	$26,000.00	Includes 185 cy from Fuller Brook and 333 cy from Caroline Brook
Granite/concrete liner removal	ls	1	$20,000.00	$20,000.00	$20,000.00	
Granite/concrete liner disposal	cy	264	$15.00	$3,960.00	$4,000.00	
Granite/concrete liner dump cost	ton	535	$104.00	$55,640.00	$56,000.00	
Grading	ls	1	$10,000.00	$10,000.00	$10,000.00	
Bank stabilization	lf	3275	$8.00	$26,200.00	$26,000.00	Coir fiber logs (roughly $8/ft) plus Additional $1000 for jute netting/erosion control blanket
			Subtotal:	**$141,700.00**	**$142,000.00**	

Fuller Brook Preservation Project
Cost estimate

Nov. 17, 2009

Key
lf=linear foot sf=sq.ft. #=number
ls=lump sum cy=cubic yard

Item	unit	quantity	unit cost	cost	cost	notes
Subtotal - Hard Costs				**$1,814,138.73**	**$1,814,000.00**	
Contingency, 15%				**$272,120.00**	**$272,000.00**	
Total - Hard Costs				**$2,086,258.73**	**$2,086,000.00**	
Soft costs						
park design + services thru const.	ls			$177,790.00	$178,000.00	9.8 % of constr cost
arborist update/treatment plan	ls			$30,000.00	$30,000.00	Update vegetation assessment and treatment recommendation; cost estimate
permitting	ls			$85,000.00	$85,000.00	Conservation Commission, MEPA, Army Corp, Wetland deliniation & Mass Historic
Maint/Mgt Plan + Guidelines	ls			$10,000.00	$10,000.00	
Topo, utility + boundary survey	ls			$74,500.00	$75,000.00	
Project Manager	yr	5	$50,000.00	$250,000.00	$250,000.00	Project manager responsible for RFP preparation, contractor selection, contract review, general project oversight, payment schedule, permitting participation
Clerk of the works	mo	15	$4,000.00	$60,000.00	$60,000.00	Construction oversight
Porous pavement sweeper	ls	1	$75,000.00	$75,000.00	$75,000.00	
			Subtotal:	**$762,290.00**	**$763,000.00**	
Subtotal - Soft Costs				**$762,290.00**	**$763,000.00**	
Contingency, 15%				**$114,340.00**	**$114,000.00**	
Total - Soft Costs				**$876,630.00**	**$877,000.00**	
Grand total				**$2,962,888.73**	**$2,963,000.00**	