

CHAPTER II: EXISTING CONDITIONS AND ANALYSIS

Land Use

The project area includes a variety of land uses including single and multi-family residential, commercial, industrial and open space. The land uses along the river affect the quality of the environment, the potential for increasing access to the river and the local demand for riverfront open space facilities.

Overview

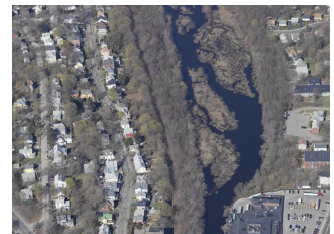
Residential Development

Single family housing is the predominant land use in the project area. Multi-family housing is mainly in the form of two and three family homes. Mattapan Square contains the most significant concentration of family housing with three or more units. Other multi-family housing is located mainly north of the river and west of Mattapan Square. One of the defining characteristics of the project area is the residential development pattern along the river. Homes have been developed on a loose, river oriented street grid. On the north side, homes are oriented towards River Street. On the south side, many homes are oriented towards Brush Hill Road and the scenic Truman Parkway. The plan outlined in this report will link the adjacent residential neighborhoods to the riverfront park system.

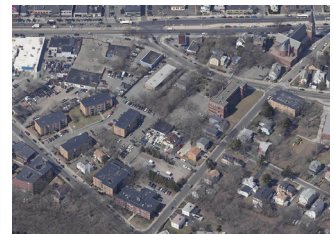
Industrial Development

Most industrial properties in the project area are located in clusters along the north bank of the river, and where the MBTA rail crosses the river. Industrial property is concentrated in three areas: the former Bay State Paper Company property at the intersection of River Street and Wood Avenue, the vacant Lewis Chemical Corporation property near the rail crossing at Fairmount Avenue, and the industrial cluster near the Fairmount MBTA station and the river's confluence with Mother Brook.

The scattered arrangement of industrial facilities along the river makes it difficult to link open space parcels along the river's northern edge for walking trails and other recreational development. The local industrial development pattern not only interrupted the riverside linear open space network, but also created physical barriers to the natural flow of the river. For example, the Tileston & Hollingsworth Dam in Hyde Park and the Walter Baker Dam in Milton present canoeing obstacles and restrict fish passage.



Houses along River Street in Mattapan parallel the river.



Multi-family housing near Mattapan Square



Fishing pier at Stony Brook Reservation

Much of the industrial land along the riverfront is giving way to residential development which may provide opportunities for riverfront access. Specific redevelopment proposals and opportunities are described below.

Commercial Development

Commercial uses are concentrated along the river at the intersections of major roadways; in particular, at the intersection of Cummins Highway, Blue Hills Avenue, Blue Hills Parkway, and River Street (Mattapan Square). Another notable commercial cluster is at the intersection of Eliot Street and Central Avenue south of the river in Milton, as well as at Central Avenue and River Street north of the river in Boston. For the most part, however, most significant commercial nodes in the project area - at Mattapan Square and Central Avenue - are located north of the river. These commercial nodes provide opportunities for bringing people to the river and for providing services to people on the riverfront multi-use trail.

Open Space

There are significant open spaces nearby, including Stony Brook Reservation, the Blue Hills Reservation, and the pristine wetlands of the Fowl Meadow. In addition to these resources, there are numerous urban parks and playgrounds available to area residents, many of which are close to the river.

The project area was divided into three sections for a more detailed land use analysis: Paul's Bridge to Fairmount Station, Fairmount Station to Mattapan Square and Mattapan Square to Central Avenue. Land use in the three sections is described below.

Paul's Bridge to Fairmount Station

Residential concentration

Housing is the dominant land use in this section. Of note is a significant concentration of single family homes on the south side of the river in Hyde Park. The largest concentration is made up of approximately 300 contiguous acres of single family residential lots. A number of single and multi-family homes are situated along the river's edge.

Open Space

At the northern boundary of this residential area is a sizeable cluster of open spaces – the Moynihan Playground and the Martini Shell lawn – linking the residential neighborhood to the river. These parks serve as community focal points.

The Fowl Meadow Reservation, located near Paul's Bridge, one of the most distinctive open spaces in the area, is connected to the Neponset River Reservation by Paul's Bridge, and is an important link in the regional open space system. It is an Area of Critical Environmental Concern. Areas of Critical Environmental Concern (ACECs), designated by the Massachusetts Secretary of Environmental Affairs, are places that receive special recognition because of the quality, uniqueness and significance of their natural and cultural resources. Other important parts of this section's network include the Mother Brook Reservation and the Boston park system's Reservation Road Park.

Commercial Concentrations

Most of the significant commercial activity is located north of the river in Hyde Park near the Fairmount commuter rail station. This predominantly automobile-oriented commercial center extends south over the river onto Truman Parkway. One of the only other sizeable commercial developments on the south side of the river is the Stop & Shop grocery store, located on property that abuts the river, across from the intersection of Truman Parkway and Wakefield Avenue. The parking lot, developed to the edge of the riverbank, provides a physical obstacle in developing a continuous multiuse trail along the river edge. In fact, much of the commercial development in this area is on riverfront parcels, which significantly limits new river access and opportunities for an unbroken linear network of open space and trails, but could provide partnership opportunities for mutual enhancement.

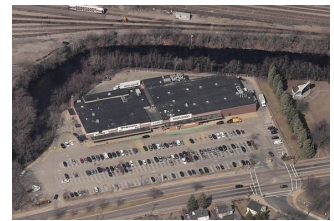
Railroad Facilities

In addition to a broad commercial and industrial base, the area from Paul's Bridge to Fairmount Station has an extensive rail network. Freight, intercity, and commuter rail lines converge near the intersection of Sprague and West Milton Streets (outside of the project area). The MBTA's commuter rail line, with a station at Fairmount Avenue, crosses the river twice: near both the Martini Shell and the Lewis Chemical property. The rail crossings create obstacles to the development of a continuous riverfront path, as access across the rail tracks is prohibited.

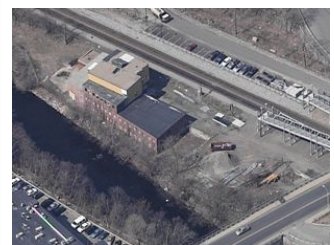
Development/Enhancement Opportunities

There are several key parcels that provide opportunities for enhancing riverfront access and recreation. These include both existing open space parcels as well as potential redevelopment parcels.

- The former **Lewis Chemical** property, a brownfield owned by the City of Boston's Department of Neighborhood Development, is located on the north edge of the river at the rail crossing at



Aerial view of Stop and Shop, with the Neponset River in the background and Truman Parkway in the foreground.



Aerial view of the former Lewis Chemical Property



The Martini Shell is a prominent feature along this stretch of the river



Aerial view (facing north) of the Mattapan Square commercial district, with the Neponset River in the foreground

Fairmount Avenue. The City is currently conducting a study to determine site clean-up requirements and the potential reuse of the site; future development of the site should include public access to the riverfront.

- The mandated clean-up of the riverbank at the **James G. Grant Company** on the north side of the river, and potential redevelopment of the **Stop and Shop** parcel on the south bank also provide opportunities for riverside amenities (see Chapter III).
- Recommendations for improvements to riverfront open spaces, including the Martini Shell Park, the small urban wild at the confluence of the Neponset River and Mother Brook, and the Paul's Bridge area, are discussed in Chapter III.

Fairmount Station to Mattapan Square

Residential Concentration

Residential uses dominate most of the area, particularly on the south side of the river, where development is characterized by meandering streets and larger lots that provide more private green space. Few streets provide through access to the river from the south, limiting potential pedestrian and bicycle connections to surrounding community facilities and open spaces. Residential density increases east of Blue Hill Avenue and Blue Hills Parkway, the single family residences are at a higher density.

Commercial Development

The most significant commercial cluster in the entire project area is Mattapan Square at the intersection of Blue Hill Avenue, Blue Hills Parkway, Cummins Highway and River Street. Mattapan Square mainly consists of small retail shops, banks, law firms and restaurants. The Square, unlike other commercial clusters centered on the river in the project area (at Central and Fairmount Avenues), does not extend to the south side of the river. Although the Square attracts many people, and provides an opportunity to bring people to the river, the River is hidden from view and is not a visual or physical amenity for the Square. Potential river access improvements in the Mattapan Square area will be examined as part of the Special Study Area described in Chapter III. The City of Boston recently completed the Mattapan Economic Development Initiative, a strategic initiative for the revitalization of Mattapan's commercial districts and surrounding neighborhoods. "Creating a more visible gateway at the Mattapan-Milton line, and a stronger link to Neponset River Greenway" is one of the study's recommended action steps.

Rail

The MBTA commuter rail line crosses the river for a third time at the former Bay State Paper Company property and continues straight as the river bends southward into Mattapan Square. As

the rail line traverses the north side of the river, it crosses River Street and Cummins Highway. The MBTA high speed trolley line terminal station at Mattapan Square creates a large barrier between the Square and DCR's riverfront property.

Open Space

The most significant open space in this area is DCR's riverfront property which provides significant recreational development opportunities. The linear open space network along the river in this area is the most complete of any section of the project area and connects important river access points and parks including Doyle and Kennedy Playgrounds on the north side of the river and the Truman Parkway Field Office on the south side of the river. Truman Parkway is the eastern boundary of the Neponset River Reservation.

Development/Enhancement Opportunities

There are several key parcels that provide opportunities for enhancing riverfront access and recreation. These include both existing open space parcels as well as potential redevelopment parcels.

- The former Bay State Paper Company property, located on both sides of the river, is the largest industrial property in the project area. It is the longest continuously operating paper manufacturing site in the nation (*Boston Historical Society, 2000*). The parcel is a significant redevelopment opportunity and residential development has been proposed for both the Boston and the Milton sides of the river. (In Milton, the proposed development is called Milton Falls.)The property is located on an attractive bend in the river, but blocks visual access to the river. The Tileston & Hollingsworth Dam which connects the Bay State Paper Company parcels on the north and south banks is the subject of study by the Massachusetts Riverways Program (see Chapter III).

There are several DCR park facilities in this section of the river; existing conditions and proposed improvements are described in Chapter III:

- Doyle Playground (there are currently no play facilities at this site) is across from a fairly dense residential neighborhood on River Street.
- Kennedy Playground is located in Mattapan on the northern edge of the river less than a quarter mile from Mattapan Square. Because of its close proximity to Mattapan Square, residential areas, other open spaces and the river, it is a key park in the project area and would benefit from rehabilitation. Significant community planning efforts in this area in the 1990s. resulted in the development of the City Natives Nursery and community gardens on the site, a conceptual plan for future park improvements, and acquisition of additional riverfront land by DCR.



DCR property around the Truman Parkway Field Office is part of the linear open space along the Neponset River



Aerial view of the former Bay State Paper Company property spanning the Neponset River at the Tileston and Hollingsworth Dam



Residential development along
Eliot Street (top) and River Street
(bottom)



View of a portion of the Central
Avenue commercial district in
Milton

- The large Truman Parkway Field Office parcel provides an important link between the downstream portion of the project area and Mattapan Square.

Mattapan Square to Central Avenue

Residential Concentration

There is a broad range of housing types in this area, including single family, multi-family, and senior residences. The majority of multi-family housing in the project area exists on the north side of the river in Mattapan. On the south side of the river in Milton, housing consists mainly of single family homes.

Residential development in this area is on major streets that parallel the river, such as River Street in Boston and Eliot Street in Milton. Many local streets branch off from these major roadways and provide potential access to river. On the south side, the MBTA rail right of way is the northern boundary of residential development. The only residential street to cross the trolley tracks is Capen Street, which extends out to a significant bend in the Neponset River near Mattapan Square.

Open Space

Public open space borders significant portions of both the north and south sides of the river in this area. Most of the open space is owned by DCR and links the Central Avenue commercial district and MBTA station with Mattapan Square.

The Francis R. Ryan Playground in Boston and the Eliot Playground in Milton are the two largest public parks in the area. Both are located in fairly dense residential neighborhoods and are well-used and in generally good condition.

Rail

The MBTA Red Line Extension from Ashmont Station follows the south side of the river and provides transit service to four stations in this area: Mattapan Square (terminal station), Capen Street, Valley Road, and Central Avenue. The four stations are located within one-quarter mile of each other. All of the stations, except the Capen Street Station, are located within 40 to 100 feet of the river. These stations provide regional access to the reservation.

Commercial Concentration

The commercial developments surrounding Mattapan Square (described above) and Central Avenue are the largest commercial concentrations in the project area. The Central Avenue

commercial area on the Boston side of the river includes Riverway Plaza, a large strip mall at the corner of Central Avenue and River Street, that extends to the edge of the riverbank. South of the Neponset River, in Milton, is a more traditional, mixed use, and pedestrian oriented commercial district.

Redevelopment/Enhancement Opportunities

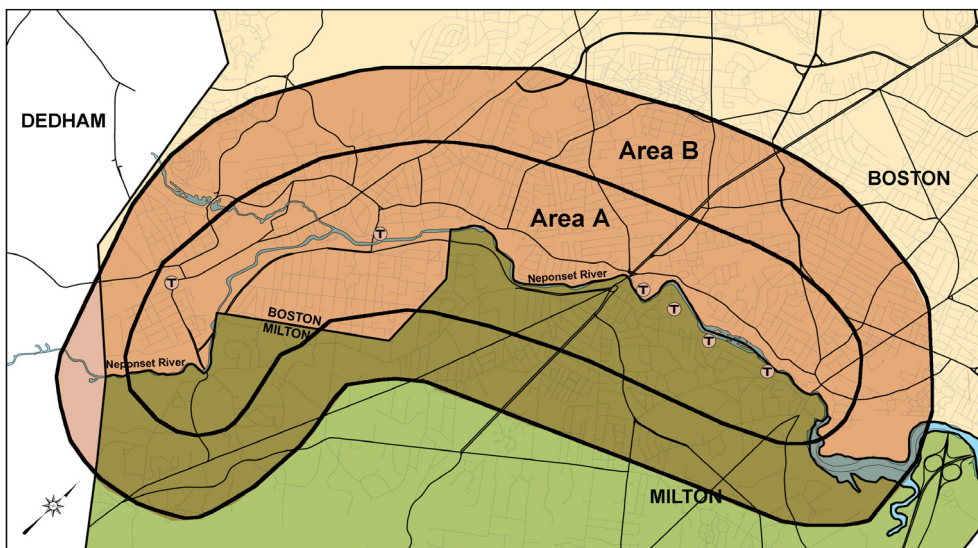
Parcels that provide opportunities for enhancing riverfront access and recreation include:

- **Ryan Playground** - Development of a multi-use trail along the riverfront and improvements at Ryan Playground would provide increased enjoyment of the river.
- **Riverway Plaza** - A cantilevered boardwalk on the back of the Riverway Plaza parcel would be required to provide riverfront access and a continuous trail on the north side of the river at Central Avenue (see Chapter III). Alternatively, should a restaurant be developed in the building, a deck on the back of the building would provide river views for patrons. Redevelopment of this site offers public/private partnership opportunities.



Aerial view of Riverway Plaza at Central Avenue with River Street in the foreground and the Neponset River in the background

Demographic Profile



Methodology

The demographic data presented in the following profile was obtained from the 2000 U.S. decennial census provided by the U.S. Census Bureau. Data was collected by block group, which allows for a site specific demographic analysis. The following areas were included in the analysis:

- Area A: All area within approximately a **half mile** of the Neponset River between Paul's Bridge and Central Avenue (includes block groups completely within or partially within a half mile of the river).
- Area B: All area within approximately **one mile** of the Neponset River between Paul's Bridge and Central Avenue (block groups completely within or partially within one half to one mile of the river). Area B includes all of the land within Area A.

Area A represents the area within easy walking distance of the river; the riverfront resources are further from, but still easily accessible to, residents of Area B. The Neponset River Reservation is a regional resource, and will attract visitors from the larger metropolitan area, as well as from Areas A and B.

Population

Boston residents make up approximately 80 percent of the population in both Areas A and B. Within both Boston and Milton, population density is higher closer to the river; over 60 percent of the total population studied lives within Area A. This disparity is greater in Milton than in Boston.

Population density is 17 persons per acre in Area A and 12 persons per acre in Area B. Area A is slightly less densely developed than the average for the City of Boston (19 persons per acre), but significantly more densely developed than the Town of Milton (3.12 persons per acre) and the state (1.27 persons per acre). This high density residential development increases the need for access to the reservation resources as less other land in the immediate area is available for public open space or private yards.

Race

The population in Area A and Area B is racially diverse. Both areas contain a significant percentage of non-white residents (57 and 60 percent, respectively) when compared with the City of Boston (46 percent), Town of Milton (14 percent), and the State (15 percent).

Age

Both areas A and B have a higher percentage of residents under the age of 18 (26.6% and 27.5%, respectively) than either the City of Boston (19.7%), the Town of Milton (25.90%) or the State (23.6%). The large number of children within the project area increases the need for family-oriented recreational resources, including playgrounds, playing fields, passive recreation areas and multi-use trails.

Residents aged 65 and over make up approximately 12 percent of the population in both Area A and Area B. This percentage slightly exceeds the City of Boston (10 percent), however is lower than the Town of Milton (16 percent) and the State (14 percent).

Household Income

The percentage of the population under the poverty level is higher in the project area (10.4% in Area A; 12.3% in Area B) than for the state (9.3%) or the Town of Milton (2.8%), although significantly lower than for the City of Boston (19.5%). Despite the significant percentage of low earning households in Area A and Area B, the median household income remains above Boston's (\$39,629), and the State's (\$50,502). The median household income is \$60,663 in Area A and \$61,721 in Area B. These numbers are skewed by the high median income in the Town of Milton. The median income for just the Boston portion of Area A is \$43,307; for Area B it is \$41,288. The Town of Milton's median household income is significantly higher at \$78,985. Lower income populations are more dependent on local open space resources because of their limited access to more distant resources.

Access

Roadway Access

The Neponset River Reservation study area is the dividing line between the Mattapan/Hyde Park sections of the City of Boston to the north of the Reservation and the Town of Milton to the south of the Reservation. There are only four major north/south streets that cross the Neponset River Reservation within the study area: Central Avenue, the easternmost study boundary; Blue Hill Avenue; Fairmount Avenue; and the Neponset Valley Parkway, the westernmost study boundary. These four streets divide the study area into three segments each about one mile in length. These widely separated streets increase the need for development of additional pedestrian crossings.

Cross Streets

Blue Hill Avenue (Route 138) and Neponset Valley Parkway are considered major arterial streets while Central Avenue and Fairmount Avenue are minor arterials providing local accessibility. The *Eastern Massachusetts Bicycle Map* identifies Blue Hill Avenue as a "secondary bicycle route on roadway" due to its relatively high volumes (approximately 24,000 vehicles per day-vpd). Neponset Valley Parkway is identified as a "recommended bicycle route on roadway" and is part of the Claire Saltonstall Bikeway route (Boston to Cape Cod). Traffic volumes on Neponset Valley Parkway are about 10,000 vehicles per day.



Intersection of River Street, Brush Hill Road and Blue Hill Avenue in Mattapan Square



Truman Parkway

Central Avenue is a local street that connects River Street in Boston's Lower Mills area to Brook Road in Milton and Route 28. Fairmount Avenue is a local street that connects River Street, Cleary Square, and Washington Street across the commuter rail cut to Truman Highway and Milton.

Other Streets

The eastern section (Central Avenue to Blue Hill Avenue) is bordered by River Street in Mattapan on the north and by Eliot Street in Milton on the south. Although neither street directly abuts the Reservation, the river or parts of the bank are occasionally visible from both roads. Direct access to the river is limited to a few select locations.

The middle section (Blue Hill Avenue to Fairmount Avenue) is bordered by River Street in Boston (Hyde Park) on the north and by Truman Parkway in Milton to the south. River Street (approximately 10,000 vehicles per day) is generally some distance away from the Reservation and provides access only by using local streets leading to the river. Truman Parkway directly abuts the Reservation with little building development between Truman Parkway and the river. Truman Parkway is under the jurisdiction of the Department of Conservation and Recreation and is laid out like a parkway with a center landscaped median and two travel lanes in each direction. It carries about 14,000 vehicles per day.

The southern section (Fairmount Avenue to Paul's Bridge) is bordered by a short portion of River Street and then Hyde Park Avenue in Boston (Hyde Park) to the west and again by Truman Parkway in Boston to the east. Hyde Park Avenue is located a fair distance from the Reservation and does not provide direct access to the river except via local connecting streets, while Truman Parkway provides direct access to riverfront parcels.

Transit Access

The eastern section of the Reservation runs alongside the MBTA's Mattapan high-speed trolley line. The high-speed trolley connects to the MBTA Red Line at Ashmont Station and terminates at Mattapan Square. There are four stops within this portion of the study area: Central Avenue, Valley Road, Capen, and Mattapan Square. The MBTA commuter rail Fairmount Station is on the north side of the Reservation and the Readville Station is just west of the reservation.

Bus service is well provided with bus connections at Central Avenue, seven bus routes terminating at Mattapan Square, and bus routes on all east-west roadways bordering the Reservation except Eliot Street whose transit access is the high-speed trolley line. All but three of the bus routes run seven days a week, providing good access to the Reservation during high-use weekend periods. The MBTA has begun to install bike racks on its buses and may eventually



The Mattapan High Speed Line terminus in Mattapan Square

have its entire fleet equipped with racks. Bike racks on buses would further enhance accessibility to the Reservation.

Parking

The Reservation does not provide any significant parking (a total of 76 spaces). At Paul's Bridge, there is parking for approximately 10 cars. Francis A. Ryan Playground has 9 spaces and the Martini Shell has 44 spaces. The Truman Parkway Field Office has approximately 13 spaces in the parking lot; although approximately 18 cars can park alongside the driveway, parking in this area restricts circulation through the site. There are about 33 parking spaces at Fairmount Station (\$2.00 per day) and about 200 spaces at Mattapan Station (\$2.50 per day). Although these parking spaces are generally full at peak times, they are available on weekends and some holidays.

Views

Existing views to the river are very limited throughout the project area, with the exception of bridge crossings and a few locations along River Street and Truman Parkway. Although there is no development along much of Truman Parkway, views to the river are obstructed by vegetation, fencing and the difference in elevation between the roadway and the river. Throughout much of the rest of the project area, the roads adjacent to the Reservation (for example, River Street and Eliot Street) are developed, with buildings blocking views to the river. Some additional views can be opened by clearing vegetation in strategic locations (see Chapter III, p. 28).

Natural Resources

The natural resources of the Neponset River Reservation have been shaped by historic development, flood control and acquisition as public parkland. The Reservation now consists of disconnected linear parcels along the north and south banks of the Neponset River.

The first mill, a grist mill, was built near the current Walter Baker Dam in 1635. Since that time, mills and associated dams have influenced the character of the natural resources of the Neponset River. A dam that existed just upstream of the Central Avenue bridge trapped silt creating the "Rice Islands", a mosaic of emergent marshes. These islands provide a unique habitat along the Neponset River as other emergent wetlands were filled as a part of subsequent flood control projects. The presence of dams along the river has also isolated traditional spawning habitat for anadromous fish species such as river herring and shad. These fish live in the ocean, but migrate annually to freshwater stream and ponds to spawn each spring. The presence of the Walter Baker and Tileston & Hollingsworth dams restricts upstream migration of these species presently.



View upstream from Paul's Bridge



View upstream from Fairmount Avenue Bridge



Views of the river from Truman Parkway are obscured by vegetation



View upstream from pedestrian bridge at Glenwood Avenue



View upstream from Central Avenue Bridge

During a 1955 Hurricane (Diane), widespread flooding occurred along the Neponset as a result of outmoded dams and other obstructions within the river. In response to the damaging flooding, the state legislature passed a two million dollar bond bill in September, 1956, authorizing a major overhaul of the Neponset between the Fowl Meadow and Baker Dam. Some dams were removed, others were rebuilt, and the river channel was deepened, armored, and otherwise altered so as to ensure that a flood 50% greater than that spawned by Diane would be contained within the banks.

The founders of the Metropolitan Park System, Charles Eliot and Sylvester Baxter, stressed the importance of protecting open space along three rivers (Charles, Mystic and Neponset) that flow into Boston Harbor. By the end of 1900 a total of nine thousand acres had been acquired in thirteen reservations, including the Neponset River Reservation, and the nine constructed parkways included an additional six hundred acres. They understood that natural areas along river corridors help to keep water clean, make ideal habitats for fish and wildlife, and are sought after by those seeking rest and recreation. The parks in the Neponset River Reservation are linked by a river greenway, linear parkland and a parkway which expands its potential access and diversity of use.

Following Charles Eliot's vision, the Metropolitan Park Commission began in 1899 to acquire properties along the river to establish the Neponset River Reservation. But, while the Neponset River declined from the turn of the century to recent times, afflicted by water pollution, over-fishing, industrialization, dredging and subsequent dumping of dredge spoils, and fencing, it remained the only one of the three major rivers within the park system not dammed at its mouth. Since the 1970s, renewed efforts have expanded and improved the Neponset River Reservation. A series of acquisitions, beginning with the Troy Landfill (now Victory Road Park) and including:

- the former Shaffer Paper and Flounder Fishing sites at Port Norfolk
- the former CONRAIL right-of-way
- Squantum Point
- the former Hallet Street dump and Neponset Drive-In sites (now known as Pope John Paul II Park)
- the T-Equipment, Schlager Auto Body and JSax sites (now know as Neponset Park)

have both expanded park ownership and connected existing and planned park sites within the reservation.

The *Master Plan for the Lower Neponset River* was completed in 1996 to preserve and enhance the lower Neponset River and its environs. The *Neponset River Master Plan Phase II* will build upon this plan and improve public access, link existing and new park lands, and enhance wildlife habitat.

Table N-1 lists the notable environmental areas along the Neponset River Reservation.

Table1: Notable Natural Resources within the Neponset River Study Area

Name	Location	Additional Information
Rice Islands	Upstream of Central Avenue Bridge	Emergent wetland habitat
Ryan Playground Woodlands	Downstream from Mattapan Square	Corridor of forestland along the river
Truman Parkway Woodlands	Milton side of river upstream of Mattapan Square	Corridor of forestland along the river
Tileston Hollingsworth Dam	Downstream of the Fairmont Avenue Bridge where railroad tracks cross the river	One of two dams present along the river
Railroad Track Woodlands	Segment upstream of the Tileston-Hollingsworth Dam where railroad tracks isolate a section of forestland	Forestland along the river with limited access due to the presence of the railroad tracks
Mother Brook Confluence	Upstream of Dana Avenue	Undeveloped woods
Paul's Bridge Swamp	Upstream of Paul's Bridge	Wooded wetland

Wetlands

One of the most interesting vegetation features along the river is a natural wild rice stand between Mattapan and Eliot Street (on the Milton side). The emergent marshes, called the "Rice Islands", are located where the river opens up slightly resulting in a wider view at its mouth. The "Rice Islands" are bounded by mixed development including residential and commercial, but still continue to support wildlife. From Ryan Playground to the Riverway Plaza shopping center, a distance of third of a mile, the channel nearly doubles in width, reaching over 300 feet at its widest. The elongated basin was dug out sometime prior to 1888 (it appears on a map from that date), most likely to provide additional water for the Jenkins Dam, which spanned the channel near the spot where the river narrows again beside the shopping center. The original Metropolitan Park Commission takings maps from 1900 show a large building on the site of Riverway Plaza called the Tileston & Hollingsworth Mill, and the 12 foot dam was attached to it, storing water for



Historic images of the Jenkins Dam prior to removal. Top photo shows flood damage.

an inlet that ran under the mill. The Jenkins Dam was badly damaged by the historic peak flood associated with Hurricane Diane in 1955. It was removed soon afterward, emptying the reservoir, and exposing all the sediments it had collected behind it. These sediments occupied a much wider corridor than the river could scour, and so it carved a channel through them, resulting in the existing “Rice Islands”. Today, about 60% of the former 12-acre reservoir is occupied by these grassy islands, while the braided river channel flows through the rest. Dominant vegetation on the islands includes reed canary grass, and purple loosestrife along the fringes.

Forestland

The species composition of the forests bordering the Neponset River differs markedly from that of typical forests of southern New England. In any acre of natural forest in this region, oaks are the dominant tree; whereas along the Neponset, oaks are small and scattered on the dredge fill from the 1990s. and nowhere dominate. In their place are species that usually play minor roles in our forested uplands but are typical of urban volunteer growth - black cherry, black locust, elm, buckthorn, red ash, and Norway maple. These trees are present nearly everywhere atop the filled banks that characterize much of the area. Where the forests form a dense canopy, individual trees range between 30 and 60 feet in height. There are a few places, however, where big oaks occur – primarily at the extreme rear of the fill platforms, or on portions of the riverbank where bedrock outcrops exist. Many of these oaks are two feet or more in diameter, and are significantly bigger and older than any of the trees growing on the fill. Although the fill-platform woods are easily distinguishable from the oak stands that persist on the unfilled areas, they are not uniform. In some places, particularly on the Milton side, repeated fires have prevented trees from coming in at all. In addition, the character of the fill varies and the woods reflect this variation. In the upper third of the corridor, for instance, where the river runs swiftly, most of the spoil material pulled from the channel was sandy, creating a well drained soil favored by black locust and black cherry. Below Capen Street in Milton, the fill has a much higher percentage of silt, and species preferring wetter soils tend to replace the locust and the cherry, primarily elm, Norway maple, and glossy buckthorn. In addition, dominant understory vegetation includes multiflora rose, and garlic mustard, both of which are common throughout the corridor.

Cultural Resources

Neponset River History

The name “Neponset” means “Harvest River.” Native Americans first used the Neponset River for fishing and as a fur trading route with the new settlers that were arriving. These activities continued along the river well into the 17th century. The Neponset River played an important role in the

development and economic growth of Milton and Boston, but was an early obstacle to the settlers.

"Initially it was something of a nuisance, the first important obstacle to travel on the Plymouth path, and it was large enough, particularly in freshet time, to make its crossing a serious matter. It was such a barrier that it became the southern limit of the Bay Colony for several years and it was only after the first bridge was built that any settlements were made on the farther shore" (Hamilton 1957).

One of the most important characteristics of the river was its size, not too big and not too small. This provided settlers with the opportunity to harness the power of the river without having to construct large dams. Mechanization slowly changed the towns along the river and changed the purpose of the river. Slowly the trade routes along the river gave way to small industrial mills. Mills were constructed along its banks and fish, particularly Alewife, were collected in weirs and sold at market price.

The original Mother Brook drained from Dedham into the Neponset River. It was lengthened by the early settlers of Dedham, beginning in 1639, to connect to the Charles River and thus to provide increased water flow. This enabled the settlers to construct and operate mills, beginning with a corn mill in the early 1640s. Dams and mills were constructed at five locations called "privileges" in Dedham and in what is now the Readville section of Boston (originally part of Dedham). The man-made extension of Mother Brook is regarded as the first industrial canal in North America.

Saw mills were constructed along the river. Eventually every town along the river had at least one and often several sawmills.

Throughout the years a number of dams were constructed along the river in various locations for the purpose of harnessing the river's power to operate the mills. "During the time period of the Revolution, Neponset Village was a major industrial center" (Hamilton 1957). A dam called the upper dam was constructed just upstream from Plymouth Road and the lower dam was located just below the bridge. About this same time, the dam in Mattapan was flourishing with a mill and a second dam called the Sumner Dam was constructed a little upstream from where Brush Hill Road swings away from the Neponset. "In 1793 Jeremiah Smith Boies, grandson of Jeremiah Smith, built a new dam about halfway between Mattapan and Central Avenue, while Daniel Vose and John Capen built another a sort distance below it. A bitter lawsuit resulted. Boies moved his dam upstream a little to a point opposite the end of today's Capen Street..." (Hamilton 1957).



The Baker Chocolate Factory in 1965 (top) and today (bottom)

During the 18th century, ship building and commercial shipping were the major industry along the Neponset River. The first chocolate mill in the United States, Baker Chocolate, was established along the river in 1765 by Dr. James Baker and John Hannon. George Clark built a paper mill at the site of Trescott's lumber mill. This paper mill later became the Tileston and Hollingsworth Paper Mill in 1836. The Tileston and Hollingsworth dam still exists today. At one point four separate chocolate mills had opened at the Lower Mills: the Baker Chocolate in 1765, Preston's Chocolate in 1768, Ware's Chocolate in 1840, and Webb Chocolate (formerly Webb and Twombly Chocolate) in 1843. By 1881 all of the companies were absorbed into the Walter Baker Chocolate Company.

Railroads were introduced in the area in the 19th century. In 1826, the first railroad in America operated along the Neponset River. Throughout the 1800s railroads expanded along the Neponset River and by 1848, river traffic and shipbuilding had ceased.

In 1965, major industrial activity along the lower section of the Neponset River stopped when the last major industrial facility relocated. Since that time industrial land has slowly been converted into residential and/or commercial uses, a trend that continues today.

Historic Properties

The Neponset River Reservation study area includes multiple historic properties listed in the State and National Registers of Historic Places and properties included in the Inventory of Historic and Archaeological Assets of the Commonwealth. These properties are located in both Boston and Milton.



Cultural resources within and in the vicinity of the Neponset River Reservation Study Area (numbers and letters refer to the table on the following page - small numbers refer to individual resources, larger numbers refer to areas)

Cultural Resources within and in the vicinity of the Neponset River Study Area

Map #	Name	Address	Designation
A	Dorchester-Milton Lower Mills District	Adams Street/Neponset River (includes Adam Street Bridge over Neponset River), Boston and Milton	National Register District
B	Milton Hill District	Off Adams Street, Milton	National Register District
C	Boston Sanitorium	River Street, Boston	National Register District
D	Blue Hills Parkway	Mattapan Bridge to Unquity Road (includes Mattapan Bridge over Neponset River), Boston	National Register District (TRA)
E	Truman Parkway	Brush Hill Road to Neponset Valley Parkway, Boston and Milton	National Register District (TRA)
F	Neponset Valley Parkway	River Street to Paul's Bridge, Boston	National Register District (TRA)
G	Paul's Bridge	Neponset Valley Parkway over Neponset River, Boston and Milton	National Register
1	Neponset River Area	River Street to center line of Neponset River from Central Avenue to Mattapan Square, Boston	Inventory
2	#171 Adams Street Bridge over MBTA	Adams Street near Milton Station, Milton	Inventory
3	#170 Neponset RR Bridge	Milton Station over Neponset River, Milton	Inventory
4	Milton Village MBTA Station	Adams Street, Milton	Inventory
5	Central Ave. MBTA Station	Central Avenue near Eliot Street, Milton	Inventory
6	Valley Road MBTA Station	Eliot and Valley Roads, Milton	Inventory
7	Capen Street MBTA Station	Capen Street, Milton	Inventory
8	Eliot Street Area	145-147, 167-173, 210, 221, 305, 309, 313-314, 320-322, 457, 496, 500, 506, 510, 514, 520, 524, 542, 546-548, 566, 563, 570, 584 Eliot Street, Milton	Inventory
9	Columbine Rocks Area	5, 10, 15, 18, 28, 57, 62, 90 Cliff Road; 2, 5 Norway Road, Milton	Inventory
10	James Boies House	22 Curtis Street, Milton	Inventory
11	Mattapan Square Area	Blue Hill Avenue and River Street, Boston	Inventory

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12	Briarfield Area	Blue Hills Parkway, Eliot Street, Hinkley Road, Ridge Road, Brook Road, Milton	Inventory
13	Neponset River Railroad Bridge Milepost 7.07	Conrail over Neponset River, Boston	Inventory
14	Bay State Paper Co.	River Street, Boston and Milton	Inventory
15	Neponset River Railroad Bridge Milepost 7.54	Conrail over Neponset River, Boston	Inventory
16	John Pierce House	52 Pierce Street, Boston	Inventory
17	R.H. Stackoe House	115 Pierce Street, Boston	Inventory
18	West Street over MBTA	West Street, Boston	Inventory
19	Fairmount Avenue over Neponset River	Fairmount Avenue, Boston	Inventory
20	Fairmount Ave. over Conrail	Fairmount Avenue, Boston	Inventory
21	Cleary Square/Mt. Neponset Area	6, 14, 17, 18, 22-25 Pine Street, 2, 25, 48, 65, 66, 70, 92 Maple St, 2-20, 41-49 Fairmount Avenue, 22 Oak Street, Boston	Inventory
22	Readville Area	River St., Truman Hwy., Neponset River, Railroad ROW, Milton-Boston line, Milton St. and Neponset Valley Parkway, Boston	Inventory
23	Dana Avenue over Neponset River	Dana Avenue, Boston	Inventory
24	Dana Ave. over PC Railroad	Dana Avenue, Boston	Inventory
25	Glenwood Ave. Footbridge	Glenwood Avenue, Boston	Inventory
26	Neponset River Railroad Bridge Milepost 8.57	Conrail over Neponset River, Boston	Inventory

In several instances, these listed and inventoried properties are located within the boundaries of or traverse the Neponset River Reservation (NRR), as shown in the figure below and the table on the following page. Several other listed and inventoried properties are located in the immediate vicinity of the NRR.

Archaeological Resources

A review of the State and National Registers of Historic Places and the Inventory of Historic and Archaeological Resources indicates multiple historic and pre-historic archaeological sites are located within and in the immediate vicinity of the Neponset River Reservation. Previously unidentified archaeological resources may be present within the Reservation. The location of previously identified archaeological resources is privileged information and is not included in this Master Plan.

Recommendations

Recommendations include the consideration of historic properties (including structures, bridges, roadways, etc.) and archaeological resources within the Reservation area. DCR Cultural Resources Staff should coordinate review of proposed projects within the Reservation area with the MA State Archaeologist to determine if archaeological resources are present within Reservation project areas. Effects to historic properties listed in the State and National Registers and included in the Inventory should be identified and appropriate coordination with the Massachusetts Historical Commission is recommended.

Dams and Bridges

Although historically there have been more dams within the project area, the Tileston and Hollingsworth dam at the former Bay State Paper Company parcel is the only one remaining. An ongoing study of this dam by the Massachusetts Riverways Program is described in detail in Chapter III.

Five railroad bridges, six road bridges and two pedestrian bridges cross the river. The crossings are much more frequent on the upstream (southwestern) half of the project area, with only three of the thirteen bridges occurring on the downstream half.

The railroad bridges frequently interrupt the potential for a continuous multi-use path along the river corridor. The roadway bridges, however, provide opportunities for connecting trails and destinations to neighborhoods on both sides of the river, and as described above, provide beautiful views up and down the river. Roadway bridges occur at:

- Central Avenue (the eastern [downstream] boundary of the project area)
- Blue Hill Avenue in Mattapan Square
- Fairmount Avenue



View of the Tileston and Hollingsworth Dam



Glenwood Avenue pedestrian bridge



View of an MBTA railroad bridge with Dana Avenue Bridge in the background

- Dana Avenue
- Truman Parkway
- Neponset Valley Parkway (Paul's Bridge - the southern [upstream] boundary of the project area)

The pedestrian bridge at Glenwood Avenue provides a link both across the river and across the railroad tracks, connecting residents on the west side of the river with Truman Parkway. The bridge does not meet ADA requirements and is in a state of disrepair, although it is usable. The pedestrian bridge at B Street links mixed residential/industrial districts on both sides of the river. This bridge is less well used because of its location in a more industrial area.