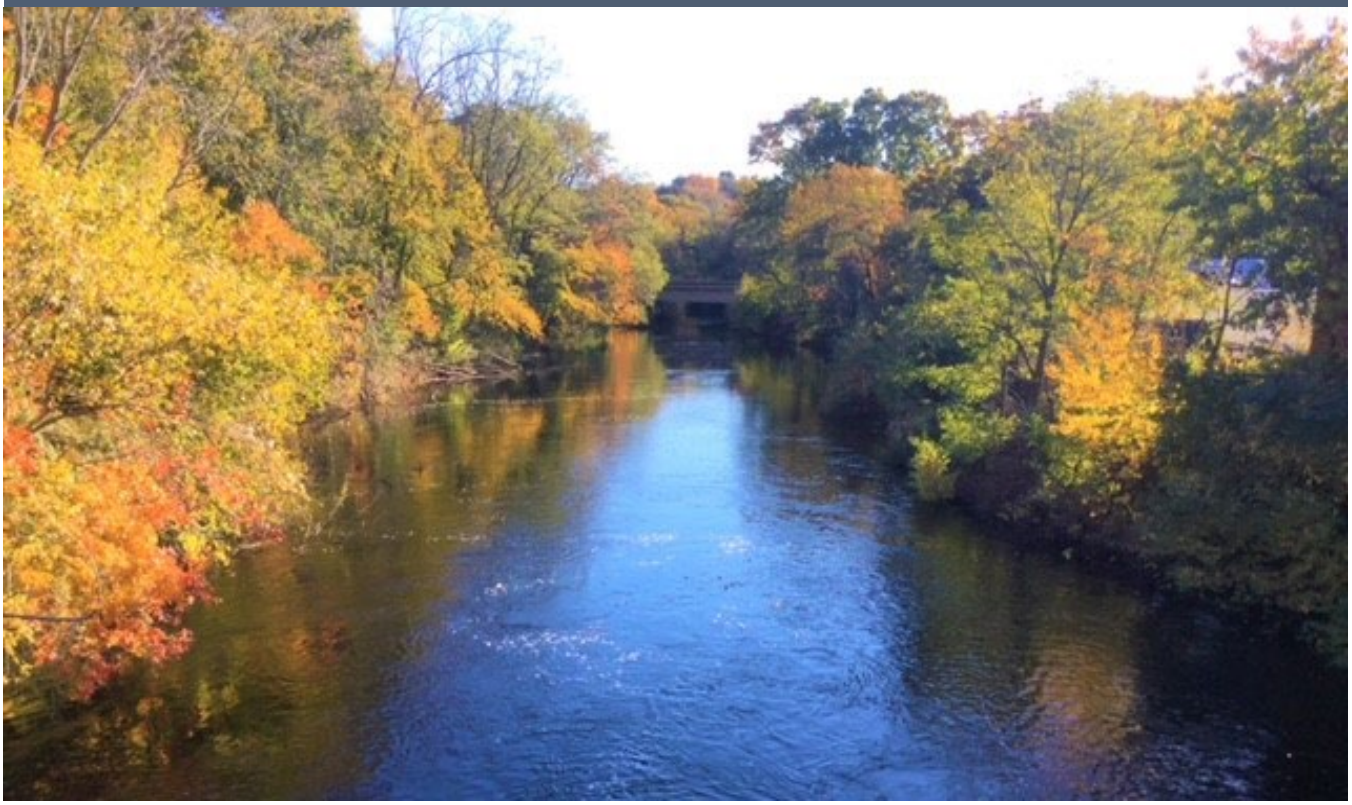
Reuse Assessment Report (FINAL)

Lower Neponset River Superfund Site
Boston and Milton, Massachusetts

December 2023



Overview

The Lower Neponset River Superfund site (the Site) is a 3.7-mile segment of the Lower Neponset River that includes sediment contaminated with polychlorinated biphenyls (PCBs). This part of the river passes through parts of Boston, Massachusetts, abutting the neighborhoods of Hyde Park, Mattapan and Dorchester, as well as the town of Milton. The Neponset River, like most urban rivers in the Northeast, has a long industrial history. By the mid-1700s, the river drained one of the most heavily industrialized drainage basins in the United States. Today, it has a complex history of contamination from point and non-point sources. Over nearly 300 years, the Neponset River has hosted countless industrial land uses, including hydro-powered factories. Many of these facilities discharged wastes directly into the river.

The United States Environmental Protection Agency (EPA) has different programs to determine if hazardous substances are present and if so, how to clean up the hazardous substances. EPA can cleanup a site as a removal action site or as a site listed on EPA's Superfund National Priorities List (NPL). Removal actions are quick responses to immediate threats from hazardous substances to mitigate dangers to the public. Whereas, NPL sites because of the degree of contamination or size of the sites, take longer to investigate, create cleanup plans, and remediate. There are several removal sites along the Lower Neponset River Superfund Site.

SEMS Doc ID 675764

In March 2022, the EPA finalized the Lower Neponset River Superfund Site listing on the Superfund program's NPL. In October of 2022, the Massachusetts Department of Environmental Protection (MassDEP) requested EPA to perform additional sampling of a dredge spoil placed along the riverbank in the 1960s, which is now referred to as the Riverside Square PCB Site. Additionally, in November of 2022, MassDEP requested EPA's assistance to evaluate the need for a removal action at the former Lewis Chemical Site, which also abuts the Lower Neponset River Superfund Site. In January of 2023, EPA approved a $3.9 million short-term clean-up plan, or removal action, for the former Lewis Chemical site. In March 2023, EPA began the Site's remedial investigation to further characterize the extent of contamination. During the summer of 2023, EPA's removal program conducted sampling of the Riverside Square PCB Site.

Site Timeline

Date	Site Activity
2015	MassDEP referred the Site to EPA for consideration for NPL listing.
2017-2019	EPA led site assessments and investigations.
September 2021	EPA proposed the Site for listing on the NPL.
October 2021	EPA hosted a virtual public meeting.
March 2022	EPA finalized the Site's listing on the NPL.
Fall 2022	Mass DEP requested EPA to perform additional sampling and evaluate removal action options for the Lewis Chemical Site.
January 2023	EPA approves cleanup plan for the Lewis Chemical Site.
March 2023	EPA began the Site's remedial investigation.
Summer 2023	EPA conducted sampling of Riverside Square PCB Site.

Concurrently with the remedial and removal investigations and actions described above, EPA's Superfund Redevelopment Program, in coordination with EPA Region 1, conducted a reuse assessment for the Site. Its goal was to identify reasonably anticipated future land uses (RAFLU) to provide guidance for EPA's cleanup decision-making process and inform land use planning activities by state and local governments and other interested parties.

This Reuse Assessment Report provides background information and identifies current land use, ownership and demographic considerations at the Site as well as stakeholder perspectives and feedback gathered in 2022 and 2023.

Site Background

Prior to early European contact, the Massachuset People of the Neponset lived in the area. The Massachuset lived in about 20 villages along Massachusetts Bay between present-day Salem and Marshfield. They worked the land and relied on fish, mammals, reptiles and plants found along and in the waterways, marshes, rivers, streams and glacial ponds of the New England coastline.

After European settlement, people established mills along the Lower Neponset River in the present-day locations of Dorchester, Milton, Hyde Park and Mattapan. The mills used dams to generate power to turn mill grinding wheels and later to operate larger industrial facilities. Early mills included a chocolate mill, at least eight paper mills, and several lumber, flour and corn mills. By 1890, mills along the river made a variety of products, including cotton goods, boots, shoes, hats, paper, cabinet wares, furniture, block tin, tin wares, leather, ironworks (nails and horseshoes), clothing, soap, candles, chocolate, gossamer (rubber products), starch, textiles and playing cards. Industrial activities along the Lower Neponset River continued until 1965, when the last major industrial facility (the Walter Baker Chocolate Company, a division of General Foods) relocated.

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Figures and Tables

Past investigations of the Neponset River, including parts of the Lower Neponset River, have addressed sediment and water. The U.S. Army Corps of Engineers (USACE), the United States Geological Survey (USGS), the Massachusetts Department of Environmental Protection (MassDEP) and EPA led these efforts.

The Massachusetts Department of Public Health (DPH) issued a fish advisory for the Neponset River in 1995. It has been updated several times. The current advisory focuses the consumption of American Eel and White Sucker due to PCBs and dichloro-diphenyl-trichloroethane (DDT). Additionally, primary contact recreation in the Neponset River has been classified as impaired by MassDEP due to *Escherichia coli (E. Coli), Enterococcus* and PCBs. MassDEP defines primary contact recreation as any recreation or other water use in which there is prolonged and intimate contact with the water with a significant risk of ingestion of water. These uses include wading, swimming, diving, surfing and water skiing.

In 2002, USACE did a study focused on fish passage, habitat and recreational use of the Neponset River. As part of the study, two sediment cores were collected and analyzed. Results indicated that bottom sediments contained elevated concentrations of PCBs, raising concerns about sediment, water and biota quality in the Neponset River.

In 2002 and 2003, USGS, in cooperation with the Massachusetts Executive Office of Environmental Affairs Riverways Program and EPA, did a study that included the Lower Neponset River. A second USGS study from 2004 to 2006 looked at concentrations, loads and sources of PCBs. It collected and analyzed sediment, water and fish-tissue samples. The study found that PCB concentrations were significantly higher in sediment core samples collected downstream of the confluence of Mother Brook and the Neponset River.

In 2013, MassDEP conducted sediment core sampling at four areas along the river to further evaluate PCBs in river sediments. The results confirmed that PCB concentrations were highest downstream of the confluence of Mother Brook and the Neponset River. In 2015, MassDEP requested that EPA consider the river for potential listing on the NPL, due to PCB contamination in surface water, sediment, and fish.

In 2017 and 2018, EPA conducted the Site's preliminary assessment and site investigation (PA/SI) to inform the Hazard Ranking System (HRS) package, the principal mechanism used by EPA to evaluate sites for NPL listing. EPA proposed the Site for NPL listing in September 2021. EPA finalized the Site's NPL listing in March 2022.

To date, there has been significant public involvement at the Site and community groups have advocated for cleanup for years. The announcement of the Site's NPL listing received substantial media coverage. U.S. Representative Ayana Pressley, U.S. Representative Stephen Lynch, U.S. Senator Elizabeth Warren and Boston Mayor Michelle Wu attended an EPA event announcing the Site's NPL listing and supported its listing.

Land Use Considerations

This section of the report describes local land use considerations, including the Site's location and physical setting, as well as existing access and infrastructure, existing land uses (by neighborhood), population and demographics, and current revitalization and planning efforts.

Location and Physical Setting

The Site begins at the confluence of the Neponset River and the Mother Brook, a tributary of the Neponset River, and flows 3.7 miles downstream to the Walter Baker Chocolate Dam. The Site includes a 3.7-mile stretch of the river (shown in Figure 1). For the Site's baseline reuse assessment, EPA defined a Reuse Assessment Study Area. It includes some of the properties located next to the 3.7-mile stretch of the river. An estimated 49,682 people live within a half-mile of the Site. About 92,913 people live within a mile of the Site. An estimated 474,244 people live within 4 miles of the Site.[1] The Population and Demographic Considerations section of this report provides more information.

[1] *Source:* EPA EJScreen, version 2.2.

Figure 1. Site Location and Regional Context

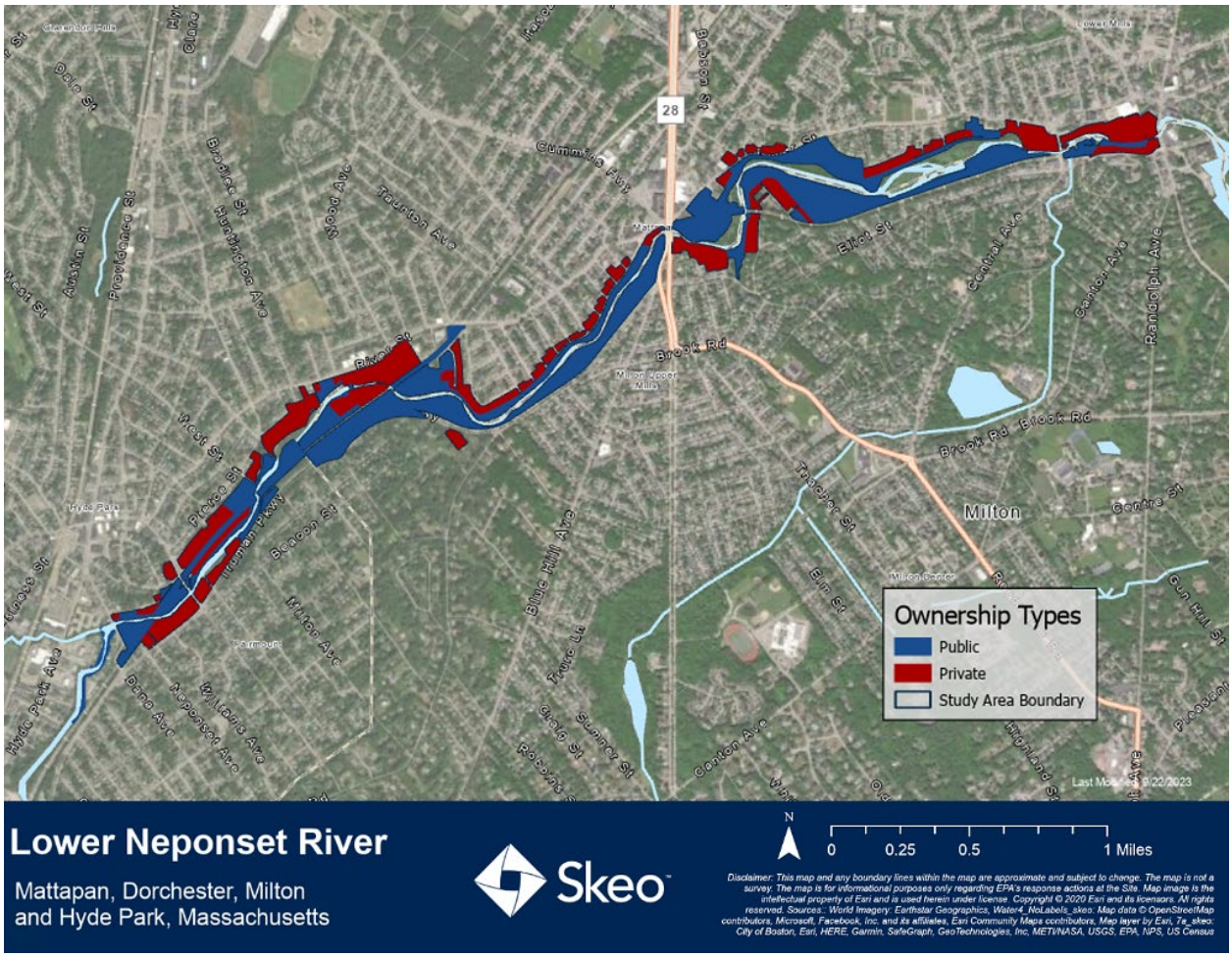

Figure 2. Types of Land Ownership along the Site

Surrounding Land Use and Land Ownership

Residential, commercial, industrial and public parcels of land, including the Neponset River Greenway, border the Site. Most of the Site is bordered by public land owned by the city of Boston, the Massachusetts Department of Conservation, the Massachusetts Bay Transit Authority, the Milton Conservation Commission and the Milton Parks Department (see Figure 1, Figure 2 and Table 1 below).

Table 1. Land Ownership

Ownership Type	Number of Parcels	Percent of Total Study Area
Public	43	79%
Private	32	21%

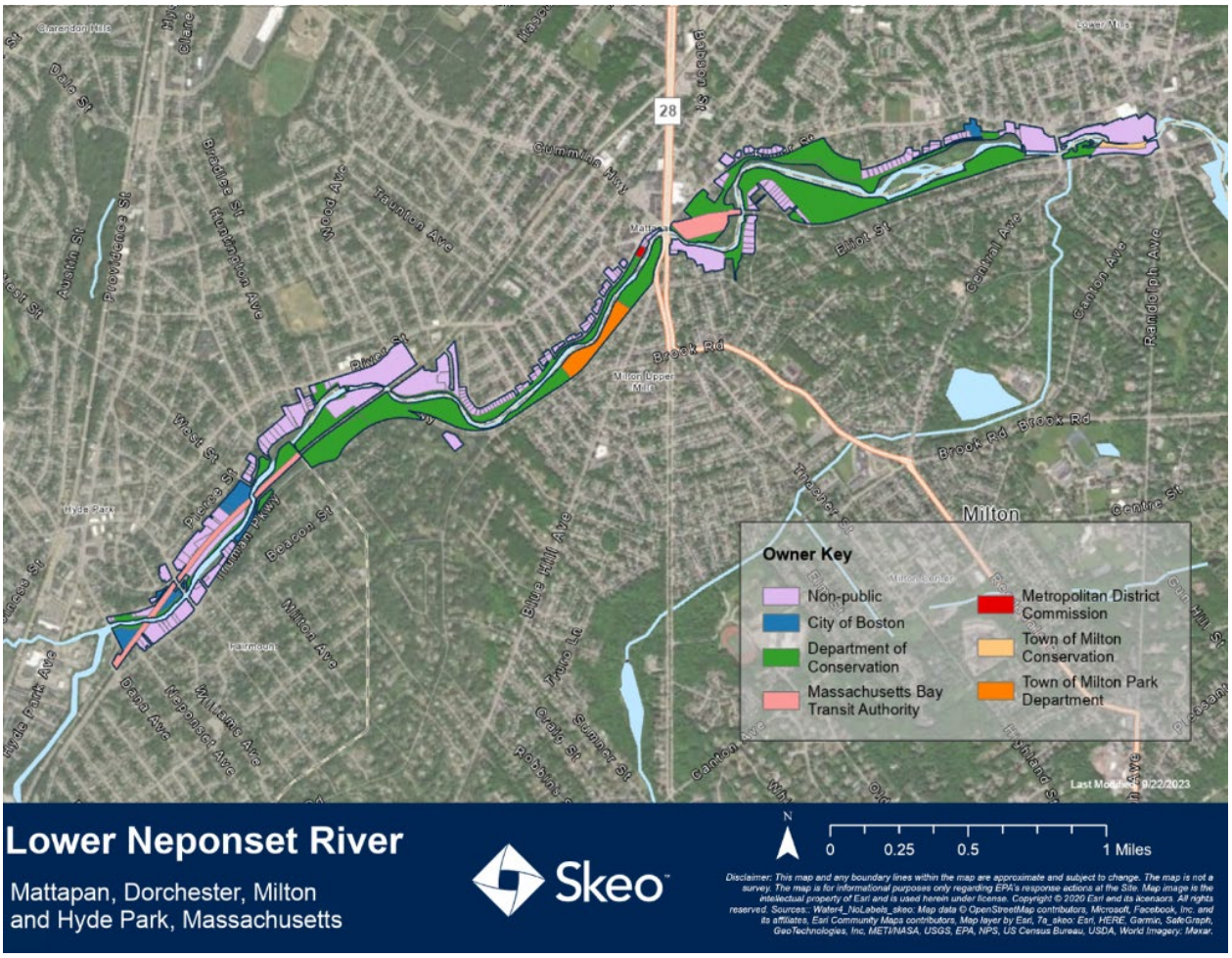

Figure 3. Public Land Ownership Areas

Natural Features

The Site's hydrology, topography, riverbanks, floodplains and riparian areas have been significantly impacted by past and current land uses in the surrounding area. Additionally, much of the Site has been altered by dams and flood-control measures.

The Site's riverbed channel ranges from about 40 feet wide to 300 feet wide, and includes an estimated 40 acres bordering the city of Boston (Hyde Park, Mattapan, and Dorchester sections) and the town of Milton. Water also enters the Site through Pine Tree Brook, a small tributary near the Baker Dam Impoundment. The Site drains directly into the Neponset River Estuary, a sub-embayment of Boston

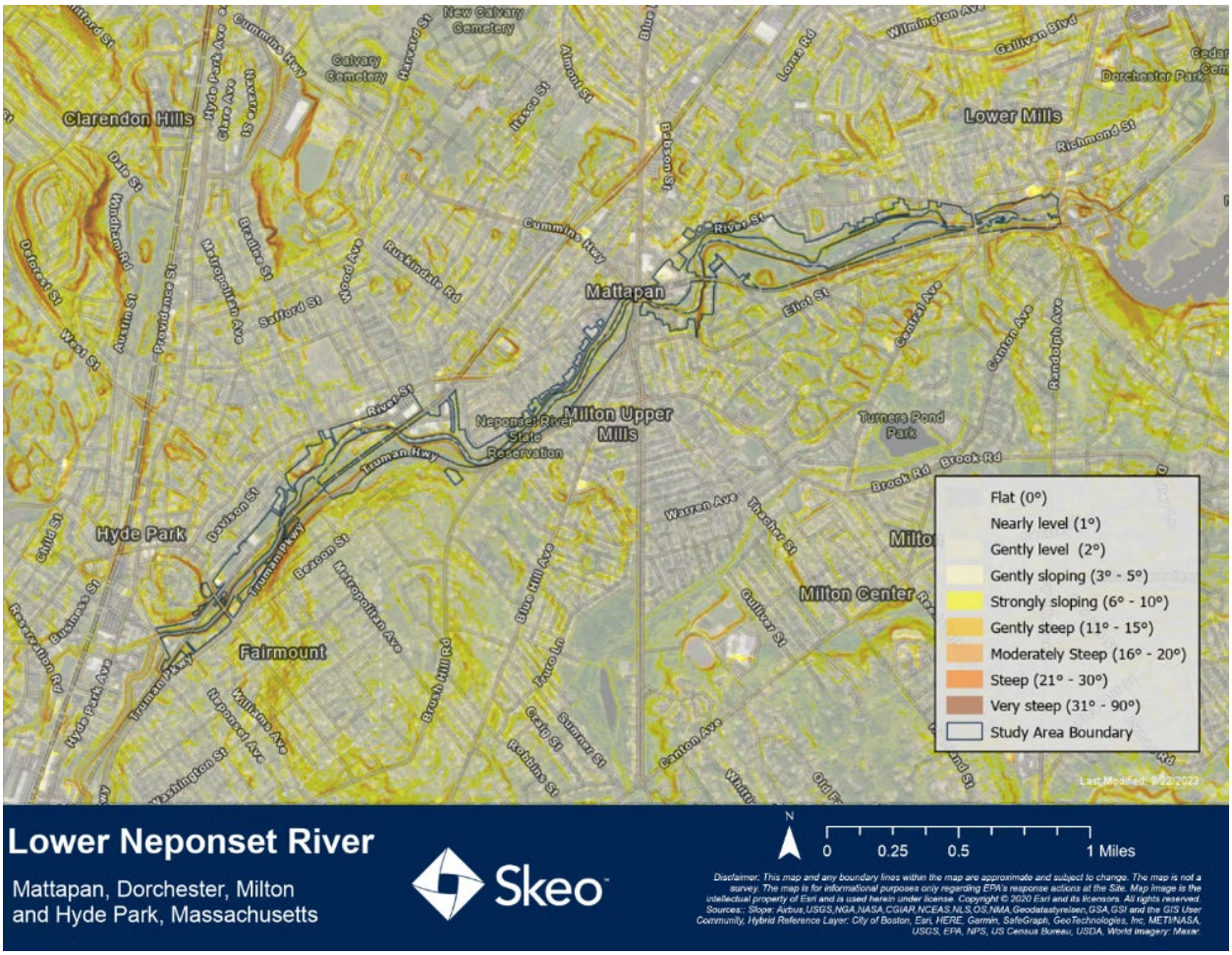

Figure 4. Topography and Slope

Harbor. Because this estuary supports anadromous fish habitat and shell fisheries, the state designated it as an Area of Critical Environmental Concern.

Water depths at the Site range from less than 1 foot to about 15 feet. The entire Site is within regulatory floodway and 100-year or 1% Annual Flood Hazard zones (Figure 4). Areas surrounding the Site are predominantly classified as urban land with gradual slopes (0% to 15% slopes). The western segment of the Site, consisting of the Lewis Chemical Company/Fairmont Station location, has steep banks along the river. The Brush Hill/Tileston & Hollingsworth (T&H) Dam segment has elevated topography (Figure 4).

Dam Structures

One result of early industrialization along the river was a need for hydro-powered dams to provide power for nearby mills. The T&H dam and the Walter Baker Chocolate dam structures remain in place and are part of the Site. The Massachusetts Department of Conservation and Recreation regulates dam safety. Both dams are classified as Class II (significant) hazard potential dams and were deemed to be in overall poor condition as of 2021. Poor condition, as defined by Massachusetts Office of Dam Safety Phase I Formal Dam Inspection Report Format and Submission Requirements, is when “significant structural, operation and maintenance deficiencies are clearly recognized for normal loading conditions”.

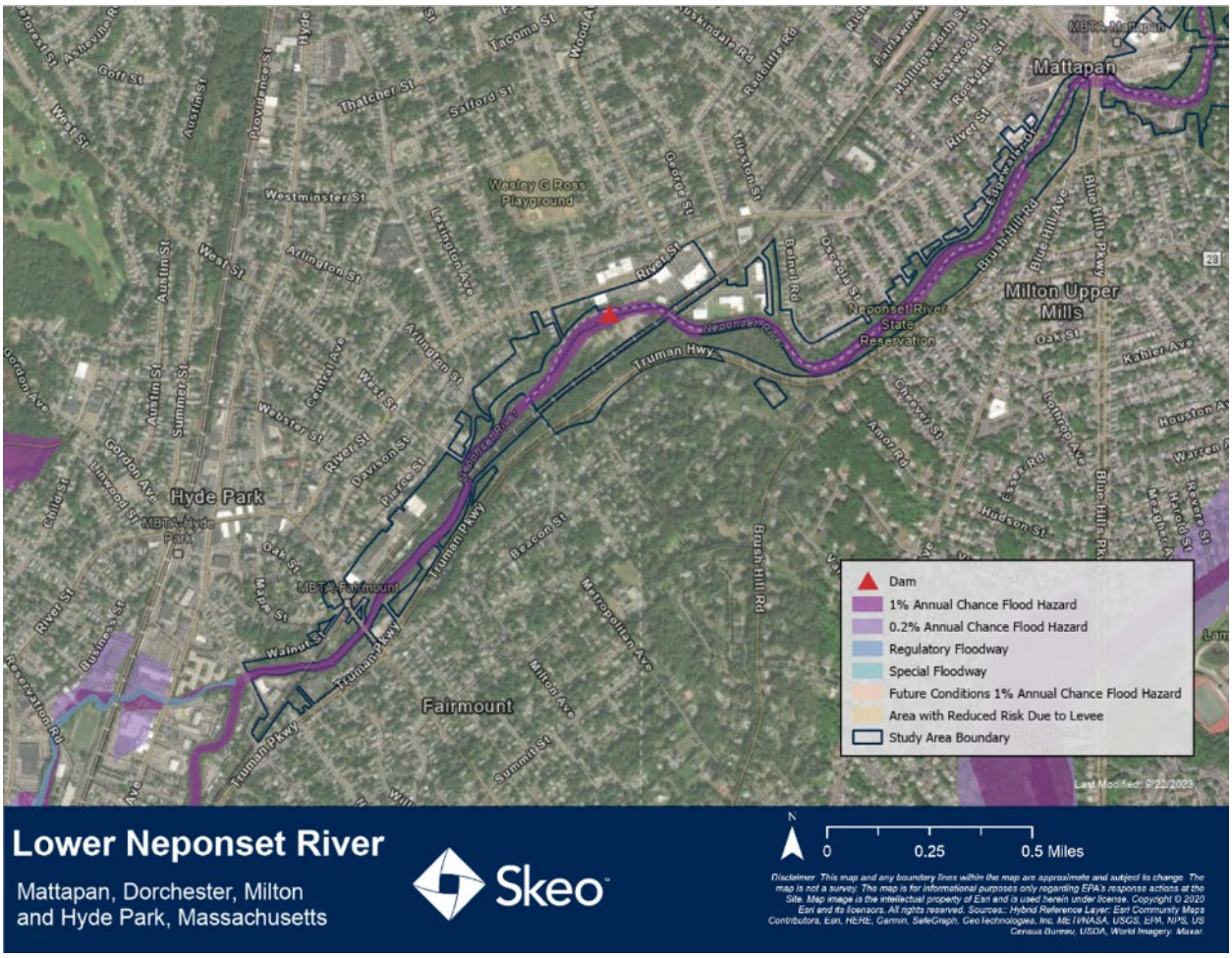

Figure 5a. Site Flood Zones and Dams

The T&H Dam is located along the Hyde Park/Milton stretch of the river, upstream from the Blue Hill Avenue bridge (Figure 5a). The dam was built to provide a source of water for a mill (since demolished) on the south bank of the river. Today, the T&H Dam structure no longer retains water and is in poor condition.

The Walter Baker Chocolate Dam (Figure 5b) separates the braided-channel section of the river from its lower elevation coastal and tidal salt marsh stretches. While the dam continues to retain water, it is in poor condition.

In 1955, major flooding occurred in the river basin and across southern New England. In 1962 and 1964, as part of an effort to control flooding and increase recreation in the Neponset River Basin, the Metropolitan District Commission (MDC, now part of the state Department of Conservation and Recreation [DCR]) repaired the dams and put flood-control measures in place. These measures included dredging of the Lower Neponset River to deepen the channel and placing dredge spoils from the river in several locations along its banks.

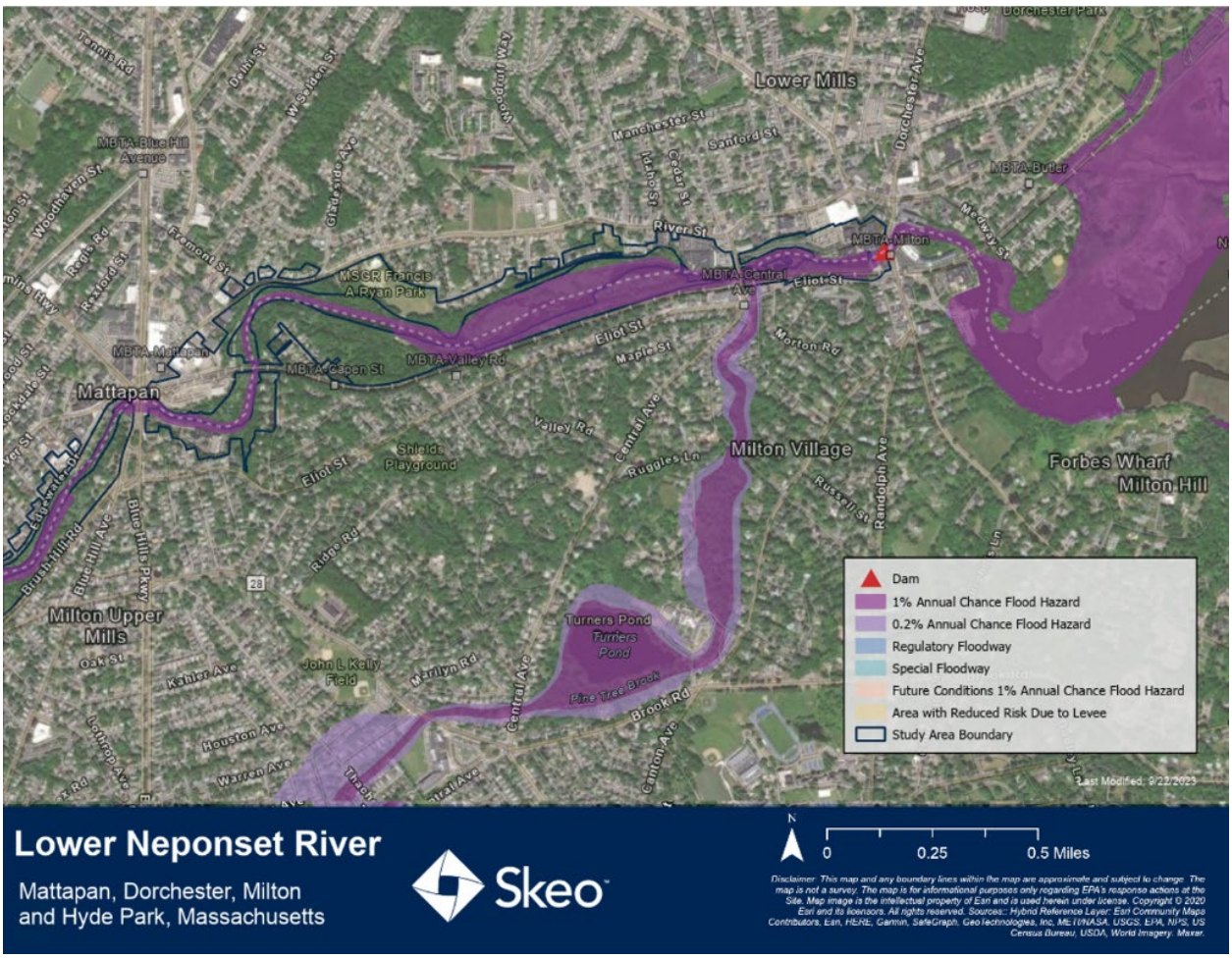

Figure 5b. Site Flood Zones and Dams

Access and Infrastructure

The Site is accessible by public transit, vehicle, bike, foot and non-motorized boat (Figure 6). Many recreation areas are located next to the Site.

Major Roads: Transportation networks conform to the flow of the river channel, with major arteries on both sides of the river. Truman Highway, a limited-access divided highway, traverses Milton areas on the south side of the river, along with major arterial roads such as Central Avenue and Brush Hill Road. Fairmount Street, Blue Hill Avenue and Adams Street are key arterial roads with bridge crossings in the study area. In Hyde Park and Mattapan, River Street is the primary artery running parallel to the river. Collector streets and residential streets extend River Street from River Street to dead ends at the high bluffs above the river.

Public Transit: The Site is in an area with access to a variety of transit options. The Metropolitan Boston Transit Authority (MBTA) and Amtrak railroad commuter line crosses the Site. The Fairmount and Mattapan commuter rail stations are nearby. MBTA operates a trolley line next to the Site. MBTA bus routes follow major arterial roads around the Site.

Recreation Areas: Public recreation areas encompass and border most of the Site. These areas include West Street Park, the Neponset River Reservation, Doyle Playground, Kennedy Playground, City Natives Community Gardens and Ryan Playground. Bicycle and pedestrian trails are part of the Neponset River Greenway, which runs along about 1.5 miles of the Site. There are also five public canoe and/or kayak launches along the Site: Truman Parkway launch in Hyde Park, Kennedy Playground/Neponset Esplanade launch in Mattapan, Ryan Playground launch in Mattapan, Central Avenue launch in Mattapan, and the Baker Dam Portage launch in Milton.

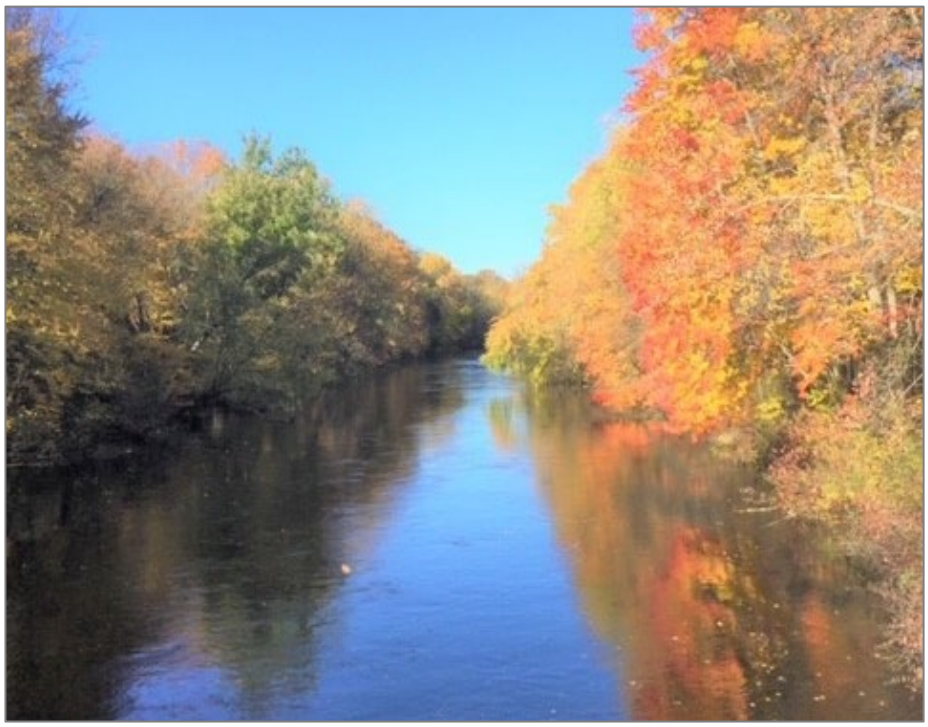

Figure 6. Recreation Areas and Access Points

Existing Land Uses, by Neighborhood

Hyde Park (City of Boston)

- The Hyde Park community encompasses western areas of the Site in the city of Boston, including the river's confluence with Mother Brook and land on the northern and southern sides of the Site.
- Land uses next to the Site include commercial, industrial and community facilities to the southwest and residential areas in eastern areas of the community.
- Hyde Park also includes the Fairmont MBTA commuter rail station and line, five boat launches, two train bridges, two road bridges and the T&H Dam.
- Local topography varies significantly. Many river-adjacent properties are at an elevation high above the waterway. Due to steep sloping banks and land use patterns, direct public river access and views of the river are limited. Publicly owned properties and recreation areas along the Site include the West Street Urban Wild and Doyle Park, which are managed by DCR.
- The 0.9-acre Lewis Chemical site is in a neighborhood with businesses and homes. The site has three parcels. The city of Boston owns two of them. The state owns the third parcel. The site is next to the Neponset River. It is also near the Fairmount Massachusetts Bay Transportation Authority train

station and railroad tracks. In January 2023, EPA approved a $3.9 million short-term cleanup plan, also known as a removal action, for the site. EPA began the removal action in April. The goal is to remove the source of contamination by digging up and disposing of soil contaminated with PCBs and other hazardous substances. The city is planning for the reuse for this area. It is zoned for commercial uses; future uses may also include open space. The city will coordinate with EPA and DCR regarding its future use during and after cleanup.

- The Riverside Square PCB site is on the river's northern bank, in the Riverside Square area. It is one of the locations where MDC placed dredged materials from channel deepening efforts in 1962 and 1964, essentially creating new land. In October 2022, MassDEP requested that EPA further investigate dredged soil at the site. In the spring and summer of 2023, EPA and its contractors completed a land survey, followed by soil sampling, to determine the extent of contamination, if any. Once sampling results are available, EPA will issue an updated fact sheet sharing the findings, including any cleanup activities that may be needed.
- DCR's overall goals in the area include creating a new trail connection between West Street and Doyle Park and a new pedestrian bridge crossing at Osceola Street.
- In addition to ongoing trails planning, DCR also has a greenway master plan and ongoing roadway and transportation improvement projects, such as traffic calming along Truman Highway and pedestrian safety studies. DCR continues to monitor T&H Dam conditions as well, with current plans to replace one of the doors, and no near-term plans for dam removal.

Mattapan (City of Boston)

- The Mattapan neighborhood is northeast of Hyde Park, on the northern side of the river.
- The neighborhood includes Mattapan Square, a large commercial district, as well as parks, open space and residential land uses along the river.
- Mattapan also includes MBTA lines and stations, the Mattapan trolley, the Neponset Trail, Ryan playground and multiple river crossings, at Harvest River Bridge, the Central Avenue Crossing, the Neponset Riverwalk and the Adam Street Crossing.
- Local topography includes gradual slopes and steep riverbanks, with many river-adjacent properties at elevations high above the waterway. Direct river access points include five boat launches and recreation and overlook areas.
- The proposed Edgewater trail project and a proposed pedestrian bridge at Osceola Street are both in Mattapan.
- Local municipal goals include finding productive reuses for applicable parcels, leading community engagement efforts to inform planning, and exploring potential zoning changes for Mattapan Square and updating residential zoning districts. PLAN: Mattapan, adopted in May 2023, focuses on economic development, transit-oriented market-rate and affordable housing growth, and preservation of the neighborhood's character and unique attributes.

Town of Milton

- Most of the southern side of the Site is in Milton.

- This area includes open spaces, transportation infrastructure, community facilities and some residential land uses.
- Milton's open-space areas include pedestrian trails that provide visual and physical access to the river.
- Local topography includes gradual and steep riverbanks. Southeastern and upstream parts of Milton include the riverbed. Western areas are broad flat areas with better river access. Many parcels next to the Site are DCR-owned (public properties).
- The privately owned Milton Falls property is next to the T&H Dam. The property could provide opportunities for recreational river access and could also be a good cleanup staging location for EPA. The property does have access challenges, due to the configuration of the rail line, road networks and T&H Dam.
- Local municipal goals include the creation of river crossings and connections for pedestrians, potential redevelopment at the 2 Adams Street site next to the Walter Baker Chocolate Dam, and updating the town's Open Space And Recreation Plan.
- The Baker Dam area includes a former chocolate factory that is a valued local historic resource.

Dorchester (City of Boston)

- The Site northeastern-most area includes a small part of Dorchester. Local features include the Baker Dam, the Adams Street bridge and the Neponset River estuary downstream of the Site.
- Ventura Park is located in this area and offers boat access to portions of the river flowing downstream from the Baker Dam through the Neponset River estuary and its salt marsh wetland habitat.
- Local topography includes some gentle to moderately sloping land next to the river.

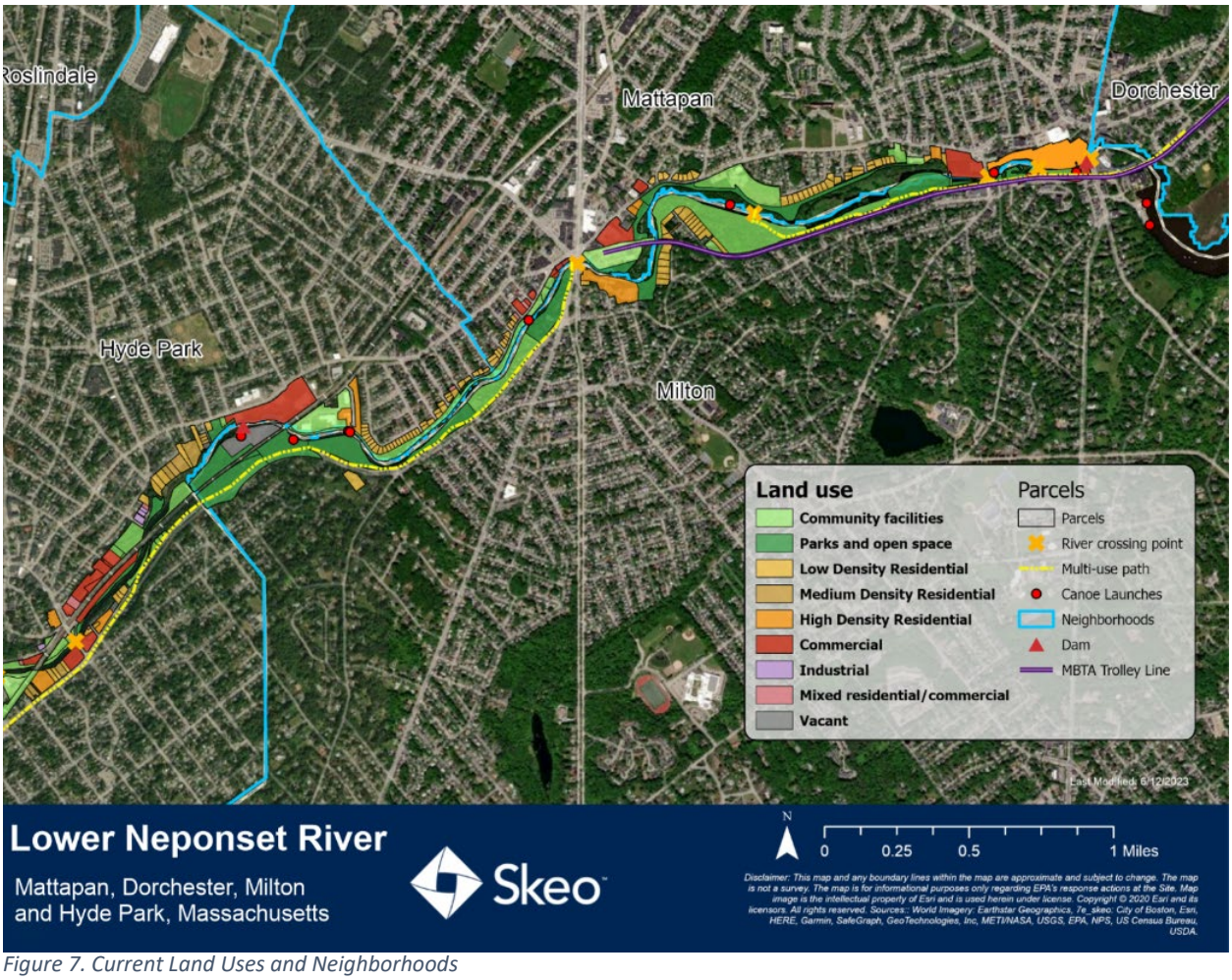

Figure 7. Current Land Uses and Neighborhoods

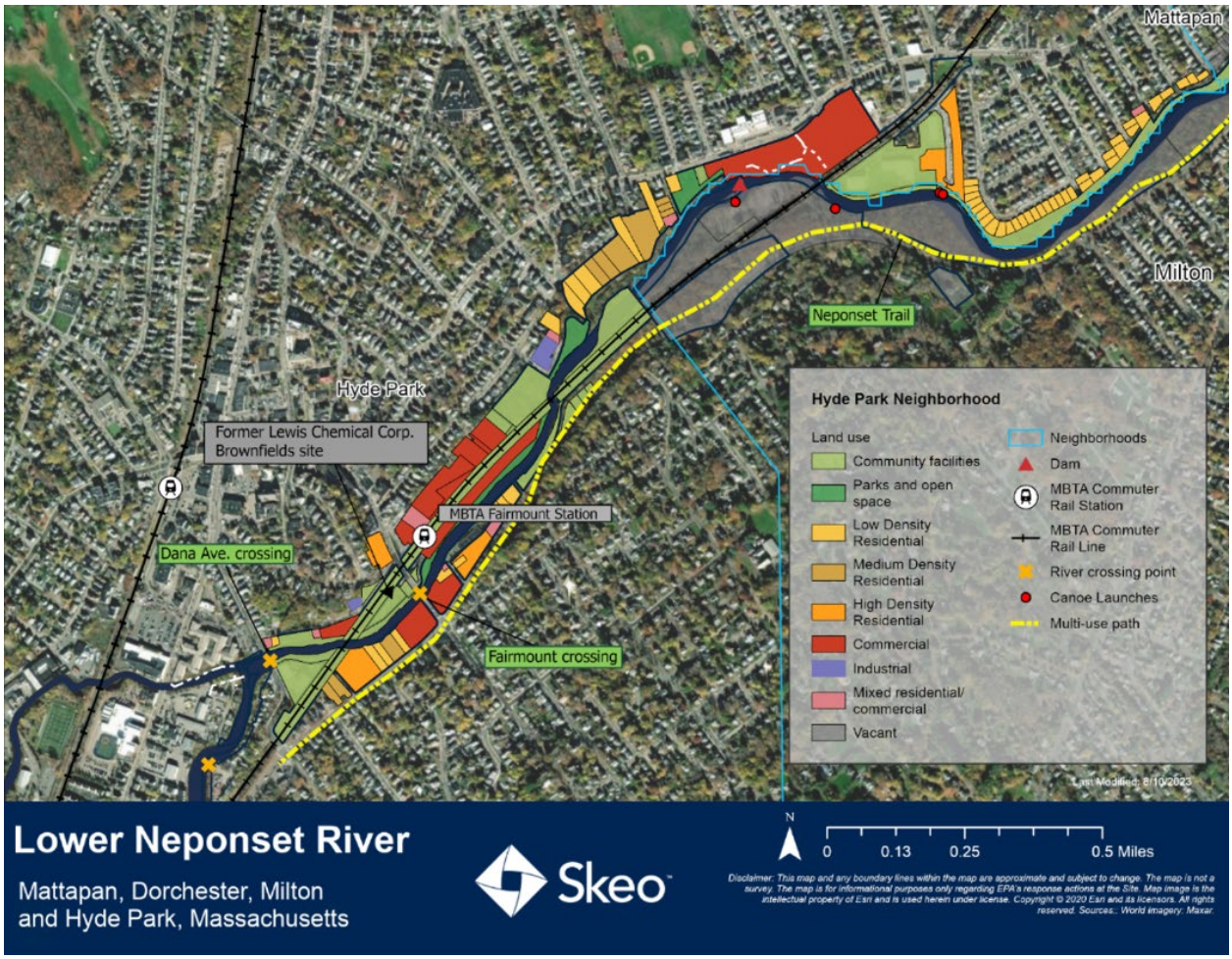

Figure 8. Hyde Park Neighborhood

Figure 9. Mattapan Neighborhood

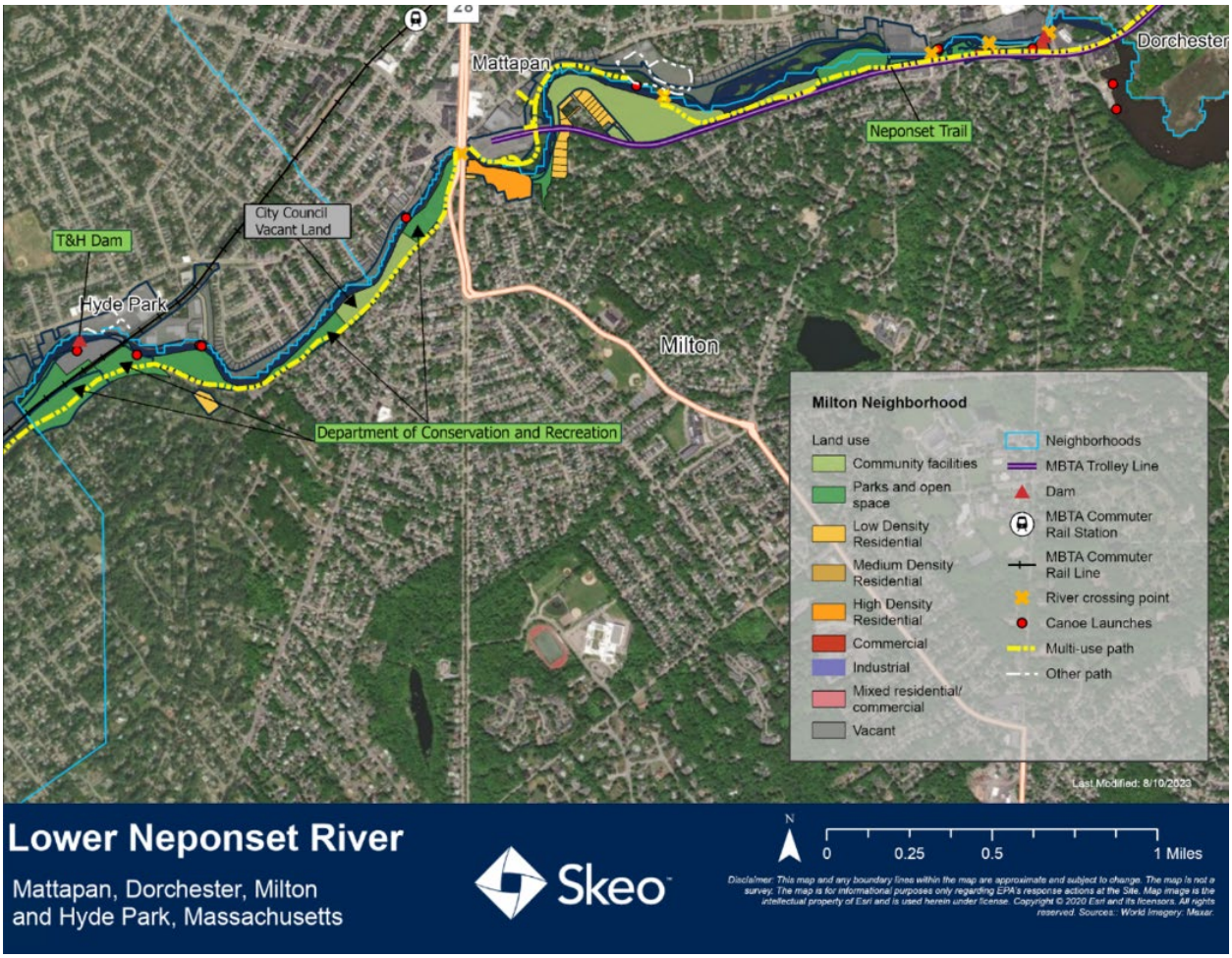

Figure 10. Milton Neighborhood

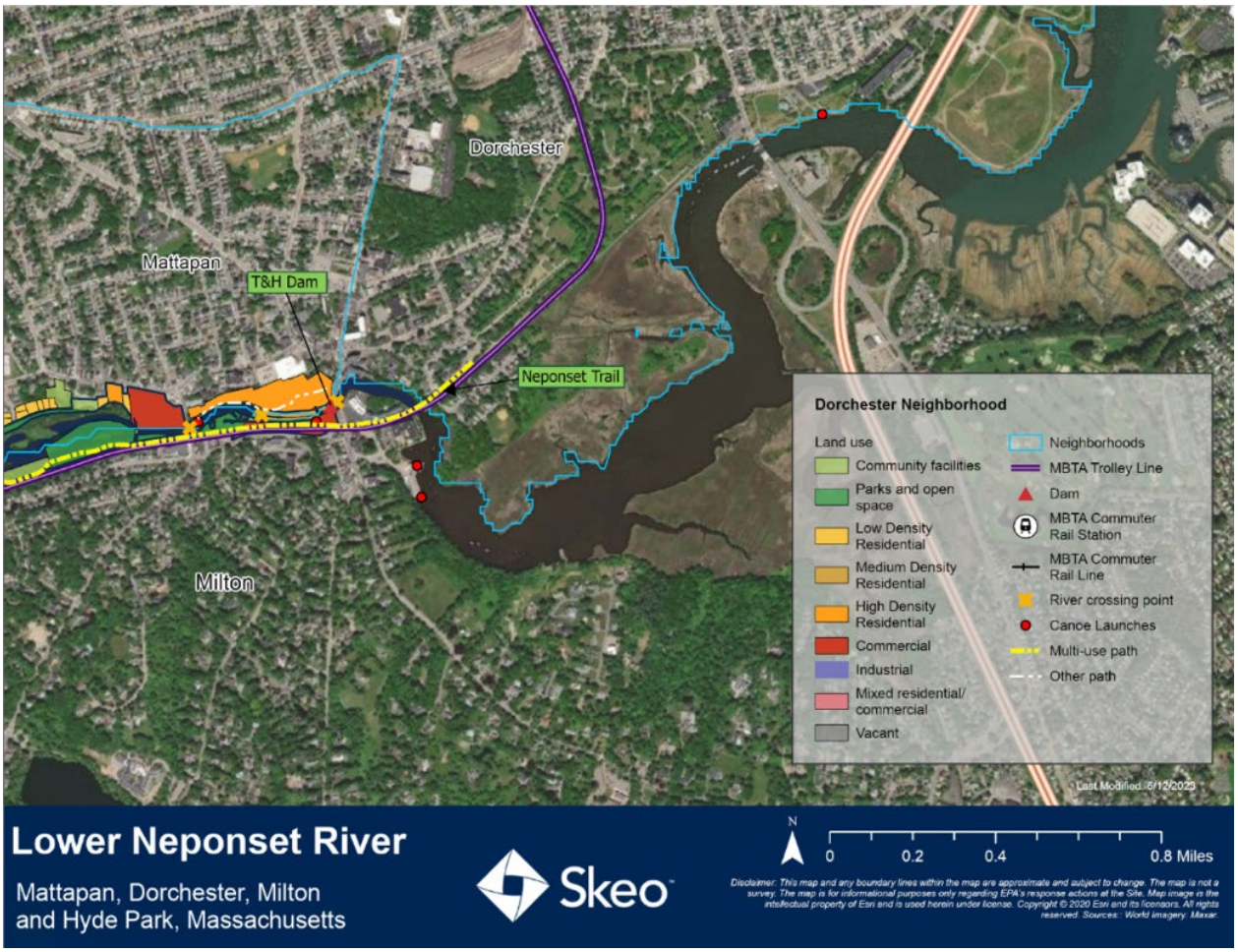

Figure 11. Dorchester Neighborhood

Population and Demographic Considerations

In addition to local land use considerations, the area's population, housing, economic wellbeing and public health are key factors that inform future land use considerations. This section of the report provides a demographic analysis of the Site and surrounding areas. EPA's Superfund Redevelopment Program's Superfund Equity Assessment Tool provided the analysis. Its assessment of demographic and public health factors helps support and facilitate reuse discussions that include consideration of environmental justice and equity concerns such as economic displacement and economic disinvestment.

Overall Site Summary

The Site consists mostly of a waterbody so the tool used a half mile radius around the site boundary to reflect the area's population more accurately. An estimated 49,682 people and 17,506 households are located within a half mile radius of the Site. This population has an estimated per capita income of $43,043. EPA's EJScreen environmental justice screening and mapping tool identified demographic and environmental risk factors at the Site. Data from EJScreen is reported in percentiles and these values compare local residents to everyone else in the country. A percentile value represents the US population that has an equal or lower value. An 80th percentile for example, means that the value of the indicator is higher than where 80% of the US population lives. The 80th percentile is generally a starting point for identifying areas that may warrant further EJ consideration, analysis, or outreach.

Of the 17 indicators analyzed, 11 were above the 80th percentile nationally across the site. These indicators include low income, people of color, unemployment rate, those over age 64 or under age 5, lead paint, and asthma. The tool also analyzed the site area for factors signaling chronic disinvestment. The site is in a medically underserved area. Highways, rail lines and transmission lines are within a half mile of the Site. Across the site, up to 21% of the population lacks internet access which is above the national average of 10%, with communities having a high social vulnerability designation according to the Centers for Disease Control (CDC) and identified as disadvantaged, according to the White House Climate and Economic Justice Screening Tool (CEJST).

The site area includes public or subsidized housing units, 64% of the population spends more than 30% of its income on rent, and the area has a 12% housing vacancy rate. Site assets identified include not being in a food desert, having parks and open space on site, and being in a highly walkable area. Median home values and rents are above national median values, as well as having the MATCH Community Day Charter Public School located within 500 feet of the Site; it has an enrollment of about 650 students. Several day care and pre K facilities are also within 500 feet of Site, serving hundreds of infants, toddlers and young children.

Hyde Park

In Hyde Park, the analysis found environmental justice factors for low income, people of color, unemployment, linguistically isolated, less than high school education, under age 5 and over age 64 were all above the 80th percentile nationally, as well as indicators for lead paint and underground storage tanks. The rate of low life expectancy was in the 63rd percentile nationally. Heart disease was in the 60th percentile nationally. Asthma was in the 97th percentile nationally. This part of Hyde Park also includes a medically underserved area. Rail and transmission lines extend through the area. Across this

area of Hyde Park, up to 21% of the population lacks access to the internet, above the national average of 10%. This area has the highest social vulnerability designation from the CDC and a disadvantaged community designation from the White House CEJST tool. Across the area, up to 58% of the local population spends more than 30% of their income on rent, and there is public/subsidized housing in the area. The highest housing vacancy rate is 4% and falls below the national average of 11%; median rent is $1,201 which is above the national median of $1,163, and the median home value is $531,400 which is above the national median of $244,900.

Mattapan

In Mattapan, the analysis found environmental justice factors for low income, people of color, unemployment, linguistically isolated, less than high school education, and under age 5 were all above the 80th percentile nationally, as well as indicators for diesel particulate matter, lead paint and underground storage tanks. The rate of low life expectancy was in the 70th percentile nationally. Heart disease was in the 60th percentile nationally. Asthma was in the 98th percentile nationally. This part of Mattapan includes a medically underserved area. Rail lines extend through the area. Up to 15% of the population lacks access to the internet, and the area has the CDC's highest social vulnerability designation. The area also includes disadvantaged communities. In total, 62% of the population spends more than 30% of income on rent, and there is public/subsidized housing in the area. The housing vacancy rate of 12% exceeds the national average of 11%; median rent is $1,345 and the median home value is $480,100, both of which are above the national medians.

Dorchester

In Dorchester, the analysis found environmental justice factors for under age 5 and over age 64 were above the 80th percentile nationally, with the linguistically isolated, less than high school education, and people of color environmental justice indicators in the 60th to 80th percentiles nationally. Indicators for diesel particulate matter, lead paint and underground storage tanks were all above the 70th percentile. Asthma was in the 79th percentile. A transmission line crosses through this area. Across this area of Dorchester, up to 7% of the population lacks internet access. This area is in the CDC's moderate-to-high social vulnerability designation. Across this area, up to 52% of the population spends more than 30% of income on rent, and there is public/subsidized housing in the area. The housing vacancy rate is 2% which is below the national average; the median rent is $1,556 and the median home value is $554,700, both of which are above the national medians.

Milton

In Milton, the analysis found environmental justice factors for low income, people of color, unemployment, linguistically isolated, under age 5, over age 64, diesel particulate matter, lead paint, and underground storage tanks were above the 70th percentile nationally. Power transmission lines running through the area. Across this area, up to 10% of the population lacks internet access. This area is in the CDC's low-to-moderate social vulnerability designation. Across this area of Milton, up to 64% of the population spends more than 30% of income on rent, and there is public/subsidized housing in the area. The housing vacancy rate is 4% which is below the national average; median rent is $2,065 and the median home value is $786,900, both of which are above the national medians.

Equity Assessment Tool Data Summary Table for the Lower Neponset River Superfund Site

	Map Layers	Site Value	Threshold
EJ FACTORS	Low Income	94th percentile	Above 80th %tile Nationally
	People Of Color	98th percentile	Above 80th %tile Nationally
	Unemployment Rate	99th percentile	Above 80th %tile Nationally
	Limited English Speaking	98th percentile	Above 80th %tile Nationally
	Less Than High School Education	88th percentile	Above 80th %tile Nationally
	Over Age 64	92nd percentile	Above 80th %tile Nationally
	Under Age 5	96th percentile	Above 80th %tile Nationally
	PM 2.5	25th percentile	Below 50th %tile Nationally
	Ozone	31st percentile	Below 50th %tile Nationally
	Diesel PM	89th percentile	Above 80th %tile Nationally
	Respiratory Risk	31st percentile	Below 50th %tile Nationally
	UST	98th percentile	Above 80th %tile Nationally
	Lead Paint	99th percentile	Above 80th %tile Nationally
	Wastewater	11th percentile	Below 50th %tile Nationally
	Low Life Expectancy	70th percentile	50th – 80th %tile Nationally
	Heart Disease	60th percentile	50th – 80th %tile Nationally
	Asthma	98th percentile	Above 80th %tile Nationally
DISINVESTMENT FACTORS	Food Desert	N	Not Present
	Medically Underserved Area	Y	Present
	Parks And Open Space	0 mi (on Site)	Within .25 Miles
	Highways	.5 mi	Within .5 Miles
	Rails	0 mi (on Site)	Within .25 Miles
	Transmission Lines	0 mi (on Site)	Within .25 Miles
	Historic Neighborhood Redlining	N	In Non-Redlined Area
	Tribal Areas	N	Not Present
	Internet Connectivity (% lacking)	21%	Above National Average (10%)
	CEJST Disadvantaged Communities	Y	Present
	CDC Social Vulnerability Index	.97	High Vulnerability (.75-1)
	Walkability Index (1-20)	18.6	Most Walkable (15-20)
	% Of Regional Jobs Accessible by Transit	26%	10-30%
	% Of Population Accessible by Transit	15%	10-35%
	% Low-Wage Workers Accessible by Transit	3%	Less than 10%
DISPLACEMENT FACTORS	Public or Subsidized Housing	Y	Present
	>30% Income on Rent	64%	Above National Average (46%)
	Median Home Value	$786,900	Above National Median $244,900
	Median Rent	$2,065	Above National Median $1,163
	Housing Vacancy	12%	Above National Average (11%)

Figures 12-15 highlight some of the Equity Assessment Tool factors used to conduct this analysis and depict how the data appears spatially around the site. The summary table above lists the highest value for each factor that occurs across the full extent of the site and half mile radius.

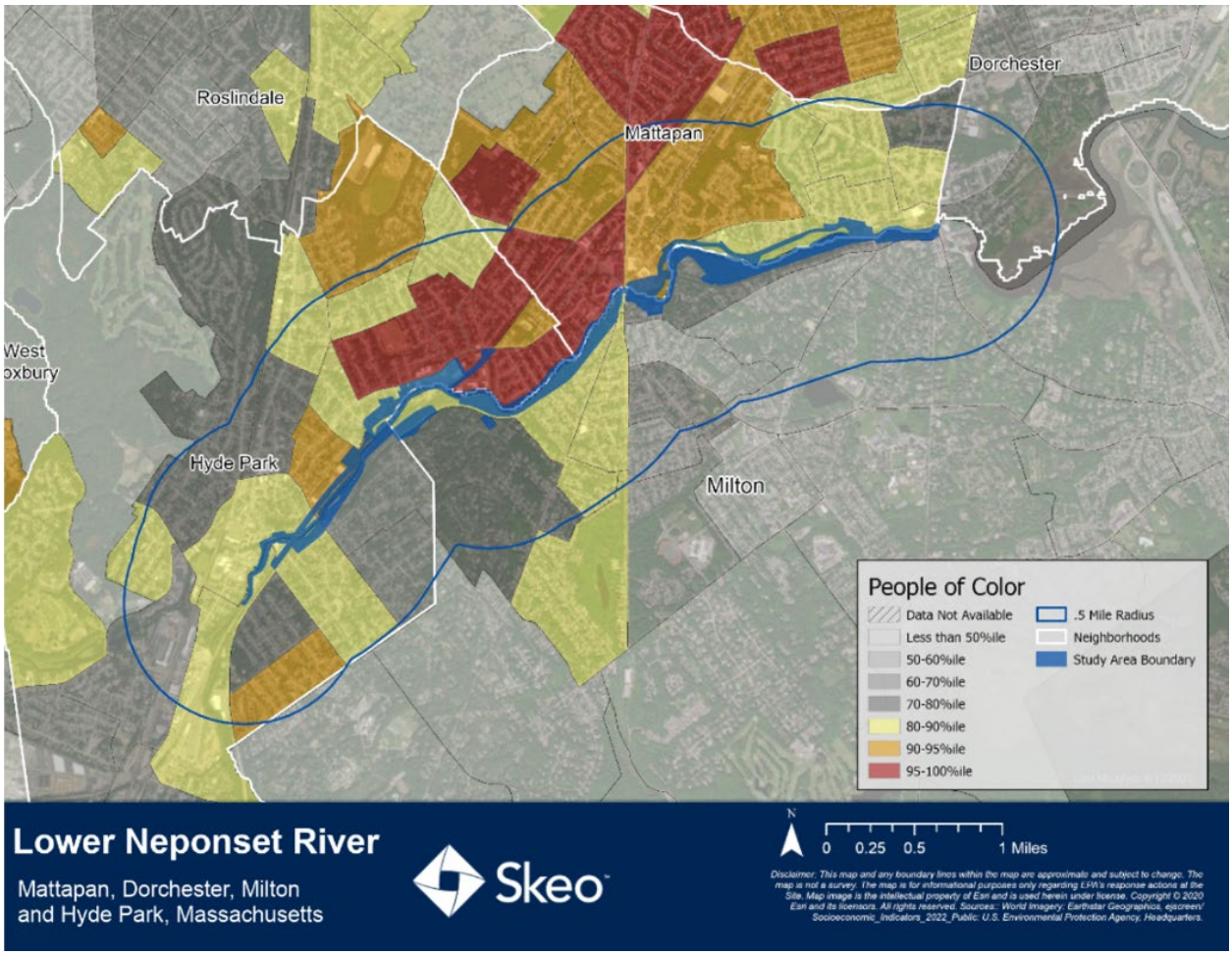

Figure 12. People of Color Population

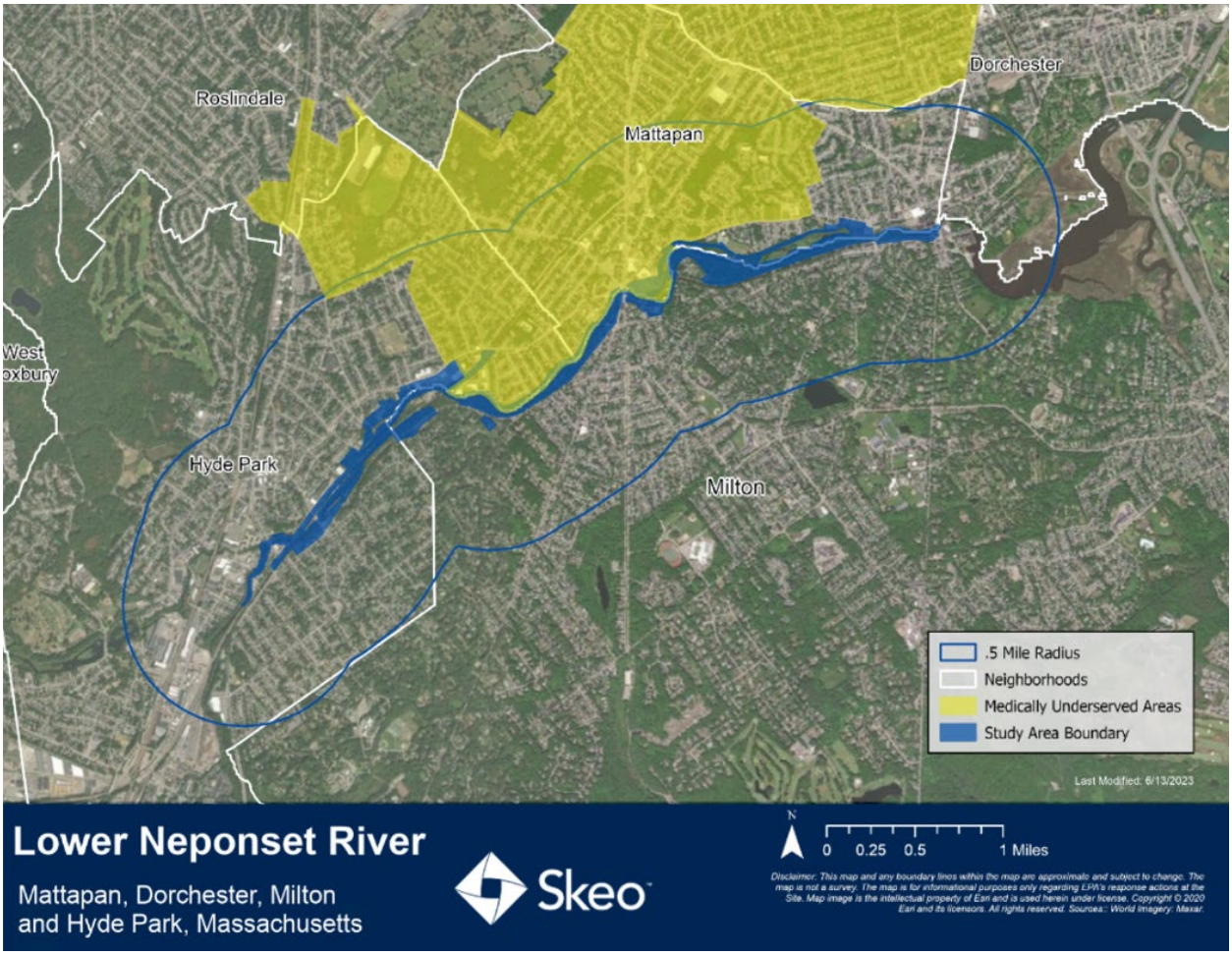

Figure 13. Medically Underserved Areas

Figure 14. CEJST Disadvantaged Communities

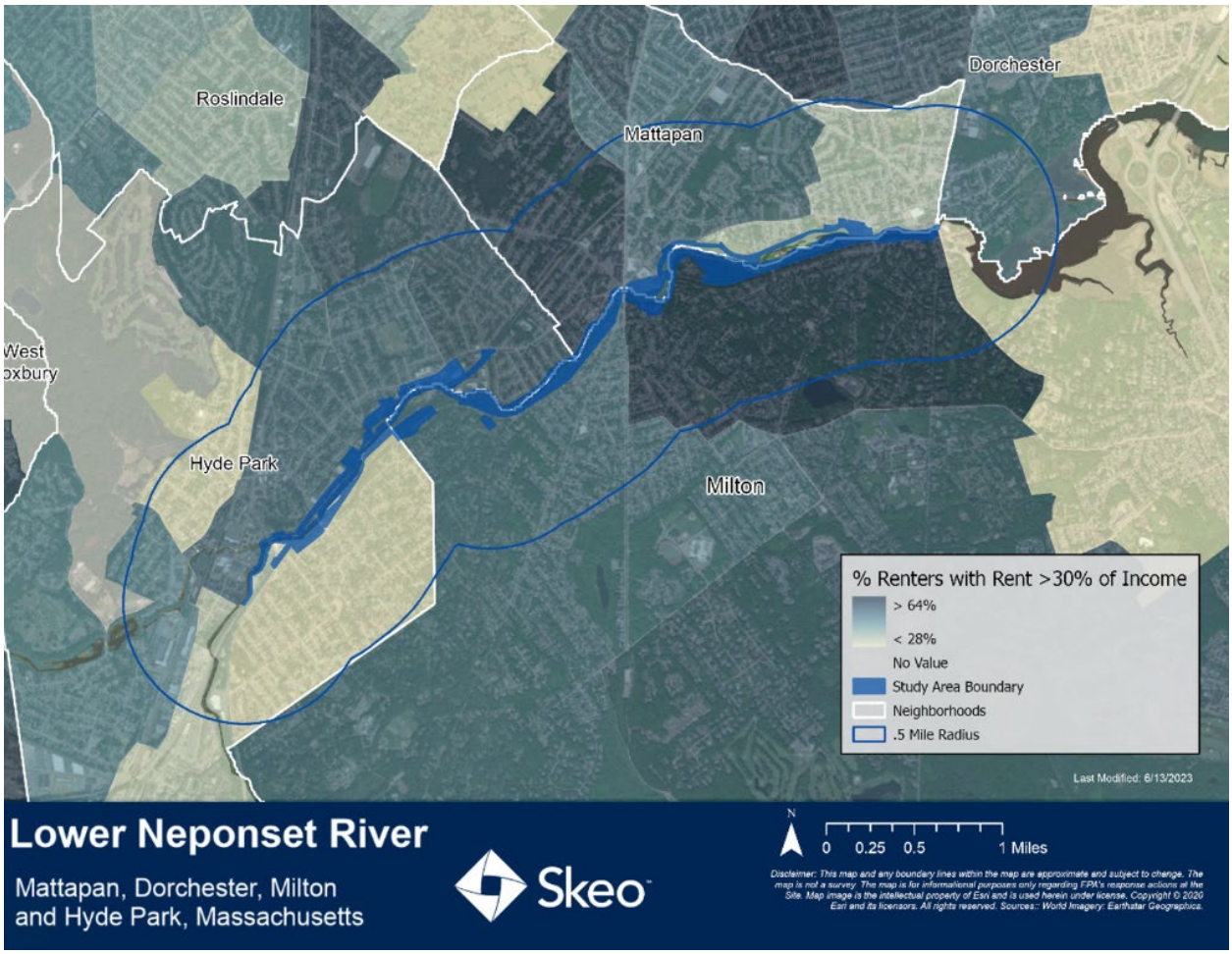

Figure 15. Population Paying Greater Than 30% of Income on Rent

Revitalization and Planning Efforts

Neponset River Plans

DCR's Neponset River Master Plan, Phase II of the Neponset River Reservation Master Plan and the Neponset River Greenway Master Plan guide development activities along the Neponset River. Past greenway planning and development focused mostly on large, contiguous, state-and-town-owned open space areas along the south side of the river in Milton. Today, these three plans emphasize the use of the river and its banks for recreation and pedestrian and bike trails that serve as neighborhood connectors. The Neponset River Greenway started with the opening of Pope John Paul Park in 1999. It expanded through the northern and southern sections of Truman Parkway and, more recently, connected Blue Hill Avenue to Central Avenue in 2017.

There are several other ongoing trail projects in the area. In Hyde Park, DCR is finalizing the design of the Edgewater Greenway Trail, which extends from Mattapan Square upstream to Osceola Street, where DCR proposed a new pedestrian bridge across the river. The proposed trail and bridge would provide new trail access between the Hyde Park and Mattapan

Dorchester

neighborhoods and connect with the Neponset River Greenway Trail in Milton. DCR ongoing and proposed projects are highlighted in Figure 16 and Table 2.

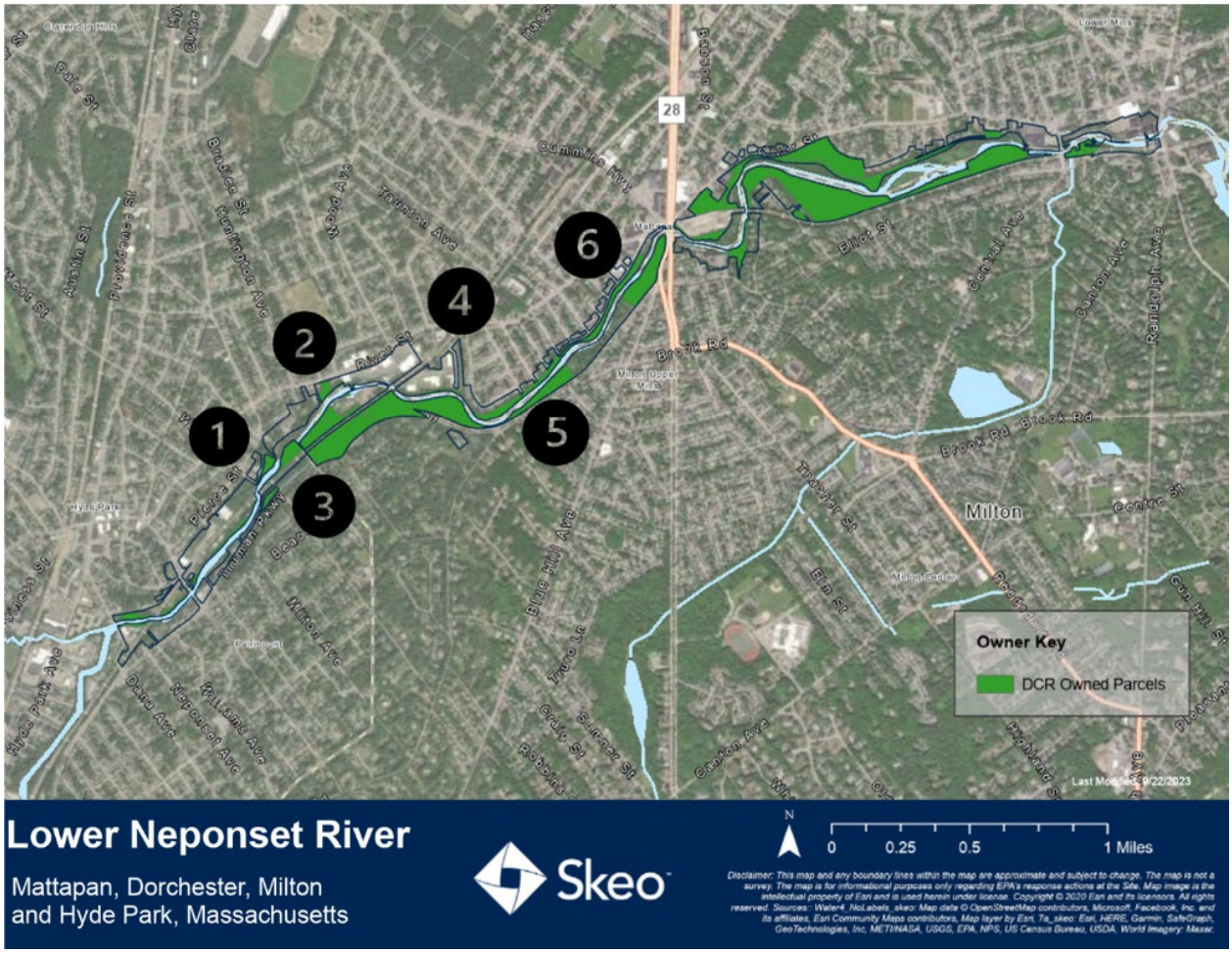

Figure 16. DCR-Owned Land and Ongoing Projects

Table 2. DCR Projects – Proposed and Ongoing

Map Number	Ongoing Project
1	**West Street Urban Wild – Riverside Square – Doyle Park** Two feasibility studies are evaluating ways to increase river access and connectivity.
2	**Doyle Park Playground and River Access** Park design is underway in coordination with Hyde Park neighborhood associations and the South Boston Community Development Corporation.
3	**Truman Highway Access Study** This transportation planning study for bicycle and pedestrian access is underway.
4	**Match Charter School Trail Feasibility Study** This trail study is looking at ways to connect greenway trails in Milton with Match Charter School in Hyde Park.
5	**Proposed Pedestrian Bridge** DCR has proposed a pedestrian bridge crossing from Osceola Street to Milton. The project is in the early planning stages.
6	**Edgewater Trail** DCR's conceptual design for a trail and linear greenway park connecting Mattapan Square and Osceola Street has been completed. The project is in the early planning stages.

Neighborhood and Town Master Plans

Neighborhood and town master plans also recognize the importance of continued use and reuse along the banks of the Lower Neponset River. Neighborhood plans for Hyde Park and Mattapan are built on the neighborhood-level analysis in Boston's Open Space & Recreation Plan. As cleanup plans evolve, awareness of these general land use plans and the resulting redevelopment projects may have implications for cleanup and reuse at the site.

Hyde Park's Neighborhood Strategic Plan recommends increased access to Mother Brook and the Neponset River through acquisition of easements along private properties as well as public acquisition of key parcels for open space. The plan includes a Riverfront Planning Overlay District, which provides a buffer zone on either side of the Neponset River and the Mother Brook. Development in that zone must be reviewed by the Conservation Commission and meet district guidelines. The plan highlights expansion plans for Riverwood Plaza to demonstrate the overlay district in action. It also identifies opportunities for Fairmount Greenway to expand river access and attract residents to the area. For example, it could provide more open space in areas with limited access, such as in eastern parts of Hyde Park. The reopening of Doyle Playground, located between River Street and the river, provides opportunities to improve river access for the community.

Boston's Open Space & Recreation Plan states that the Boston Parks and Recreation Department (BPRD) is building an Open Space Acquisition Program informed by planning and public input to address the gaps in the existing open space system, as the park system has not kept up with the increase in population. The Open Space Protection and Acquisition Program will include a Parcel Priority Plan (PPP) to conduct an analysis and information-gathering to provide a framework for decision-making and setting priorities. This plan also notes that current public access to the Neponset River includes Victory

Road Park, Tenean Beach, Port Norfolk Park, and Pope John Paul II Park in Dorchester, Ryan Playground in Mattapan, and Reservation Road Park, Martini Playground, the Neponset River Reservation at the Neponset Valley Parkway, and Mill Pond Reservation in Hyde Park. In Dorchester, the plan states that significant open-space opportunities could be realized through incremental improvements to the Neponset River corridor and the ongoing projects on Columbia Point. Mattapan also finalized PLAN: Mattapan, a separate larger neighborhood master plan, in May 2023. This community-driven plan was developed in conjunction with the Boston Planning & Development Agency (BPDA). It emphasizes the river's role in promoting healthy environments, preparing for climate change, mobility and strengthening neighborhood identity. This plan works in conjunction with the City of Boston's overall Open Space & Recreation Plan.

Milton's Master Plan includes increased access to the Neponset River and an enhanced sense of "being on the water" among its top recommendations. It considers actions such as formation of a task force to increase river awareness, river cleanup efforts, invasive plant species control, and mitigation of brownfields and other hazardous waste sites. The plan also mentions that the Neponset River Watershed Association and Conservation Commission will develop a Superfund plan to clean up contaminants in the river, to increase community awareness regarding the Neponset River waterfront. It also discusses expanding biking and pedestrian opportunities by increasing public access to the river and supporting the work of DCR and the Neponset River Watershed Association to expand the Neponset River Bike Trail/Greenway. Milton's Bicycle and Pedestrian Master Plan recommends closing gaps in the Neponset River Greenway along Truman Parkway and connecting the Greenway to Readville Station.

Stakeholder Involvement and Reuse Goals

Previous EPA Community Involvement

EPA is committed to engaging area communities throughout Superfund investigations and cleanup. In October 2021, EPA held a virtual public meeting to discuss the Site's proposed NPL listing. After EPA finalized the Site's listing on the NPL in March 2022, EPA hosted a virtual public meeting in June 2022. In Summer of 2022 and early Winter of 2023, EPA conducted virtual interviews and focus groups to develop the Community Involvement Plan (CIP). EPA shared a draft of the CIP with area communities for review and comment in spring 2023. Feedback from community meetings and workshops is also incorporated into the CIP.

In November 2022, EPA hosted three Superfund workshops in Milton and Boston's Mattapan and Hyde Park communities. The Milton workshop offered a hybrid Zoom option for attendees from Boston and Milton wishing to attend virtually. EPA has also coordinated with the Massachusetts Department of Public Health to put up more fishing advisory signs around the Site to keep the public safe and well informed. Starting in 2023, EPA is also working with community members to understand local reuse priorities for the Site. A more detailed discussion of the CIP focus group input and the Superfund Workshop series is described in the paragraphs below.

Community Involvement Plan Focus Group Input

During the interviews and focus groups, community members and stakeholders shared their concerns and perspectives about the Site and the area, including the cleanup's burden on residents, river access and safety, health and ecological concerns, preferred methods of communication, community

involvement and partnerships, information needs, equity and environmental justice, site reuse, and agency coordination and transparency.

Superfund Workshop Series

The Superfund workshops took place through November of 2022, at the Council on Aging in Milton, at the Mildred Avenue K-8 School in Mattapan and at BCYF Hyde Park Community Center in Hyde Park. Workshop goals included:

- Provide an opportunity for the community to meet the EPA site team, EPA Headquarters planning staff and EPA's partners.
- Share information about the Superfund process with the community.
- Provide the community an opportunity to share concerns and expectations with EPA and EPA's partners.
- Help the community learn about how to get involved and stay involved in the Superfund process.

A total of 208 community members attended the workshops, the majority of which attended virtually (67%). A total of 33 attendees completed the workshop feedback forms. A scale from 1 to 6 was utilized, "1" meaning "not at all satisfied" and "6" meaning "very satisfied". The overall satisfaction of the three workshops based on this scale was 4.8. Based on the community feedback forms, the most valuable part of the workshop included:

- Overview of the process and emphasis on community engagement
- Being open, honest, realistic
- Highly informed team
- EPA ability to listen
- Expression of EPA commitment and setting appropriate expectations
- Engaging the community
- Timelines
- Opportunities and invitations to for community to speak and EPA to listen to community
- Information for how to involve individual neighborhood and respective associations
- Knowledge that the community involvement plan is a living document
- Meeting the EPA staff and project stakeholders

People also expressed interest in pursuing a Technical Assistance Grant (TAG) and establishing a Community Advisory Group (CAG) for the Site. These community-based tools, funded by resources from EPA, provide ways for community members to discuss their needs and concerns related to the Superfund decision-making process. In turn, EPA benefits from better-informed decision making for the Site's cleanup. These tools help ensure that EPA is well informed regarding community preferences for site cleanup and remediation.

2023 Focus Group Interviews

In March and April 2023, EPA's Superfund Redevelopment Program and Region 1 conducted virtual focus-group interviews with local residents and community groups to identify priorities and concerns related to the Site, including goals and concerns related to future development in the area.

- Expand opportunities for recreational uses and increase access to the river: provide more boat launching points, bike trails, small parks, dog parks, river overlooks and seating areas, and extend the Greenway trail.
- Increase access to parks and open space in Mattapan and eastern parts of Hyde Park that currently have limited open-space access.
- Provide access from neighborhoods to an expanded network of trails along the river in Hyde Park and Mattapan through connections such as the West Street Urban Wild, Doyle Park, Riverside Square, the Shops at Riverwood (Hyde Park) and Ryan Playground (Mattapan).
- Remove the T&H Dam and possibly the Baker Dam.
- Expand trail access upstream from Mattapan Square – opportunities identified include the proposed Edgewater Trail, the proposed Osceola Street Bridge, the trail plan connecting the West Street Urban Wild and Doyle Park.
- Identify reuse opportunities for the privately owned Milton Falls property next to the T&H Dam in Milton. Both housing and recreational uses were identified as potential future uses. Participants also noted that the location is a key spot along the river for recreation access and could also be a good cleanup staging location for EPA. Due to the configuration of the rail line, road networks and T&H Dam, the property has access challenges that would need to be addressed.
- Explore housing as a potential reuse option for the Lewis Chemical site.
- Address concerns about the extent and intensity of contamination, ongoing dumping and potential disruption when remediation takes place.
- Consider remediation as an opportunity to improve and repair the stream channel and stream habitat along the banks, floodplains, wetlands and riverbeds.

Several groups expressed interest in working with EPA on outreach efforts. Stakeholder groups are coming together as part of the Lower Neponset Neighborhood Association for River Access. It includes neighborhood associations in the Mattapan and Hyde Park neighborhoods such as BelNel, Edgewater, Riverside and Rosebery Ruskindale, as well as local and regional partners, including the Southwest Boston Community Development Corporation and the Neponset River Watershed Association.

Figure 17. Stakeholder Input: Map Notes from the 2023 Interviews.

Summary of Stakeholder Reuse Goals to Date

- Participants anticipate that current commercial, residential and community facilities in the area will remain in continued use.
- Participants share common interests related to new uses and improvements to properties next to the river, including:
    - Increased opportunities for recreation on and next to the river, such as boating, fishing, swimming, connected trails and green spaces.
    - Improved access to areas along the river to connect Hyde Park and Mattapan neighborhoods that lack access to public open space.
    - Increased access to views and recreation opportunities on the river for all – there is a need for more wheelchair accessible features in future trails and open-space facilities.
    - New river access features such as boat ramps, parking, bike racks, restrooms, signage in multiple languages, and ADA-accessible trails and amenities.
- Local government representatives indicated shared interest in:
    - Increased river access and new pedestrian connections and crossing points.
    - Coordination of future redevelopment opportunities in line with community priorities and with DCR and EPA input.

    - Further engagement with community stakeholders to refine future land use goals and priorities.
- DCR priorities identified to date include:
    - Providing opportunities for recreation, outdoor fitness and engagement with nature.
    - Increasing the number and frequency of river crossing points.
    - Improving transportation and pedestrian safety.
    - Expanding recreation opportunities through projects such as the Edgewater Trail.
    - Enhancing environmental equity and health benefits.
    - Improving the ecological value of the river corridor.
- Participants generally noted a need for more and future opportunities to discuss site cleanup and ways to provide feedback about anticipated future uses and redevelopment.
- Community participants supported the creation of a CAG to assist with information sharing about site-related activities, future river access and open space plans, and community concerns that come up during the Superfund process.

Reasonably Anticipated Future Land Uses

The goal of this Reuse Assessment is to provide background information and identify current land use, ownership and demographic considerations, and stakeholder perspectives at the Site to identify reasonably anticipated future land uses (RAFLU). RAFLUs can include industrial, commercial, residential, and open space uses, and provide guidance for EPA's cleanup decision-making process and inform land use planning activities by state and local governments and other interested parties.

Reasonably anticipated future land uses (RAFLUs) at the Site vary along the length of the river. Overall, future uses are expected to generally reflect current zoning and existing land uses, but there are areas where future land use is uncertain and there are needs for further discussions and targeted stakeholder input. At Superfund sites, EPA considers current and potential future uses during sites' remedial investigations and feasibility studies and during remedy selection and re-evaluates land use conditions during five-year reviews of site remedies. Landowners and local governments are the key decision-makers regarding land use and future stewardship of properties at sites.

Continued/Ongoing Land Use Assumptions – Along the 3.71-mile length of the study area, current land use and zoning designations include single- and multi-family residential housing, commercial businesses, community facilities, including government facilities and public uses, public-service uses such as rail, transportation and flood-control infrastructure and open space/recreation and conservation uses, and vacant land.

Increased Recreation, Open Space and Public Access – Vacant and underused areas along the river offer potential opportunities for increased access to the river. Master plans for area neighborhoods and the river anticipate expanded trail networks and more pocket parks and identify the need for strategies to remove access barriers to the river, open space and recreation opportunities.

Planned Redevelopment Considerations – Ongoing discussion and coordination will likely be needed in the near term and over the long term between EPA and local landowners, neighborhood associations, municipalities, state agencies, community organizations and other parties regarding future land use and development plans for areas next to the Site. Based on information evaluated to date, these areas include:

- The Lewis Chemical site
- The West Street Urban Wild
- Doyle Park
- T&H Dam
- The Milton Falls property
- The proposed Osceola Street pedestrian bridge
- Edgewater Trail
- The Blue Hill Avenue/Mattapan MBTA Station
- The Baker Dam area
- Riverside Square

Equitable Development Considerations

The data analyzed in the report's Population and Demographic Considerations section above can help guide future discussions focused on equity and equitable development at the Site. These findings can help EPA, other agencies, local governments and community organizations identify areas of concern/risk to facilitate targeted conversations about the disparity between the allocation of river access and park resources among the four communities near the Site.

Sample discussion topics for future stakeholder engagement activities are below.

- Making the river and green spaces more accessible for everyone.
- Avoiding and discouraging the displacement of current residents.
- Making decision-making and planning processes more equitable and inclusive.
- Exploring types of community benefits and the tools needed to ensure accountability in reaching goals.
- Utilizing the site as an educational space with exhibits or materials that can support local career development and environmental education initiatives, as well as explain historical uses and activities that led to the need for cleanup.

Conclusions

The findings of this reuse assessment provide a baseline evaluation of current and potential future land uses at the Site based on land use conditions, local demographics, community future land use plans and stakeholder input. The assessment is designed to inform EPA's activities at the Site and local stakeholders' ongoing planning efforts. Future revisions and updates to the reuse assessment may be warranted as the Site's remedial investigation and feasibility study provide more information about site conditions and cleanup options.

EPA is conducting remedial investigations in preparation to determine cleanup options. The site includes properties with ongoing uses that are anticipated to continue, as well as areas with new or proposed uses such as trails, river access, infrastructure and development projects. EPA will continue to coordinate with local stakeholders in Hyde Park, Mattapan, Dorchester and Milton as well as state agencies and regional partners regarding planned uses as well as EPA's potential cleanup plans. This reuse assessment can help with ongoing coordination and may need additional updates as cleanup and redevelopment plans are refined.

More Information

EPA Contacts

Natalie Burgo, Remedial Project Manager
617 918 1331
burgo.natalie@epa.gov

ZaNetta Purnell, Community Involvement Coordinator
617 918 1306
purnell.zanetta@epa.gov

Site Information

Lower Neponset River Superfund Site Profile