



2018-2025 Update

# Revere Open Space & Recreation Plan

June 2018

**Prepared for:**

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and Community Development  
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## SECTION 1: PLAN SUMMARY

The 2018-2025 Revere Open Space and Recreation Plan (OSRP) is the culmination of a year of public input, research, and analysis to update the City's OSRP. The document has been prepared to serve as a planning guide for the various City staff, committees, boards, commissions, and volunteer groups in Revere working to support open space and recreation. While acknowledging the financial constraints, dense development, and changing demographics that exist in Revere today, this plan seeks to offer opportunities for improving and adding to the stock of open space and recreation land in the city, as well as for developing programs that meet community goals.

This plan was prepared by the Metropolitan Area Planning Council (MAPC), which is the regional planning agency serving the people who live and work in the 101 cities and towns of Metropolitan Boston. MAPC prepared the plan under the direction of staff from the following City of Revere departments: Community Development, Healthy Community Initiatives, Parks and Recreation, Public Works, and Engineering. During the course of the OSRP update process, MAPC organized a series of focus group meetings, held a public forum, created a survey that was completed by over 400 people, facilitated a public art project, and met numerous times with staff from the City of Revere.

The quality of life for Revere residents and residents of surrounding communities is enhanced dramatically by Revere Beach, Rumney Marsh, and the City's many neighborhood parks and playgrounds. An inventory of these areas is included in this OSRP as both an educational resource and as a base for the Seven-Year Action Plan (Section 9), which highlights open space and recreation priorities for the next seven years. The Action Plan provides detailed steps for achieving the plan's goals and objectives, including the relevant parties responsible, timeframe for achieving the action, and potential funding sources. This OSRP also includes an overview of the history of Revere, its physical development, demographic characteristics, an environmental analysis, and more.

In addition to serving as a roadmap, an approved Open Space and Recreation Plan allows Revere to apply for specific types of grant funding for projects related to open space and recreation. With final plan approval from the Massachusetts Executive Office of Energy and Environmental Affairs (MA EOEEA) Division of Conservation Services (DCS), Revere is eligible for funding opportunities like the Local Acquisitions for Natural Diversity (LAND) and Parkland Acquisitions and Renovations for Communities (PARC) grants, which the City can use for land acquisition and improvement of parks and other open spaces.

The City of Revere has developed five goals on which the OSRP is based:

- Goal 1: Provide recreational opportunities for residents of all ages and abilities.
- Goal 2: Protect and preserve Revere's natural resources.
- Goal 3: Develop facilities and programs that promote fitness and health.
- Goal 4: Improve stewardship of the parks.
- Goal 5: Develop partnerships and engage in regional collaboration to maximize limited resources and develop regional open spaces.

## **SECTION 2: INTRODUCTION**

### **STATEMENT OF PURPOSE**

The purpose of the 2018 Open Space and Recreation Plan (OSRP) is to provide the City of Revere with a blueprint for ensuring that current and future residents have ample opportunities for recreation and access to open space despite financial constraints, dense development, and changing demographics. Because of these challenges, the plan provides a careful analysis of the City's remaining open space land and offers opportunities for improving and adding to the resources in Revere. It also considers open space and recreation from the perspective of environmental justice and equity, an important policy directive from Commonwealth of Massachusetts' Executive Office of Energy and Environmental Affairs (MA EOEEA).

This document is meant to influence policies in Revere around the way that open space and recreation resources are acquired, designed, maintained, enhanced, and programmed. It examines open space's role in providing a site for physical activity, play, and leisure in a dense city, as well as its ecological significance for plants, wildlife, and guarding against climate change. It also considers the historical significance of Revere as home to the first public beach in the United States. The plan is comprehensive in its approach and tries to balance the needs of the community against the fiscal reality of limited funds.

Since 1992, the City of Revere has invested heavily in the restoration and rehabilitation of its existing parks and the construction of new ones. This has been made possible through careful planning and significant public grants. The City continues to look for opportunities to improve its open space and recreation resources for all generations and to meet the needs and desires of its diverse population. Through this OSRP update, the City will remain eligible for grant funds from the Division of Conservation Services for land acquisition and park improvements.

### **UPDATES SINCE THE LAST PLAN**

The City of Revere has made many updates to its open space and recreation facilities since the last OSRP was completed in 2010. Revere added a dog park, Paws & Play, to its roster, and in 2015, the City completed a \$7.5 million renovation of Harry Della Russo Stadium. Equipped with a new fieldhouse with bathrooms and locker rooms, the stadium includes a regulation track, tennis courts, basketball courts, tot lot, and sound system. The facility replaced a decaying stadium at Hill Park, and a new tot lot was constructed for the Hill School.

The City has also upgraded a number of neighborhood parks and school-based facilities and is in the process of improving more. Championed by the Revere on the Move Program a collaboration between the Healthy Community Initiatives Department and the MGH Revere CARES Coalition, the City has adopted a community-led model of park planning and construction. When funding becomes available and a park has been prioritized for updates, City staff work with the neighborhood resident groups (of which there are nine in

the city) to determine what facilities and equipment they want to see at their area parks and schools. Residents also take part in the actual construction of facilities through community-builds which bring together resident volunteers and city staff to transform play spaces over a weekend. Through this process, Revere on the Move has renovated seven playgrounds.

*Students Parading at Della Russo Stadium*



*Community Build Project at Lincoln School*



Through a partnership with Kaboom!, Jet Blue, and The Neighborhood Developers, a 2013 community-build constructed a new playground at Costa Park in the Shirley Avenue neighborhood. In 2014, through a grant from the Common Backyard Program, a community-build completely renovated the playground at Louis Pasteur Park in the Beachmont neighborhood. The tot lot at Liberty Park in North Revere was updated in 2015.

Oak Island Park was completely renovated in 2016 with a Parkland Acquisition and Renovations for Communities (PARC) grant from EOEEA. A community-build constructed a new playground, and the City added a shade trellis and replaced the street hockey rink with a soccer turf field.

*Mural at Oak Island Park*



In terms of the school-based facilities, the City had a community-build to construct a new tot lot at Frederick's Park at the Beachmont School in 2015 with Child Safety funds. The following year, a community-build in partnership with Kaboom! and Target constructed another tot lot at Curtis Park at the Garfield School. Most recently, the Lincoln School Park was updated in 2017. A new basketball court was added and a community-build constructed a new playground.

*Community Garden at Gibson Park*





Revere's First Community Garden, which is located at the corner of East Mountain Ave and School Street, opened in the summer of 2012 with 15 plots. In 2015, an additional 15 plots were added. Today, there are 30 plots assigned to residents, special needs classes at Revere High School, and local nonprofits. The Gibson Park Community Garden, located in the Riverside and Point of Pines neighborhood of Revere, opened in June 2017. It has 17 plots, three of which are handicap accessible.

The City of Revere is currently in the process of updating Harmon Park in North Revere, utilizing a PARC grant to construct a new playground. This park is a stop along Revere's portion of the Northern Strand Community Trail. The City recently received a grant from EOEEA to complete plans to pave the one-mile segment of the regional trail.

Finally, Revere recently was awarded a PARC grant to update Gibson Park. This funding will allow the City to construct a new playground, improve cracking walkways, refurbish the ballfield, and ideally create a connection to the Pines River waterfront. The tennis courts at Gibson Park were updated in 2011.

## PLANNING PROCESS AND PUBLIC PARTICIPATION

The Metropolitan Area Planning Council (MAPC) was hired in 2017 to prepare this plan under the direction of the City of Revere. MAPC worked with the City to develop a scope of work that met the State guidelines for approval of an OSRP and was responsive to the City's needs. The project was funded primarily through a grant to the City of Revere from MA EOEEA's Gateway Cities program. MAPC contributed additional grant funding to incorporate Arts & Culture and Public Health elements into this project, beyond what traditionally appears in an OSRP.

This work kicked off on May 30, 2017 with a tour of Revere's natural and recreational resources. The group of MAPC and City of Revere staff visited sites such as Revere Beach and neighborhood parks while discussing the needs of each site and its potential for improvement. Following the tour, MAPC held its first meeting with City staff to discuss the process and priorities for updating the OSRP. Staff agreed that an online survey would be the most effective means of capturing community input about open space and recreation resources, in addition to holding specific focus group meetings and a public forum.

The online OSRP survey, which was available in both English and Spanish languages, launched on July 17 and remained open until March 12, 2018. During that time, over 400 Revere residents completed the survey, which asked respondents to describe and rank their priorities about open space. Respondents were also asked to identify their use of facilities and barriers to accessing them, select what recreational activities and programs they currently participate in, and which ones they wish existed in Revere. The survey asked demographic questions to determine if survey respondents matched the demographic makeup of the city.

Information about the survey along with a link to complete it was distributed to Revere residents through the local nonprofits and community groups, on the City website and social media pages, through the School Department email listserv, and by tabling at the Revere

Fall Festival. In order to incentivize residents to take the survey, MAPC randomly gave away two \$25 gift certificates to Kelly’s Roast Beef to respondents who provided their contact information.

On November 7, MAPC and Revere staff conducted an Americans with Disabilities Act (ADA) Access Self-Evaluation of all the parks and open spaces in the City managed by the Parks & Recreation Department. The assessment helped determine how accessible Revere’s open space properties and programs are to the elderly and people with disabilities. The findings of the ADA Access Self-Evaluation informed the suggestions put forward in the ADA Transition Plan (see Appendix).

To learn more about the needs of specific stakeholder groups, MAPC and the City held a series of five focus group meetings. These are listed in Figure 1, and the findings from these meetings are described in Section 7: Analysis of Needs.

Figure 1: Focus Group Meetings

Stakeholder Group	Date	Purpose of Meeting
School nurses and public health officials	11/11/2017	Understand health issues facing children in Revere; discuss ways open space can be used to promote good health outcomes
Seniors	12/4/2017	Learn ways that seniors are using open spaces in Revere, from both a physical and programmatic perspective; discuss ways open space can be made more accessible
Disability community and advocates	12/12/2017	Understand how parks and recreation programs can better serve the needs of people living with both physical and mental disabilities
Shirley Avenue residents and stakeholders	2/13/2018	Learn ways Shirley Avenue residents utilize open space and recreation resources in their neighborhood/city; discuss how culture of neighborhood can be integrated into open spaces in the city; discuss ways open space can contribute to better health outcomes and promote equity
Representatives from arts, culture, and beautification committees	3/6/2018	Understand arts and cultural scene in Revere; discuss opportunities for integrating arts into open spaces

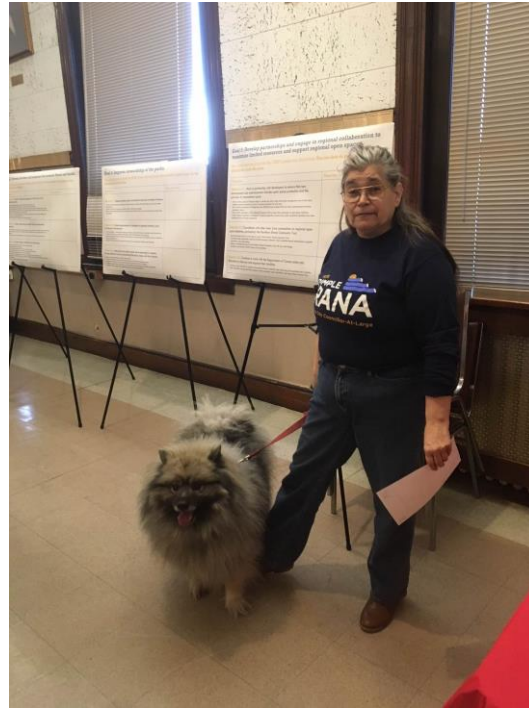
The Revere Open Space and Recreation Plan culminated with a community forum on April 17, 2017 at Revere City Hall. After time for mingling and refreshments, Elle Baker, Revere on the Move Neighborhood Organizer, welcomed attendees and revealed one of multiple panel boards painted by Revere resident and artist, Deb Cutulle, that will make up the mural on the underpass at Sargent Street. The artist spoke briefly about the project, which depicts the farms and pastoral scenery that once dominated Revere’s landscape, and the

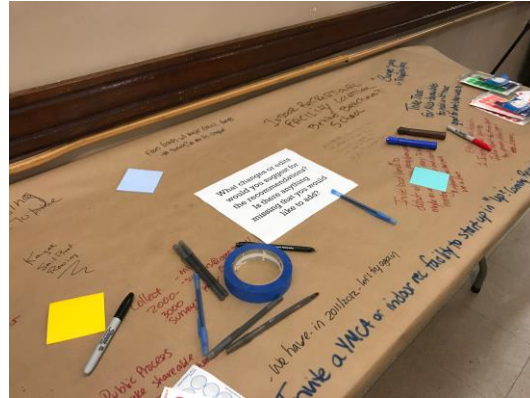
important role that art plays in activating public spaces and capturing the history and culture of a place.

Next, MAPC gave a presentation which introduced the Revere Open Space and Recreation Plan; provided an overview of the city’s demographics, land use, and open space and recreation features; showed key results from the OSRP survey; and introduced the plan’s recommendations. Following the presentation, the group broke out into six open house stations that attendees could visit in any order:

1. Survey Update – Attendees could see the full results of the online OSRP survey and comment on its findings.
2. Prioritize the Recommendations – Using post-it notes and sticky dots, participants could prioritize their top goals and objectives for the OSRP and provide comments.
3. Arts & Cultural Preferences – Attendees could use post-it notes and sticky dots to show what arts & cultural elements they would like to see in Revere’s open spaces and where they should be located.
4. Decorate the Vision Tree – Participants could view the public art project facilitated by MAPC’s Artist-in-Residence and add their own art to the tree by decorating a leaf template with their version of a “perfect day in the park.”
5. Health Behaviors & Outcomes – Attendees could learn about health behaviors and outcomes in Revere and participate in mapping exercises to identify what about Revere keeps people healthy or threatens resident health, as well as prioritize locations for more spaces for walkers/bikers, trees, and growing food.

Revere OSRP Community Forum





The forum was promoted through Revere’s nonprofits and community groups, on the City’s website and social media pages, and in the local newspaper. In addition, everyone who provided their email address for the online survey was invited to the event. MAPC offered

## ARTS & CULTURE IN OPEN SPACE AND RECREATION

### Background

Recreation, defined by the Merriam-Webster Dictionary as “refreshment of strength and spirits after work; also: a means of refreshment or diversion,” is fundamentally intertwined with cultural practice and creative energy.<sup>1</sup> The activities that people engage in together during their leisure hours are the practices that establish shared culture and social cohesion, and open space and recreation resources should support the full range of these activities. Some common recreation activities supported by open space are understood as both cultural practices and traditional recreation activities. Bocce courts, music festivals, and cultural heritage festivals are examples of ways that arts, culture, and recreation intermingle in urban parks today. In Revere, the heyday of Revere Beach brought together a wide variety of arts, culture, and recreation from dance halls to live music to amusement parks to swimming and beach activities. Planning parks with adequate electricity, lighting,

<sup>1</sup> “Recreation,” Merriam-Webster Dictionary online, <https://www.merriam-webster.com/dictionary/recreation>.

amplification, and amenities to support music and dancing is one way to expand the creative recreation capacity of parks and open spaces today.

The cultural significance and interpretation of parks and open space also varies among different communities' cultural heritages. Learning how parks and open spaces can better support immigrants' cultural practices is a growing trend in park planning. In St. Paul, Minnesota, the Parks and Recreation Department is building new facilities for games and sports played among their Hmong and Southeast Asian immigrant communities.<sup>2</sup> In eastern Massachusetts, Native American tribes continue to face barriers to restoring their own cultural practices and relationship to the natural environment. Organizations such as Gedakina, Inc. "endeavor to strengthen and revitalize the cultural knowledge and identity of Native American youth and families from across New England, and to conserve traditional homelands and places of historical, ecological and spiritual significance."<sup>3</sup>

Public art in parks and open space helps embed cultural meanings in open spaces. Monuments and memorials in parks and open spaces honor community histories and celebrate cultural heritage. These memorials often serve as a landmark for community gatherings and memorial services; however, they can also illuminate and exacerbate rifts among local communities as seen in efforts to remove Confederate statues from public parks. Beyond memorials, public art can enliven and strengthen parks and open space in many ways. Temporary art that is removed and replaced over time can respond to changing community demographics. Murals can add color and vibrancy to outdoor spaces; landscape art can be both beautiful and functional as green infrastructure to manage water and drainage; sculptural seating, mosaic walls, and paths integrate art and meaning into park amenities. Each of these elements can be developed through partnerships among artists and community members, and each project represents a potential opportunity for engaging community members in creative recreation.

#### Arts & Culture in this OSRP

Through funding from MAPC's Arts & Culture Division, MAPC and the City of Revere were able to create a community-engaged public art initiative—"The Vision Tree"—that encouraged reflective thinking about what people want to see in their public open spaces. At the intersection of art, public health, humanities, and stewardship of public spaces, this project opened up opportunities for Revere residents to participate in a public art project by bringing leaves to life through art.

Residents were asked to fill a leaf design with a depiction of their "perfect day in the park." Revealed at the community forum, each leaf displays these ideas about the best of what parks in Revere can offer in illustrations and words. Creating the leaf content gave residents an opportunity to reflect on and envision parks that support a healthy and active community. The template for the leaf was offered to the community in the local newspaper, in community centers, and in schools for the public to create their own leaf designs. These paper templates were collected, trimmed, and affixed to the wooden leaves hanging from the branches. The structure of the tree was designed and built by Carolyn Lewenberg, MAPC Artist-in-Residence.

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<sup>2</sup> Kirk, Mimi (July 2017), "The City Parks Welcoming Immigrant," City Lab, [www.citylab.com/life/2017/07/how-cities-are-making-parks-more-welcoming-for-immigrants/532263/](http://www.citylab.com/life/2017/07/how-cities-are-making-parks-more-welcoming-for-immigrants/532263/)

<sup>3</sup> Gedakina, Inc. "Our Mission," <http://gedakina.org/>

Constructing “The Vision Tree”



## HEALTH IN OPEN SPACE AND RECREATION

### Background

Abundant and accessible parks and open space are not just city amenities, they are powerful determinants of resident health. While access to quality open spaces promotes increased physical activity, the health benefits of parks and playgrounds extend beyond encouraging exercise.<sup>4</sup> Green, open space can improve cardiovascular health through improved air quality and reduced stress.<sup>5</sup> Open space can also facilitate nature experiences and social interaction, both of which have a positive impact on general mental health.<sup>6,7</sup> The role of open space on neighborhoods and short- and long-term health outcomes are broadly illustrated in Figure 2.

Open space influences population health via a cascade of environmental, individual, societal, and community factors. Yet, the impact of these environmental resources is

<sup>4</sup> Hartig, T., Mitchell, R., de Vries, S., & Frumkin, H. (2014). Nature and Health. *Annual Review of Public Health*, 35(1), 207–228. <https://doi.org/10.1146/annurev-publhealth-032013-182443>

<sup>5</sup> Gascon, M., Triguero-Mas, M., Martínez, D., Dadvand, P., Rojas-Rueda, D., Plasència, A., & Nieuwenhuijsen, M. J. (2016). Residential green spaces and mortality: A systematic review. *Environment International*, 86, 60–67. <https://doi.org/10.1016/j.envint.2015.10.013>

<sup>6</sup> Hartig et al 2014

<sup>7</sup> Bowler, D. E., Buyung-Ali, L. M., Knight, T. M., & Pullin, A. S. (2010). A systematic review of evidence for the added benefits to health of exposure to natural environments. *BMC Public Health*, 10, 456.

<https://doi.org/10.1186/1471-2458-10-456>

determined by their accessibility, quantity and quality.<sup>8</sup> People with good access to large, attractive recreation spaces are more likely to be physically active.<sup>9</sup> Parks in disrepair are likely to not be visited and can contribute to increased crime and perceived unsafety.<sup>10</sup> A large quantity of spaces with trees, shrubs, and other vegetation will have broader impacts on air quality.<sup>11</sup> In an urban environment, having many green spaces that provide shade and a place for water to drain can mitigate heat waves and flooding due to storms.<sup>12</sup>

Figure 2: Connections between Open Space and Health Outcomes



Source: MAPC, Adapted from Villanueva et al 2015

Critical to ensuring the well-being and health of all residents is enhancing the health promoting characteristics of parks, open spaces, and recreation. Municipal policy determines the acquisition, management, and improvement of these resources. Thus, where possible, municipalities should use their Open Space and Recreation Plan to identify and enhance the health promoting characteristics of these important environmental assets, especially as it relates to those that experience the highest burden of chronic disease.

Public Health in this OSRP

Through funding from MAPC’s Public Health Division, this project was able to inventory how Revere’s natural assets, including its parks, open spaces, and recreation facilities, are contributing to the health of city residents. Understanding this connection is important, not

<sup>8</sup> Lee, A. C. K., & Maheswaran, R. (2011). The health benefits of urban green spaces: a review of the evidence. *Journal of Public Health*, 33(2), 212–222.

<sup>9</sup> *Ibid*

<sup>10</sup> Bedimo-Rung, A. L. (2005). The Significance of Parks to Physical Activity and. *American Journal of Preventive Medicine*, 28(2S2), 159–168.

<sup>11</sup> Hartig et al 2014

<sup>12</sup> Villanueva, K., Badland, H., Hooper, P., Koohsari, M. J., Mavoa, S., Davern, M., Giles-Corti, B. (2015). Developing indicators of public open space to promote health and wellbeing in communities. *Applied Geography*, 57, 112–119.

only because the country is experiencing increasing levels of chronic diseases and morbidity due to preventable disease, but because more and more evidence shows that how we plan and build communities affects the health and wellness of residents.

Public health has often defaulted to trying to intervene with or treat the individual. While this approach has had beneficial effects, they have not been enough to reduce the increase in chronic disease at a community or population level. Research suggests that roughly 60% of our health is determined by social, environmental and behavioral factors shaped by the context in which we live.<sup>13</sup> The Community Health Profile within Section 3: Community Setting looks at health conditions in Revere and considers how policy, environmental, and systems-level change can address challenges and opportunities most effectively. It also considers how certain populations in Revere may experience disproportionate impact due to factors such as geography, ethnicity, income, age, or other characteristics.

## ENHANCED OUTREACH AND PUBLIC PARTICIPATION

Revere is a community with a diverse population, including people of various ethnicities, races, and incomes, as well as a significant immigrant population. The City recognizes such diversity and is dedicated to providing high quality public services and equal access to community amenities throughout the city.

Based on the 2010 Environmental Justice Population data provided by MassGIS, 36 of the 42 Census block groups in Revere are identified as Environmental Justice (EJ) populations. The vast majority of the city's population (87.4%) lives within these census blocks. In Massachusetts, a community is recognized as an Environmental Justice (EJ) community if it contains a block group whose annual median household income is equal to or less than 65% of the statewide median; 25% or more of the residents identify as minority; or 25% or more of households have no one over the age of 14 who speaks English only or very well.

In the course of preparing this plan, the City of Revere and MAPC conducted some broad-based as well as targeted outreach to ensure input from as wide a representation of the City's population as possible. Recognizing that over a quarter of Revere's population speaks Spanish at home, the online Open Space and Recreation Plan Survey was offered in both English and Spanish languages. To promote the survey and reach a diverse audience, it was distributed through all the nonprofit and neighborhood organizations, in addition to being posted on the City's website and social media pages and broadcasted through the local newspaper.

MAPC staff tabled at the 1<sup>st</sup> Annual Fall Festival on Broadway on Saturday, September 23, 2017 to get the word out about the survey. The Fall Festival, a collaboration with the Chamber of Commerce was a community celebration with activities for all ages, including street performers, local food and merchandise vendors, a family zone, a beer garden, and a main stage with musicians and comedians. According to Mayor Brian Arrigo, "We are confident this event will quickly become a beloved annual tradition, and attract lots of foot traffic to Broadway, giving our local businesses exposure. The goal is for this festival to

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<sup>13</sup> McGinnis, J. M., Williams-Russo, P., & Knickman, J. R. (2002). The case for more active policy attention to health promotion. *Health Affairs*, 21(2), 78-93



reflect our community’s pride, and Revere’s ongoing cultural and economic renaissance.” This outreach was a great way to promote the survey to Revere’s diverse community, as the event’s purpose was to celebrate this diversity. The event featured Caribbean/Island drum music, a mariachi band, Brazilian BBQ food, traditional Moroccan games, and more.<sup>14</sup>

Revere Fall Festival



The Shirley Avenue neighborhood is a small, walkable district that contains one of the most ethnically diverse communities in Revere; the neighborhood is also an environmental justice (EJ) community that meets all three of the EJ criteria (see Figure 8). However, Shirley Avenue is generally underserved by park and recreation facilities when compared to other areas of the City, with some residents needing to walk more than 10-minutes to reach a park, and it struggles with poor health outcomes and social determinants of health. Since Revere’s last Open Space and Recreation Plan (OSRP) update in 2010, the City has rebuilt Costa Park, constructed a tot lot at the Garfield School, and made improvements to

<sup>14</sup> “2017 City of Revere Fall Festival,” City of Revere, <https://www.revere.org/fallfestival2017>

sidewalks and other elements of the pedestrian environment. Despite improvements to Costa Park, residents complain that the park is too small and gets too crowded.

As a part of this OSRP update, MAPC and the City of Revere were interested in learning more about how Shirley Avenue residents utilize open space and recreation resources in their neighborhood and city. A focus group with Shirley Avenue residents and other neighborhood stakeholders was held on February 13, 2018 at 525 Beach, an affordable rental housing development for families built by the Neighborhood Developers. The purpose of this focus group was also to explore ways in which the culture and history of Revere and the Shirley Avenue neighborhood can be integrated into open spaces in the city, as well as ways open space can contribute to better health outcomes and promote equity. Vanny Huot, Revere Community Engagement Manager for the Neighborhood Developers, worked with the City of Revere to organize the event and conduct outreach to neighborhood stakeholders.

## SECTION 3: COMMUNITY SETTING

### REGIONAL CONTEXT

The City of Revere is situated in eastern Massachusetts (Suffolk County) and is bordered by Winthrop, East Boston, and Chelsea to the south, Everett and Malden to the west, Saugus and Lynn to the north, and the Atlantic Ocean to the east. It is located about five miles from downtown Boston and covers ten square miles. Water and wetlands make up just over four miles of that total area and are not suitable for development. Revere is located partially within the Saugus River Watershed and partially within the Mystic River Watershed. Figure 3 shows Revere within the context of the Boston Metropolitan area.

For its size, Revere is a more complex community than most. This is due to a variety of factors, including its proximity to Boston and Logan Airport, its multi-cultural and diverse socio-economic population, its older residential neighborhoods and housing stock, and the numerous specialized regionalized facilities within d borders. The city is home to Revere Beach, the first public beach in the United States, which celebrated its centennial in 1996. Though they closed their doors in the early 2000s, Revere was long host to Suffolk Downs Race Track and Wonderland Greyhound Park, regional destinations for horse and dog racing that both opened in 1935. The two sites are now proposed for redevelopment.

Three MBTA rapid transportation stations, including the northern terminus of the Blue Line, are also located in Revere. A fourth sits just over the border in East Boston at Suffolk Downs. Additionally, Revere hosts a multitude of MBTA bus routes, transporting residents to and from various points within the city, as well as surrounding communities and downtown Boston.

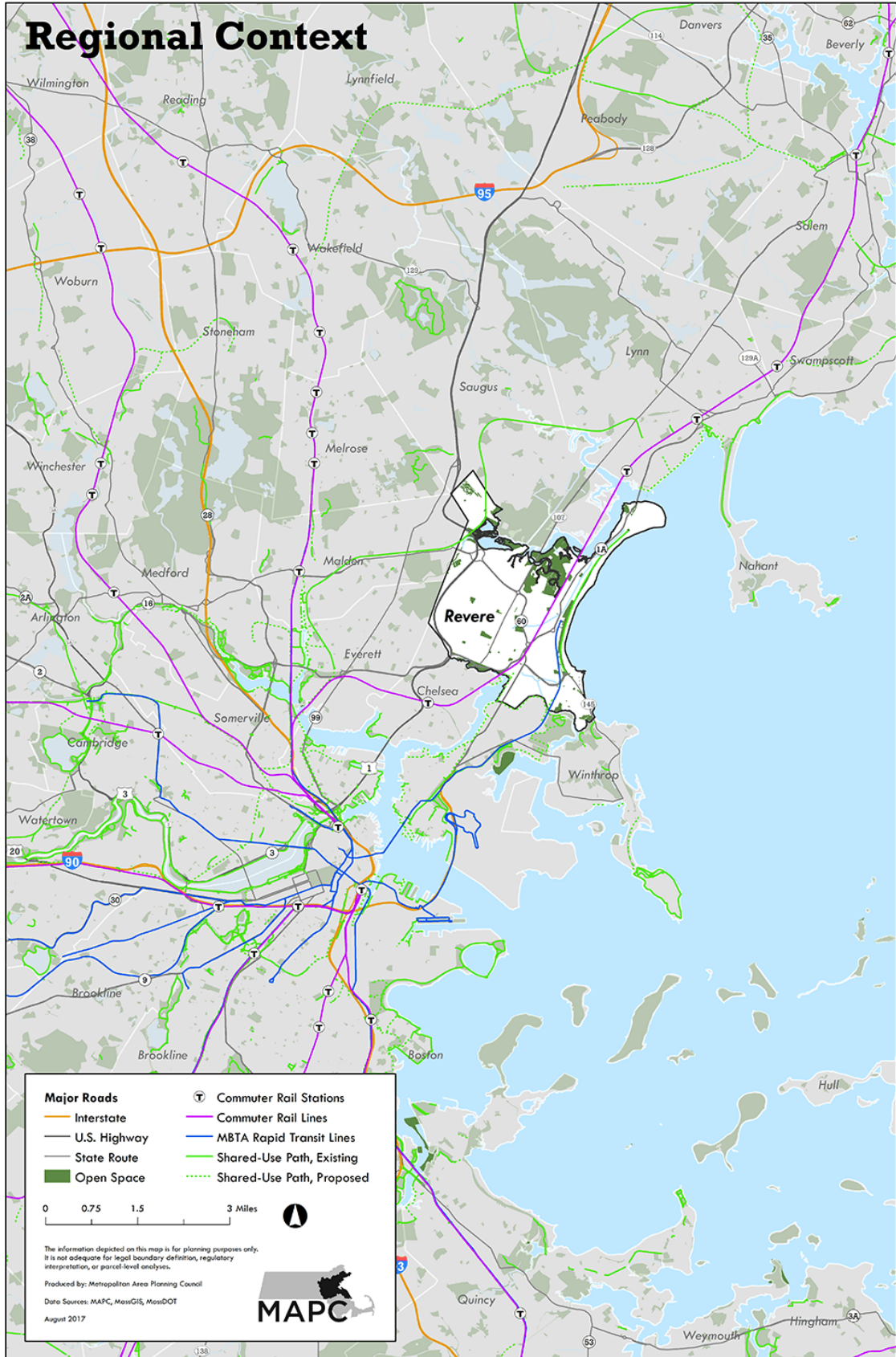
Revere is primarily a blue collar, working-class community, comprised of several distinctly unique neighborhoods drawn together by common bonds. Most of Revere is occupied by well-maintained single-family dwellings, primarily ranch and cape style homes, followed by two- and three-family homes. The School Department serves almost 7,500 students from preschool through 12<sup>th</sup> grade in eleven locations. Revere is home to roughly 1,000 businesses employing over 8,000 people.

#### Regional Planning Context

Revere is one of 101 cities and towns that are served by the Metropolitan Area Planning Council (MAPC), the regional planning agency for the Great Boston region. Council membership consists of community representatives, gubernatorial appointees, and city and state agencies that collaborate around issues of regional importance. MAPC’s professional planners, GIS specialists, demographers, and others provide extensive technical assistance to member communities through the development of comprehensive plans and recommendations in areas of housing, transportation, economic development, public health, environment, and more. In 2008, MAPC adopted a comprehensive plan for the region with goals through 2030 entitled MetroFuture. MetroFuture guides the work of MAPC agency-wide and every project MAPC undertakes works towards reaching these goals.

Many MetroFuture goals are applicable to the 2018 update of the Revere Open Space and Recreation Plan, including:

Figure 3: Regional Context Map



- Goal 3: Brownfields and other polluted sites will be cleaned up and re-used for parks or development.
- Goal 8: Historic resources will be preserved and enhanced.
- Goal 9: The region's landscape will retain its distinctive green spaces and working farms.
- Goal 11: The region will be prepared for and resilient to natural disasters and climate change.
- Goal 23: All neighborhoods will have access to safe and well-maintained parks, community gardens, and appropriate play spaces for children and youth.
- Goal 25: Most residents will build regular physical activity into their daily lives.
- Goal 62: The region's rivers, streams, lakes, and ponds will have sufficient clean water to support healthy populations of native fish and other species, as well as recreational uses.
- Goal 65: A robust network of protected open spaces, farms, parks, and greenways will provide wildlife habitat, ecological benefits, recreational opportunities, and scenic beauty.

Revere is a member of the Inner Core Committee (ICC), one of eight subregions within the Metropolitan Area Planning Council. The Inner Core Committee is a group of twenty municipalities (Arlington, Belmont, Boston, Brookline, Cambridge, Chelsea, Everett, Lynn, Malden, Medford, Melrose, Milton, Newton, Quincy, Revere, Saugus, Somerville, Waltham, Watertown and Winthrop) that meet regularly to discuss issues of common interest. The ICC is an excellent forum for discussing regional open space issues and opportunities.

### Regional Open Space Resources

There are a number of significant regional open space resources in and around Revere. Revere Beach Reservation is owned by the Commonwealth's Department of Conservation and Recreation (DCR) and is the oldest public beach in America; 2016 marked its 120<sup>th</sup> anniversary. Today, this beach boasts miles of shoreline which attract throngs of visitors every summer. Along the boulevard is a bandstand for summer concerts, a bathhouse, and many shade shelters. Revere Beach is free to visit and is very accessible by public transportation, making it a popular destination for residents from all over Greater Boston. The Revere Beach International Sand Sculpting Competition, an event which draws hundreds of thousands of visitors each year, celebrated its 14<sup>th</sup> anniversary in July 2017.

The Belle Isle Marsh Reservation, under the jurisdiction of DCR, preserves 152 acres of the 241-acre Belle Isle Marsh, Boston's last remaining salt marsh. Belle Isle Marsh is included within the Rumney Marshes Area of Critical Environmental Concern. A unique place to explore, the reservation exemplifies the type of wetlands that once lined the Massachusetts Bay shore. Centuries of flourishing plant life have made the marsh more fertile than the richest farm land. Its protected waters are nurseries to fish and shellfish and are critical habitat for many saltmarsh plants and wildlife that are rare to the Boston area. In addition to the preservation of the natural areas of the marsh, DCR also manages 28 acres of landscaped park with pathways, benches, and an observation tower.

Rumney Marsh is a 600+ acre reservation located within the Saugus and Pines River estuary. This expansive saltmarsh provides habitat for an array of wildlife including

migratory birds and marine life. The reservation also provides recreational opportunities such as boating, fishing, walking, and bird watching. It is designated as an “Area of Critical Environmental Concern” (ACEC).

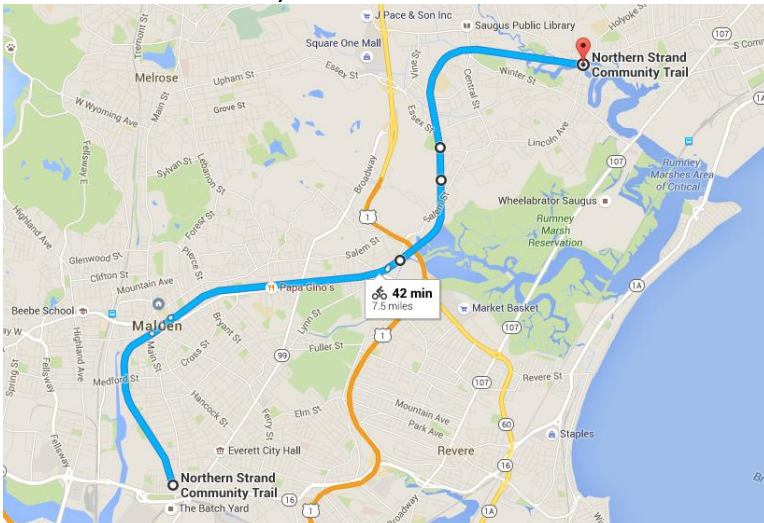
International Sand Sculpting Competition at Revere Beach



Source: Ganley Images

An ACEC is a state-designated critical resource area. The objectives of the ACEC program are to identify and designate critical resource areas, to ensure that actions by state agencies protect and enhance the resources, and to support local and regional actions for the long-term stewardship of ACECs. These resource areas may be nominated by citizens groups, municipal officials, regional or state agencies, or by a legislator and they must be formally designated by the Commonwealth’s Secretary of Environmental Affairs. The Rumney Marshes ACEC also includes Belle Isle Marsh, although the two marshes are not contiguous.

Northern Strand Community Trail Route



The Northern Strand Community Trail is a shared-use path along the old MBTA Saugus Branch rail bed that extends from Everett through Malden, Revere, Saugus, and Lynn. The trail concept was developed by Bike to the Sea, Inc. (B2C), a nonprofit organization that promotes bicycling and bicycle safety in the Malden area. Revere's one-mile segment of the trail opened in 2015 and offers scenic views of Rumney Marsh. B2C is now working on behalf of the City of Revere to help raise funds to pave the trail segment that connects Malden and Saugus. Construction of the Northern Strand Community Trail has been made possible in part due grants from DCR's Recreational Trails Program.

## HISTORY OF THE COMMUNITY

Revere's first inhabitants were Native Americans who belonged to the Pawtucket Tribe and were known as the Rumney Marsh Indians. Rumney Marsh (later to be called Revere) was first discovered by white men when Captain John Smith explored the coast of New England in 1614.

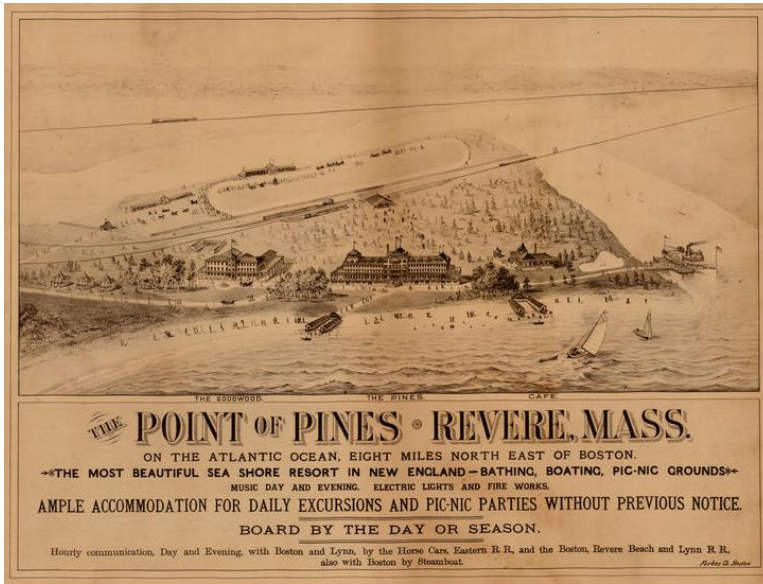
On September 25, 1634, Rumney Marsh was annexed to Boston, but it became part of Chelsea in 1739. The name "Revere" was first established in 1871 after the patriot, John Revere. The use of Revere Beach as a pleasure resort began in 1834 when the first small tavern was built in the Point of Pines for the enjoyment of sportsmen. The completion of the Eastern Railroad in 1838 (later to become the Boston and Maine Railroad) and the Boston, Revere Beach, and Lynn Railroad (the Narrow Gauge) in 1875 signaled the beginning of rapid population growth for the town and the development of the Beach as a summer resort because of the increased accessibility the railroads provided.

By 1881, a company of prominent Massachusetts men formed a company and purchased 200 acres of land in the Point of Pines. They invested \$500,000 in a complete summer resort, hotels, bandstand, racetrack, amusements, piers, and bathhouses. Using gas jets and special globes, they provided gaslight illumination through beautiful arches above the walks and driveways. Over 2,000 people were present at opening ceremonies for the Pines Hotel, considered the largest on the Atlantic Coast at the time.

By 1885, the town had increased to 3,637 people, more than tripling in size over 15 years. By 1890 the population grew to 5,668. From the time of Revere's incorporation as a City in 1915 until the 1970s, Revere's growth continued. The most rapid period of growth and residential development occurred after World War II. Between 1960 and 1980, most of the development that occurred in Revere was on former farmland, much of which was undeveloped in 1960. The land is now completely built up and fully developed.

The Great Ocean Pier was constructed in 1881 along with the opening of the Pines Hotel. By this time, the beach had become a lively and heavily used resort area, but because of the proximity of the railroad tracks to the water at high tide and the number of beach structures, the pier was not safe. The Metropolitan Park Commission (later the Metropolitan District Commission and now the Department of Conservation and Recreation) took over management of Revere Beach in 1896.

Advertisement for the Pines Hotel



Source: Barry Lawrence Ruderman Antique Maps

Wonderland Park opened in 1906, and it was Revere’s greatest attraction. It was situated approximately where the shuttered Wonderland Dog Track is today, not far from the beach. The park was designed to be a fantasyland with Disney-like amusements and events. It lasted only five years, but its impact is still felt today, in name and in the area.

From its inception, Revere Beach was “the people’s beach,” used mostly by the working class and the many immigrants who chose to settle in the area. This tradition continues today as new immigrants and ethnic groups move to the area.

Revere Beach in the 1920s



Source: RevereBeach.com



The beach began to deteriorate in the 1950s, and by the early 1970s, it had become a strip of bars and abandoned buildings. The “Great Blizzard of 1978” proved to be the final death knell for the “old” Revere Beach, as many of the remaining businesses, amusements, pavilions, sidewalks, and much of the sea wall, were all destroyed. The beach was the focus of a major revitalization effort by the MDC and the City of Revere in the 1980s, and was officially reopened in May 1992 with a resanded beach, restored pavilions, and a renovated boulevard. The restoration of Revere Beach reached a high point in summer 1996 with the highly successful Centennial Celebration of the nation’s oldest public beach.

*Damage from the Blizzard of 1978*



Source: [www.blizzardof78.org/revere](http://www.blizzardof78.org/revere)

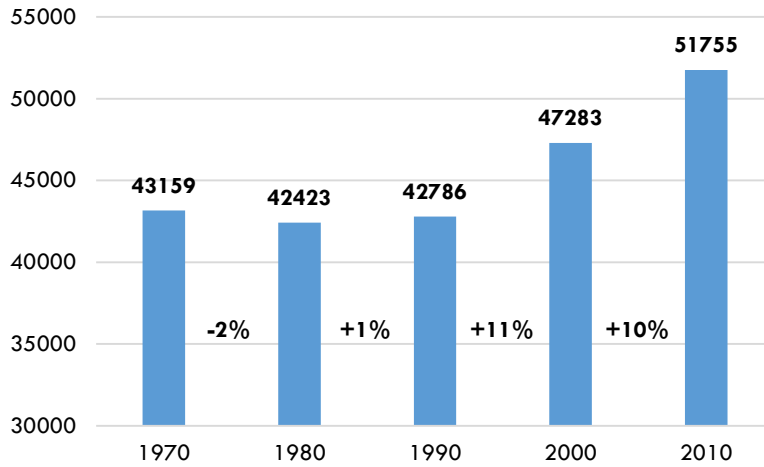
As the result of a professionally conducted study of the City’s recreation and conservation needs in 1977, the City embarked upon a decade-long effort to develop and upgrade its park and recreation system. During this time, an extensive system of parks was developed and improved upon using a variety of funding sources. Unfortunately, financial difficulties in the late 1980s, vandalism, and normal wear and tear resulted in deterioration of most of these parks. Since 1992, the City has invested heavily in the restoration and rehabilitation of its existing parks and the building of new ones.

## POPULATION CHARACTERISTICS

### Population and Projections

As of the 2010 US Census, the population of Revere was 51,755 people, a population density of 5,176 people per square mile. The most recent American Community Survey (ACS) 5-Year Estimates from 2011-2016 put the population at a slightly higher figure of 53,165 people. Between the 2000 and 2010 US Census, Revere’s population increased 9.5%, largely due to immigration (see Figure 4). Revere has a larger population than all neighboring communities besides Boston and Malden.

Figure 4: Total Population



Source: US Census, ACS 2015 5-Year Estimates

The Metropolitan Area Planning Council (MAPC) has prepared population projections through 2030 for the Metro Boston region. These projections are based on two scenarios: Status Quo (SQ), based on the continuation of existing rates of births, deaths, migration, and housing occupancy; and a Stronger Region (SR) that assumes higher population growth, greater housing demand, and a larger workforce. Based on MAPC Stronger Region projections, the population of Revere will increase significantly to 58,567 people by 2020, 66,737 by 2030, and 73,696 by 2040, a total increase of 42% based on 2010 values.

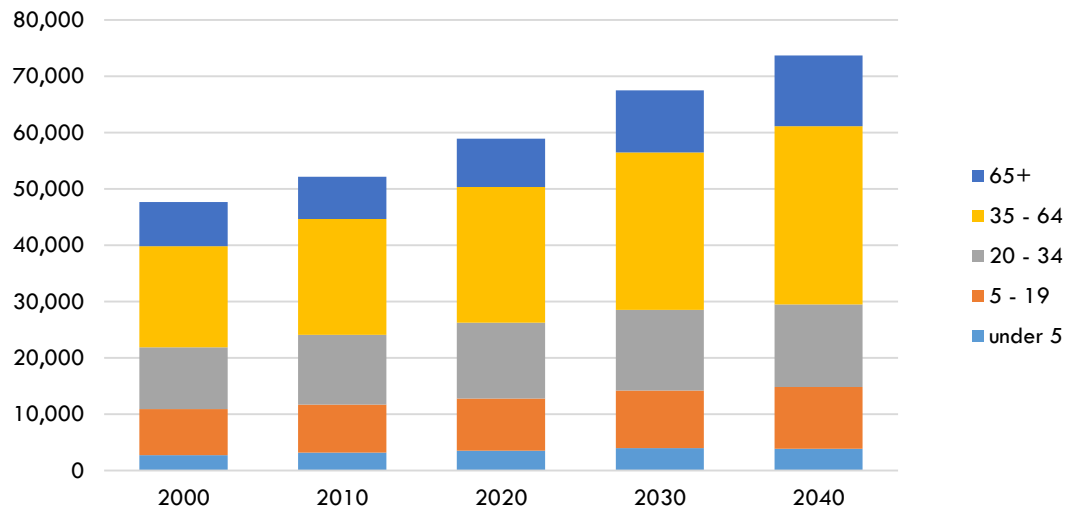
It is projected that Revere residents over the age of 65 will experience the most growth as an age cohort between now and 2040; the senior population is projected to increase 67% from 2010 levels. With a 54% increase, residents between 35 and 64 are expected to experience the next most growth. Growth for the younger age cohorts will likely increase at a slower rate as the city’s population ages as a whole. In fact, the median age of Revere has already increased from 37.6 years old at the time of the 2000 Census to 37.9 in 2010. According to the most recent ACS figures, the median age has increased further to 39.

Figure 5: Population and Projections by Age Table

Age	2000	2010	2020	2030	2040	% Change, 2010-2040
0-5	2,741	3,195	3,575	3,980	3,893	21.8%
5-19	8,199	8,553	9,217	10,244	10,983	28.4%
20-34	10,958	12,346	13,489	14,344	14,648	18.6%
35-64	17,919	20,566	24,095	27,927	31,645	53.9%
65+	7,870	7,520	85,43	11,018	12,526	66.6%

Source: US Census and MAPC SR Projections

Figure 6: Population and Projections by Age Chart



Source: US Census and MAPC SR Projections

### Recreational Needs by Age Group

Most recreation for children is done with parental supervision. For children under five, this recreation tends to occur close to home due to the difficulties of traveling with children, and neighborhood playgrounds often serve this function. This age group also needs structured preschool programs that focus on teaching basic skills. For older children, adults often seek places to take their children for walks or seek programs for their children that provide family recreational opportunities.

Adolescents are typically served recreationally through school and after-school sports programs. This can pose difficulty for those not interested in participating in traditional programs that are structured or involve adult supervision. For adolescents who are interested in being more actively involved in determining their activities, they may prefer programs like rock climbing, adventure programs, skateboarding, hiking, band concerts, cook outs, dances, and more.

The needs of elderly residents are divided between the younger, more active senior citizens and the frail elderly. The frail elderly generally require therapeutic recreational services. More active seniors tend to enjoy walking, golf, bocce, tennis, swimming, and more. It will be especially important for the City to consider the needs of older adults as Revere's senior population grows.

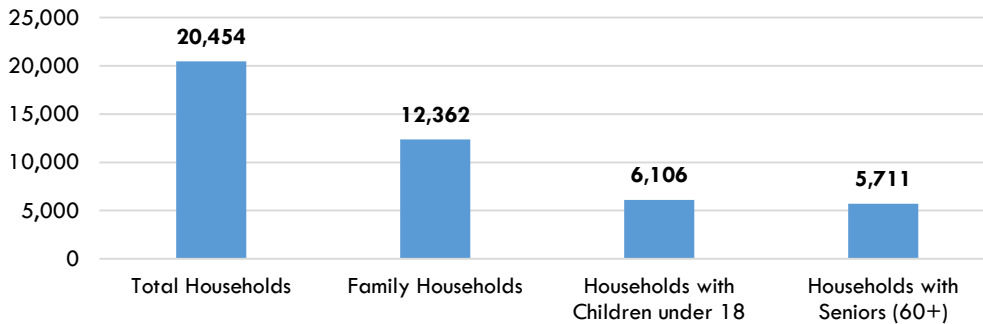
The needs of residents with disabilities also vary. Some residents with disabilities can participate in regular recreational programs without any modifications while others may need some assistance or programs specifically geared toward those with disabilities. Physical barriers are a key factor for consideration and are evaluated in the ADA Access Self-Evaluation and Transition Plan appendix of this plan. Along with the evaluation, the appendix also includes recommendations for improving accessibility by removing physical barriers and enacting programmatic changes, such as training staff on how to work with disabled residents.

Households and Projections

At the time of the 2010 Census, there were 20,454 households in the City of Revere. This marks a 5% increase in the number of households since 2000 when that figure was 19,463 households. MAPC projects that the number of households in the city will continue increasing as population grows. Under the Stronger Region scenario, Revere may see the number of households grow to 23,708 in 2020 and 27,513 in 2030, an increase in households of 16% and 35% over 2010 values, respectively. According to ACS 2011-2016, the average household size for the City of Revere is 2.61 people, slightly higher than the Massachusetts average of 2.54.

Families make up 60.4% of occupied housing units, though these figures differ for renter- and owner-occupied units. Just over 70% of owner-occupied units contain family households, compared to 51.4% of renter-occupied units. A nonfamily household is one where the householder is living alone or with nonrelatives only. Compared to statewide rates, Revere has a slightly lower percentage of family households, though it has a higher percentage of family households in renter-occupied units. This reflects Revere’s overall housing tenure compared to the State’s: while rental units make up 51.9% of Revere’s housing stock, they make up only 37.9% of the housing stock in Massachusetts.

Figure 7: Household Types in Revere



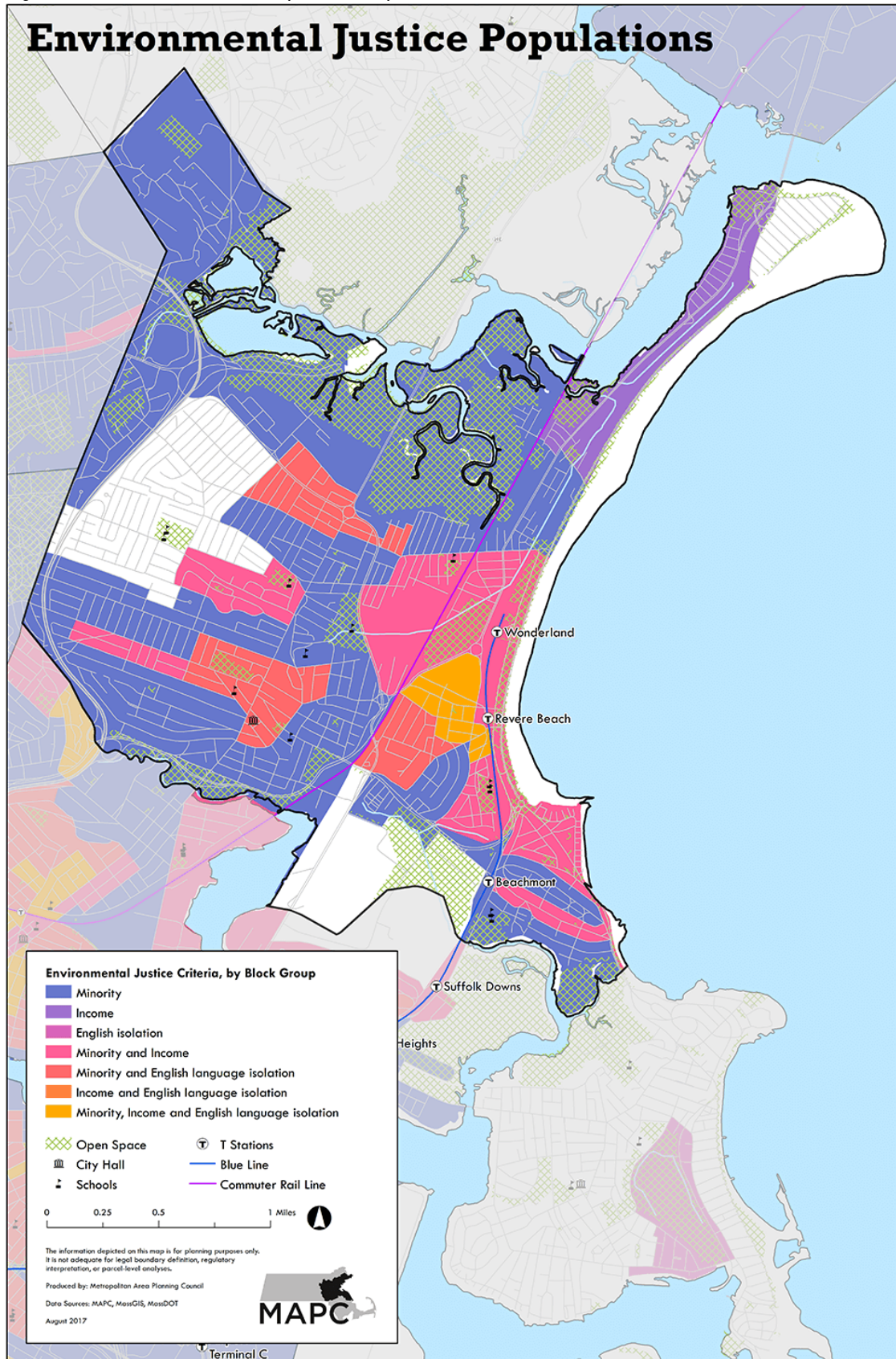
Source: US Census 2010

Environmental Justice Criteria

In Massachusetts, a community is recognized as an Environmental Justice (EJ) community if it contains a block group whose annual median household income is equal to or less than 65% of the statewide median; 25% or more of the residents identify as minority; or 25% or more of households have no one over the age of 14 who speaks English only or very well. These categories are based on data from the 2010 US Census. EJ communities often experience a disproportionate share of environmental burdens such as pollutants and contaminated lands. At the same time, these communities may lack environmental assets in their neighborhoods such as parks and green space.

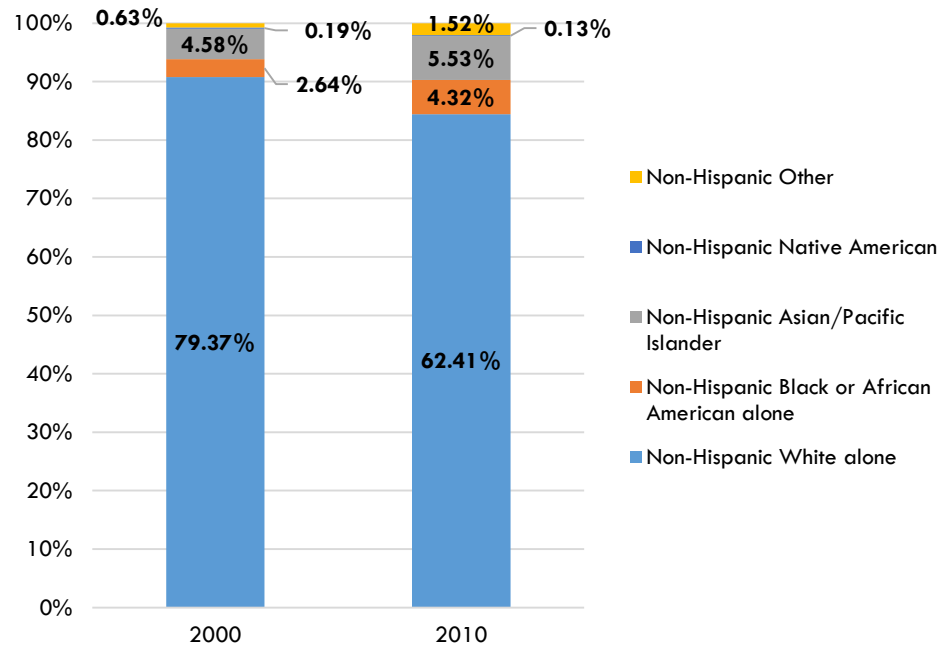
Figure 8 shows the distribution of Census block groups throughout Revere that meet EJ criteria. Of the 42 block groups in the city, 36 meet EJ criteria in one or more ways. About 45,250 Revere residents live in one of these block groups, or 87.4% of the 2010 population.

Figure 8: Environmental Justice Population Map



All but one of the Environmental Justice block groups in Revere meets the minority criteria, meaning that at least 25% of their residents identify as a minority. This is reflective of the growing racial and ethnic diversity of Revere; all categories of minorities have increase while the white population has decreased. Though almost 80% of residents identified as White alone in 2000, that number decreased to 62.4% by 2010. At the same time, the City of Revere saw a 15% increase in residents who identify as Hispanic or Latino. According to ACS 2016 5-Year Estimates, the percentage of Revere’s population that identifies as White alone has further decreased to 58.4%. Compared to the statewide rate of 73.7%, the City of Revere is much more racially and ethnically diverse than the rest of Massachusetts.

Figure 9: Race and Ethnicity



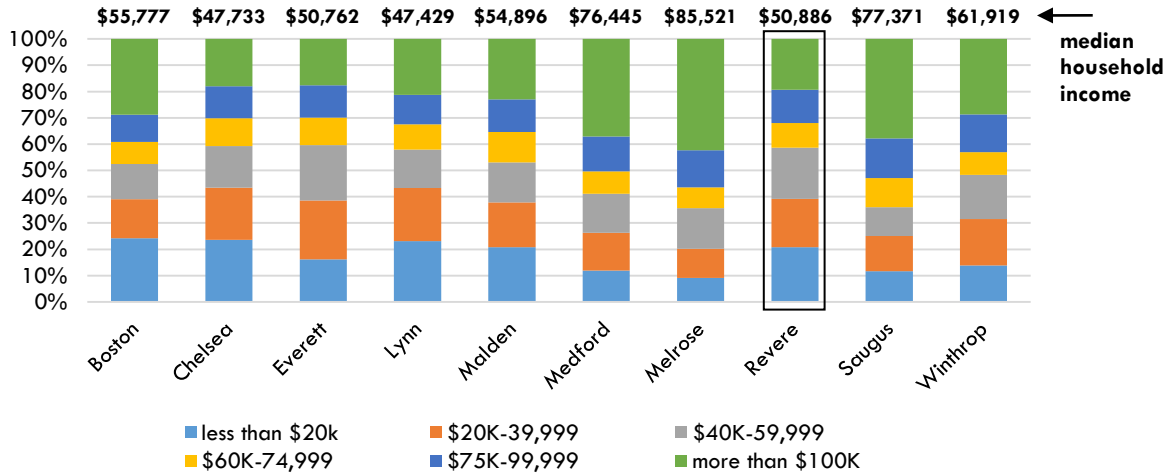
Source: US Census

Seven EJ block groups meet English isolation criteria where 25% or more of households have no one over the age of 14 who speaks English only or very well. According to ACS 2015 5-Year Estimates, English speakers make up just over half (51.5%) of Revere’s total population. A quarter (24.2%) of residents speak Spanish, 13.3% speak European languages, 4.8% speak Asian languages, and 6.3% speak other languages. Of the Spanish-speaking population, 19% of people do not speak English well and 5.2% do not speak it at all. A quarter (24.9%) of the Asian language speaking population does not speak English well and 6% do not speak it at all. Just over a third (34.9%) of Revere residents are foreign born, compared to only 15.5% of Massachusetts residents.

One block group in the Oak Island/Point of Pines neighborhoods meets EJ criteria solely for income, meaning that it has an annual median household income equal to or less than 65% of the statewide median. This equates to a median household income of less than \$40,673 a year (65% of \$62,133, the 2010 Massachusetts state median). Seven blocks groups meet the criteria for income in combination with one other criteria and two block groups, both located in the Shirley Avenue neighborhood, meet all three EJ criteria.

Compared to surrounding communities, the City of Revere is most similar to the City of Everett in terms of median household income and income distribution. According to ACS 2015 5-Year Estimates, Revere’s median household income is \$50,886 compared to Everett’s \$50,762, and the two cities have higher proportions of residents making \$40,000 to \$59,999 than other surrounding communities. Revere differs most from the City of Melrose where the median household income is \$85,521 and over 42% of households make above \$100,000 a year.

Figure 10: Household Income Distribution, Revere and Surrounding Communities



Source: ACS 2015 5-Year Estimates

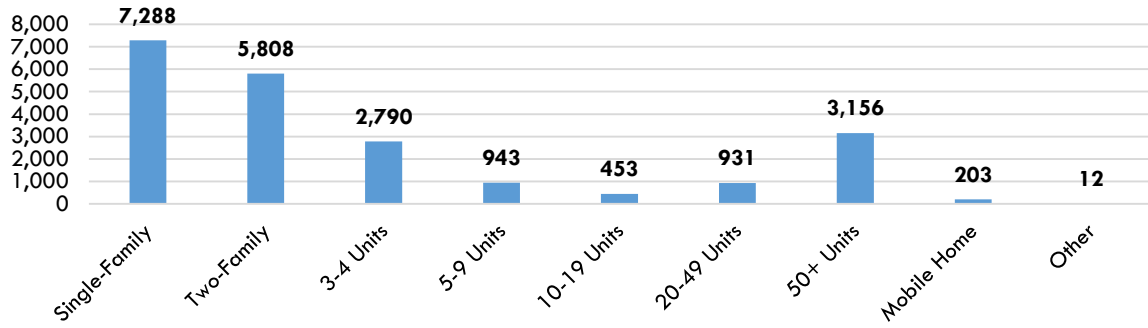
Housing and Economic Characteristics

The dominant housing type currently seen in Revere is the single-family home, which makes about a third (34%) of the city’s housing stock. This differs from the rest of Massachusetts where single-family houses account for 57% of the Commonwealth’s housing stock and reflects Revere’s more urban character. Two-family homes make up 27% of Revere’s housing stock, followed by buildings with 50+ units at 15% and buildings with three to four units at 13%.

According to ACS 2016 5-Year Estimates, more than a third (37%) of the homes in Revere were built prior to World War II. Homes built in the 1960s and the 1980s each make up 13% of the city’s housing stock, followed by homes built in the in the 1950s (10%) and the 1970s (8%). Just over 7% of Revere’s housing stock has been built since 2000.

The majority of people who work in Revere work in one of three industries: Retail Trade (20% of employees), Health Care and Social Assistance (15%), and Accommodation and Food Services (14%). However, these are also some of the lowest paid industries in the city; Retail Trade and Accommodation and Food Services have the lowest average annual wages in Revere after the Arts, Entertainment, and Recreation industry. According to the Massachusetts Executive Office of Labor and Workforce Development (EOLWD), Revere had 1,033 businesses and an average monthly employment of 10,417 people in FY2016.

Figure 11: Housing Units by Type



Source: ACS 2016 5-Year Estimates

As of January 2018, the largest employer in Revere was the New England Confectionery Company (NECCO) at approximately 800 employees. In May 2017, NECCO’s property was purchased by developers for \$54.6 million, leaving the future of the company and the jobs it provides in Revere in question. The CEO of NECCO has confirmed that the company intends to stay in the location until at least summer 2018 when the lease expires, and that possibility for renewal is likely.<sup>15</sup> In September 2017, the City of Revere rezoned the site for advanced manufacturing, robotics, and life sciences in the hopes of creating an employment hub in the community.

Figure 12: Employment by Industry

Industry	Average Annual Wage	Employees	Percent (%)
Health Care and Social Assistance	\$37,960	1,565	15.0%
Retail Trade	\$24,284	2,073	19.9%
Administrative and Waste Services	\$46,436	601	5.8%
Transportation and Warehousing	\$53,612	504	4.8%
Wholesale Trade	\$92,092	368	3.5%
Accommodation and Food Services	\$19,292	1,415	13.6%
Other Services, Ex. Public Admin	\$28,288	414	4.0%
Construction	\$41,496	413	4.0%
Real Estate and Rental and Leasing	\$46,072	222	2.1%
Professional and Technical Services	\$47,112	129	1.2%
Finance and Insurance	\$53,404	144	1.4%
Arts, Entertainment, and Recreation	\$13,052	92	0.9%
Information	\$29,484	285	2.7%
Total, All Industries	\$39,416	10,417	100%

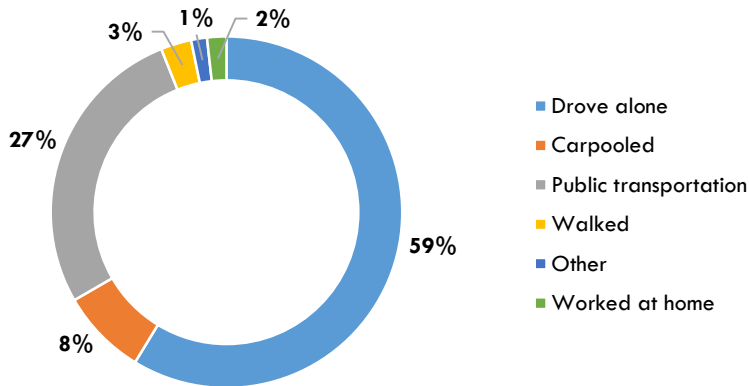
Source: MA EOLWD ES-202 2016

<sup>15</sup> Seth Daniel, “Necco CEO says Business is Booming, No Changes to be Expected Now,” Revere Journal, [www.reverejournal.com/2017/05/12/necco-ceo-says-business-is-booming-no-changes-to-be-expected-now/](http://www.reverejournal.com/2017/05/12/necco-ceo-says-business-is-booming-no-changes-to-be-expected-now/)



Roughly a third of Revere’s residents in the labor force work in the City of Revere. About another third works in the cities and towns contiguous to Revere, and the other third works elsewhere. Most people drive to work either alone (59%) or in a carpool (8%), though more than a quarter (27%) of residents take public transportation. This is much higher than in Massachusetts as a whole where only about 10% of residents take public transportation. Compared to the rest of state where 5% of the population walks to work and another 5% works from home, less people in Revere walk to work or work at home.

Figure 13: Transportation to Work



Source: ACS 2016 5-Year Estimates

## GROWTH AND DEVELOPMENT PATTERNS

### Patterns and Trends

Revere can be divided into three broad development areas. The area from Broadway east to the Boston and Maine (B&M) Railroad, is the middle section of the city. This area can best be described as a mixed use area characterized by older residential neighborhoods along Revere Street and Beach Street and scattered neighborhood commercial uses. It is heavily influenced by the regional highway network and is home to many governmental and institutional uses including City Hall. This is the original core settlement area of the city.

The second distinct area is Revere Beach and the surrounding area. It is geographically defined as the area east of the B&M Railroad and running from the Saugus River in the north to the Belle Island inlet in the south. While the area contains distinct neighborhoods such as Point of Pines, Pines River, Oak Island, Shirley Avenue, and Beachmont, its land use character is dominated by the unique three miles of uninterrupted crescent-shaped beach that is Revere Beach. The beach has undergone significant development, reconstruction, and renovation during the past few decades and it provides a strong edge to a large portion of the city.

The third area is the portion of the city west of Broadway. It is primarily residential, except for the Squire Road commercial corridor, and Broadway itself and is the most suburban portion of the city. While residential development dates from the 1880s, most of the development in this area took place between 1960 and 1980. Large portions of North

Revere remained undeveloped for many years due to the presence of ledge, but as land became scarce and prices rose, even this area has seen significant residential development.

Figure 14 shows land use by parcel in Revere as classified by tax assessment purposes and Figure 15 depicts the breakdown by area. Over a third (39%) of Revere is comprised of residential land uses, of which most are single family or two/three family homes. Higher-density multifamily properties of four or more units make up a small but growing fraction of the residential landscape. These parcels are mainly concentrated along Revere Beach and in areas of the North Revere and Northgate neighborhoods. Other residential uses in the city include multiple houses on one property, mobile homes, and accessory dwellings.

Approximately 6% of Revere (over 200 acres) is considered vacant residential land. Only about a third of this vacant land is considered “developable” or “potentially developable” by the Revere Assessor; the other two thirds are considered “undevelopable.” Land may be undevelopable due to a variety of environmental constraints, such as difficult topography, wetlands, or a lack of access. While these constraints may present complications for development purposes, they also present opportunities for considering the preservation of land for conservation and recreation purposes.

About 16% of land in Revere is commercial or industrial. The industrial land is mainly concentrated in southern Revere and at the NECCO site, and it makes up 3.7% of the total land area in the city. More than twice this amount of land is used for commercial and retail purposes, and it forms a well-defined corridor along Broadway. Other large tracts of commercial land include the Northgate Mall, Showcase Cinema, Wonderland Marketplace plaza, and the Wonderland and Suffolk Downs tracks. Just over 1% of land in Revere is used for offices while less than 1% is mixed use, such as a combination of residential and commercial uses in one building. As with residential land, a percentage of commercial and industrial land is considered to be vacant and either developable or undevelopable. Similarly, only a fraction of the vacant land is developable and should be considered for its potential as conservation or recreation land where appropriate.

Almost a quarter (23%) of land in Revere falls under the tax classification as “exempt,” land that is tax-exempt because it is either publicly-owned by a government entity or owned by a nonprofit, tax-exempt institution. The latter applies to private educational facilities, religious congregations, or charitable organizations, such as hospitals and museums, which make up less than 1% of total land area. The vast majority of exempt land in Revere consists of the beach and the city’s parks and other open spaces. Additional notable parcels of publicly-owned exempt land in Revere include the City’s municipal facilities and schools.

A right-of-way is a type of easement granted over land for transportation or public utility purposes. A fifth of Revere’s total land area is right-of-ways, which are primarily roads along with their curbs and sidewalks, the largest of which is around the Route 1 and Squire Road interchange. These areas are generally paved, impervious surfaces that deserve attention in terms of their impact on stormwater runoff and other environmental factors.

Figure 14: Land Use Map

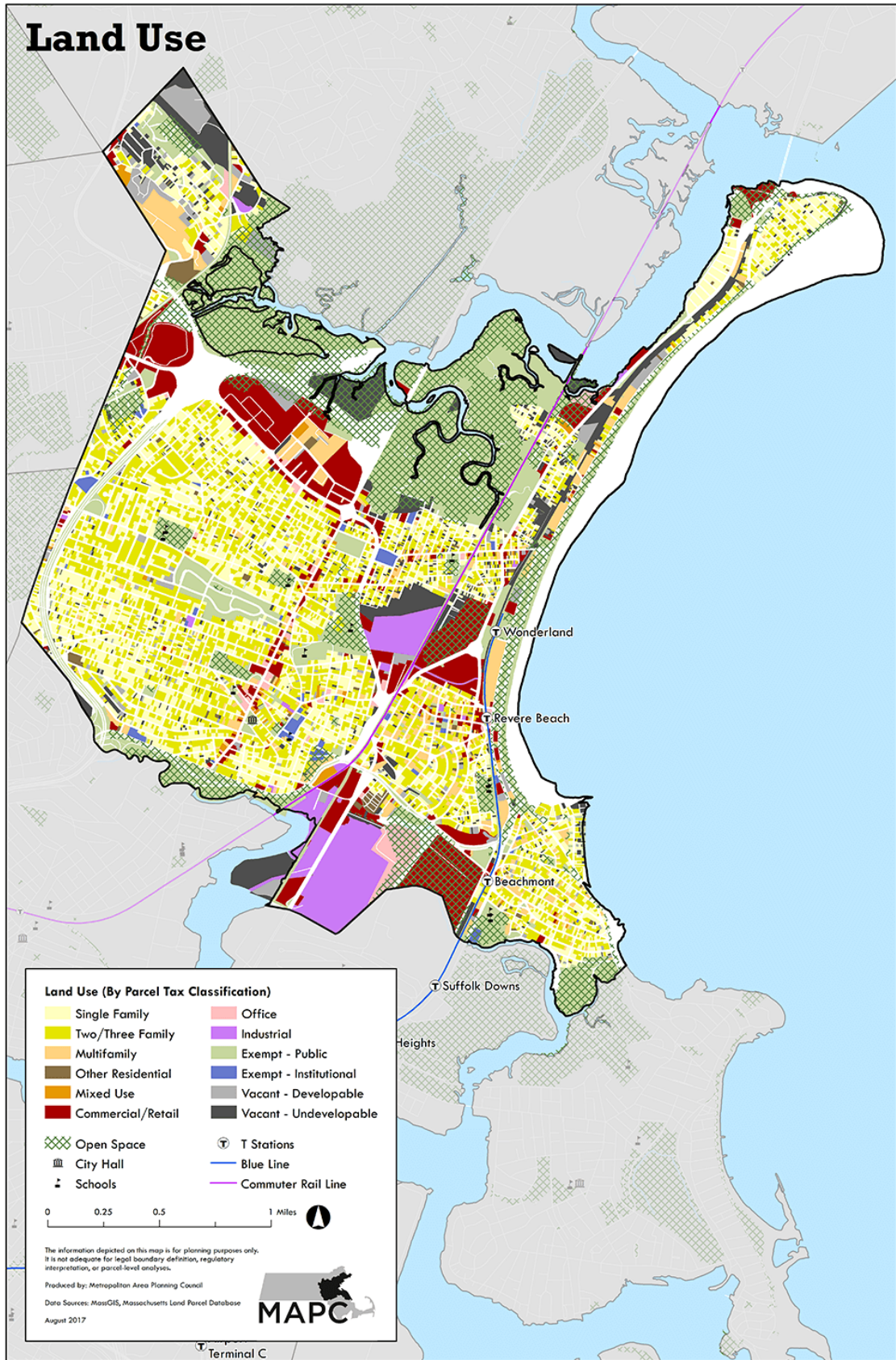


Figure 15: Land Use Breakdown

Property Type	Square Feet	Acres	% Total
<b>Residential</b>	<b>64,709,714.6</b>	<b>1,485.53</b>	<b>39.1%</b>
Single Family	22,607,048.0	518.99	13.7%
Two/Three Family	25,190,699.0	578.30	15.2%
Multifamily	6,136,564.7	140.88	3.7%
Other Residential	1,534,212.9	35.22	0.9%
Vacant - Developable	3,179,212.9	72.98	1.9%
Vacant - Undevelopable	6,061,977.3	139.16	3.7%
<b>Mixed Use</b>	<b>939,832.8</b>	<b>21.58</b>	<b>0.6%</b>
<b>Commercial/Industrial</b>	<b>26,941,057.0</b>	<b>618.48</b>	<b>16.3%</b>
Commercial/Retail	14,057,334.7	322.71	8.5%
Office	1,935,422.7	44.43	1.2%
Industrial	6,160,666.2	141.43	3.7%
Vacant - Developable	1,093,875.3	25.11	0.7%
Vacant - Undevelopable	3,693,758.2	84.80	2.2%
<b>Public</b>	<b>37,887,674.0</b>	<b>869.78</b>	<b>22.9%</b>
Exempt	36,891,693.4	846.92	22.3%
Institutional	995,980.5	22.86	0.6%
<b>Right-of-Ways</b>	<b>32,620,313.7</b>	<b>748.86</b>	<b>19.7%</b>
<b>Other</b>	<b>2,197,837.3</b>	<b>50.46</b>	<b>1.3%</b>
<b>Total</b>	<b>165,296,429.4</b>	<b>3,794.68</b>	<b>100.0%</b>

Source: Massachusetts Land Parcel Database

### Infrastructure

#### Transportation System

Revere is situated adjacent to Boston and has excellent rail, air, and highway access. The major highways are U.S. Route 1 and State Route 1A. The city is served by the Massachusetts Bay Transit Authority (MBTA) with three stops on the Blue Line at Beachmont, Revere Beach, and Wonderland; parking is available at both the Beachmont and Wonderland stations. MBTA bus service connects areas within Revere and connects to destinations in neighboring communities, such as the 110 bus that travels to Wellington Station on the Orange Line via Everett Square. The MBTA also provides THE RIDE, a paratransit service for the elderly and disabled.

Blue Line Train at Revere Beach Station



Source: Wikipedia

Revere contains approximately 117 miles of public and private roadways. The city’s roadway system is classified within three categories of streets: local, collector, and arterial. Local streets provide direct access to residential properties and are designed to service the traffic needs within a particular neighborhood. Local streets comprise a majority of Revere’s roadway network and are often subject to greater levels of through traffic than originally designed for. Revere’s collector streets primarily serve to drain traffic off of local streets and lead such traffic to arterial roadways. Arterial roadways such as Route 60 (Squire Road and American Legion Highway), Route 1A (North Shore Road), and Route 16 (Revere Beach Parkway) service the largest volumes. The most important function of Revere’s arterial roadways is to move large volumes of automobiles and trucks through the City.

Pedestrian and Cycling Options

Over the last five years, the City significantly expanded pedestrian and cycling opportunities. **Figure XX** below lists recent additions to the City’s inventory of bike lanes.

**Bike Lanes - priorities and plans:**

Street	Start Point	Direction	Lane Type	Length	Connections	Install Date
Broadway	@ City of Revere/Chelsea Line	North East	Sharrow	1.02 miles	Revere Street Sharrow	Summer 2015
Broadway	@Revere Street	South West	Bike Lane	1.02 miles		Summer 2015
Broadway	@ Revere Street	Turning West	Bike Box		Malden Street Sharrow	Fall 2017
BSC Bike Path	@ Lynn Street	North	Off road path	1 mile	Malden and Saugus path	Summer 2015
Malden Street	@ Washington Ave	East	Sharrow	1.1 miles	Broadway Bike lane	Fall 2017

Malden Street	@ Revere Street	West	Sharrow	1.1 miles		Fall 2017
Malden Street	@ Broadway	Turning North	Bike Box		Broadway Sharrow	Fall 2017
Revere Street	@Broadway	East	Sharrow	1.13 miles		Spring 2013
Revere Street	@ Revere Beach Blvd	West	Bike Lane	1.13 miles	Broadway Bike Lane	Spring 2013

Additionally, the City established the following urban pedestrian trails:

- West Revere Urban Trail (9/13): 1.8 miles long
- Beachmont Urban Trail (9/14): 2.0 miles long
- Ward 4 Urban Trail (9/16): 2.78 miles long
- Shirley Ave Urban Trail (7/16): 1.5 miles long

Revere is working to improve the Northern Strand Trail, a one-mile off-road bike/pedestrian trail. Revere representatives are working with EOEEA; Brown, Richardson & Rowe; and Stantec, as well as residents of the community to define the design plans to improve the trail. The project includes collaboration between five municipalities and anticipates the completion of a bid ready package in 2019, with project completion expected in 2020. The project includes but is not limited to paving, interpretive signage regarding historic features and wildlife, resting spaces, a walkover connection to Harmon Park, additional bike racks at the entry points, a bike repair station and enhanced crossing points.

Additional bike infrastructure includes a bike share program with Lime Bike Company that provides 160-175 bikes in the City. The City now has a total of 20 bikes racks, mostly located at playgrounds connected to a school. The City intends to increase the amount of artistic bike racks in the City in the next few years.

Water and Sewer

Along with a number of communities in Greater Boston, the City of Revere gets its water from the Massachusetts Water Resources Authority (MWRA). The MWRA assumed control of the sewer collection and water distribution systems of the Metropolitan District Commission in 1985 and supplies the city with water from the Quabbin Reservoir in central/western Massachusetts. The MWRA chlorinates the water and supplies some of the best quality drinking water in the nation with extensive treatment. There are six metered and regulated connections between the MWRA system and the City’s distribution system.

The City of Revere’s municipal water distribution system supplies water to every home, apartment building, and commercial establishment in Revere. The City’s Water and Sewer Department bills residents for water four times a year. Each week, the Department tests the water quality at thirteen sites around Revere and tests for lead at twelve sites. The City also tests the water at Revere Beach on a regular basis.<sup>16</sup>

According to the City’s FY16 Capital Improvement Plan, Revere’s sanitary sewer collection system consists of about 80 miles of separated sanitary sewer with the majority of the system constructed of vitrified clay pipe with brick manholes. Pipe sizes range from 6” to 30” in diameter with some larger oval shaped trunk sewers. About 75% of these pipes are 8” diameter lateral sewers. Stormwater enters a separate drainage system which was designed to keep stormwater and sanitary sewage apart.

The City of Revere is one of 43 communities in Greater Boston included in the sanitary sewage collection system service area of the MWRA. The majority of the sewage from the municipal system flows through a 36” x 48” brick arched sewer to the MWRA twin 36” siphon near Slades Mill. The brick arched sewer high-end portion is referred to as the Harris Street Tunnel and the entire line is the main interceptor sewer in the City. The low-lying area along Revere Beach Parkway from Vinal Street westerly across Broadway to Olive Street discharges through a separate 8” connection at the siphon. A 10” connection at the MWRA system on Washington Avenue near the Chelsea line serves a portion of the southwest corner of the City. Trunk sewers extend from the brick sewer to various sections of the City.

Sanitary sewage pumping stations on Salem Street, Linehurst Road, Marshall Street, Sherman Street, Goldie Street, Bruno Street, Griswald Street, Marshview Terrace, Milano Avenue, Atwood Street, Lynnway, and at the Garfield School service areas that could not be connected by gravity sewers. Some streets in Revere, including Revere Beach Parkway from Olive Street to Borden Street, and parts of Spring and Jordan Streets, still have homes with septic disposal systems due to the absence of municipal sewage collection.

During the past few years, the City has invested millions to upgrade its sewer system, including replacing, cleaning, televising, and lining numerous pipes throughout Revere. In addition, the City of Revere has entered into a Consent Decree with the Department of Justice and the Environmental Protection Agency that will ultimately lead to the detection and elimination of illegal sanitary sewer overflows (SSOs) in the City over the next 10 years. The improvement projects target sources of inflow and infiltration (I/I) within the City’s aging sewer and drainage system(s). These improvements are expected to total more than \$100 million. These high costs are in part a local responsibility due to decades of deferred maintenance and other issues related to the operation and maintenance of the City’s infrastructure.<sup>17</sup>

#### Long-Term Development Patterns

Revere is categorized by MAPC as a Metropolitan Core Community. These municipalities have a historic, high-density, urban character, with a range of housing from traditional triple-deckers and row houses to large multifamily buildings. New growth occurs mostly

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<sup>16</sup> City of Revere, FY2016 Proposed Budget, <https://www.revere.org/docs/mayor/FY2016-Final-Proposed-Budget-v6-25.pdf>

<sup>17</sup> City of Revere, FY2016 Proposed Budget

through redevelopment, infill, or conversion from industrial uses to residential or mixed uses. Minority, immigrant, and low-income populations comprise a large share of the population.

Long-term development of Revere is largely a function of the economy, zoning, and the amount of remaining, buildable land. In terms of zoning, the City of Revere is divided into 18 base zoning districts which are shown in Figure 16 and described in Figure 17. Residential densities in Revere range from 6,000 to 25,000 square foot lots. While there is still some development of single-family homes, there are few opportunities for new subdivisions and the majority of new dwelling units have been in multi-family structures.



Figure 16: Zoning Map

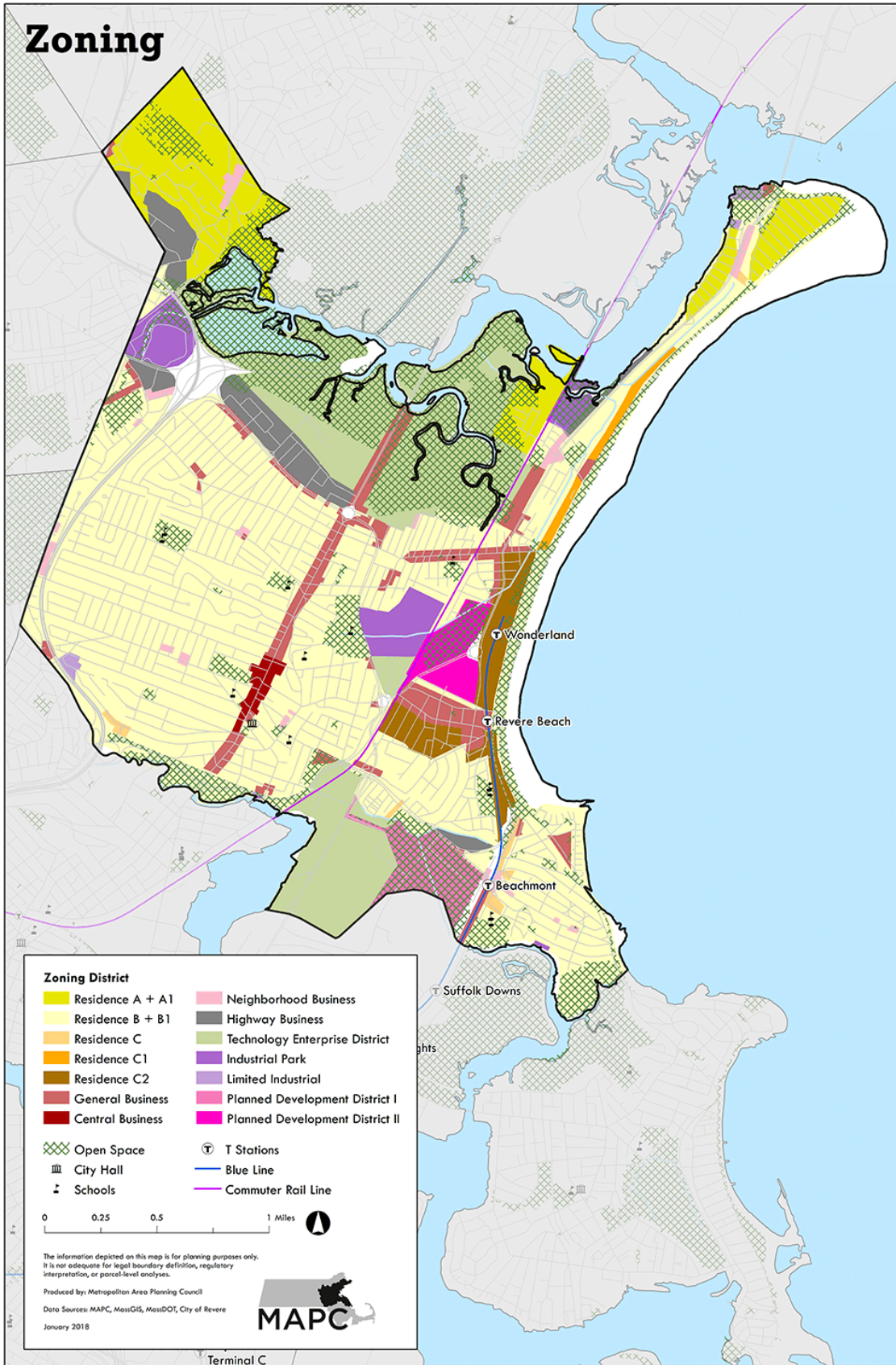


Figure 17: Base Zoning Districts

District Name	Description	Max. Height/Stories	Min. Lot Size
Residence A (RA)	Single-family dwellings	30 feet/2.5	6,000 sf
Residence A1 (RA1)	Single-family dwellings	35 feet/2.5	8,000 sf
Residence B (RB)	Single- and two-family dwellings	35 feet/2.5	8,000 sf
Residence B1 (RB1)	Single- and two-family dwellings	35 feet/2.5	8,000 sf
Residence C (RC)	Apartment dwellings	50 feet/5	10,000 sf
Residence C1 (RC1)	Apartment dwellings	120 feet/13	25,000 sf
Residence C2 (RC2)	High rise mixed use	140 feet/14	25,000 sf
Residence C3 (RC3)	Multifamily dwellings	35 feet/3	10,000 sf
Planned Development District 1 (PDD1)	Planned unit development by special permit	180 feet/18	130,000 sf
Planned Development District 2 (PDD2)	Planned unit development by special permit	200 feet/20	3 acres
Neighborhood Business (NB)	Convenience business	35 feet/2.5	10,000 sf
General Business (GB)	General business and professional offices	50 feet/5	10,000 sf
General Business 1 (GB1)	General business and professional offices	35 feet/3	10,000 sf
Central Business (CB)	Community commercial center	60 feet/6	4,000 sf
Highway Business (HB)	Highway commercial and regional business	50 feet/5	15,000 sf
Technology Enterprise District (TED)	Research and development, biotechnology, office park, and hospitality	50 feet/5	25,000 sf
Limited Industrial (LI)	Less intensive industrial use	30 feet/2	15,000 sf
Industrial Park (IP)	Master-planned industrial development	50 feet/5	130,000 sf

The zoning districts in Revere with the most potential for change over the next decade are the two Planned Development Districts. PDD1 includes the Wonderland Marketplace and former Wonderland Greyhound Park while PDD2 includes the Shops at Suffolk Downs and the former Suffolk Downs track. In regard to PDD1, work to demolish the track and empty facilities at Wonderland began in summer 2017, though the future of the site is unknown. CPW Lending, which includes investors from New York and Boston, owns the track and is looking to sell the 38-acre property.<sup>18</sup>

<sup>18</sup> Cameron Sperance (October 5, 2017), "Wonderland Greyhound Park Owner Begins Demolition in Quest for Buyer," Bisnow, [www.bisnow.com/boston/news/mixed-use/no-more-wonderland-demolition-begins-at-former-dog-track-79979](http://www.bisnow.com/boston/news/mixed-use/no-more-wonderland-demolition-begins-at-former-dog-track-79979)

PDD2 holds significantly more redevelopment opportunity; as of January 2018, the former Suffolk Downs racetrack that saddles southern Revere and East Boston is a serious contender for Amazon’s new headquarters (HQ2). HYM Investment Group owns the 161-acre site that is the focal point of the Boston’s and Revere’s joint application for Amazon HQ2 after purchasing it from CPW Lending in spring 2017. Whether or not Amazon chooses Boston as its new headquarters, large-scale redevelopment of the site is highly likely. According to HYM Investment Group, redevelopment will include 16.5 million square feet (5.5 million square feet in Revere alone) of new residential, retail, office, hotel, and lab space to be built out over the next two decades. Should Amazon select Boston, the developers will select a pro-commercial approach that includes the 8 million square feet of office space that Amazon is seeking in a new headquarters. If Amazon selects another city, the pro-residential path will include 5.25 million square feet of office space.<sup>19</sup>

*Rendering of Amazon HQ2 in Revere and Boston*



Source: CBT Architects

In addition to the base zoning districts in Revere, there are also a handful of overlay districts in the city. The Wonderland Transit-Oriented Development Overlay District (WTODOD) is within the RC2 high rise mixed use district and was established to foster commercial and residential development, enhance the existing transportation system, and improve the general and public welfare of the area. According to Revere Code of Ordinances, the Overlook Ridge Overlay District (OROD) was established “...to encourage

<sup>19</sup> Tom Acitelli (December 6, 2017), “Suffolk Downs redevelopment could go one of two ways,” Curbed Boston, <https://boston.curbed.com/boston-development/2017/12/6/16739398/suffolk-downs-redevelopment-amazon-construction>

the development of comprehensive, high-quality mixed use projects based on sound planning principles on large, contiguous parcels of land while at the same conserving public health; securing public safety from fire, flood, and other natural catastrophes; providing sufficient light and air; making adequate provision for transportation, water, water supply, drainage, sewerage, parks, open space, and preservation of natural resources; preserving or increasing public amenities; and providing adequate net tax revenue to offset any effects posed by large-scale development.”<sup>20</sup> The OROD is made up of three separate subdistricts in North Revere.

Lastly, the Floodplain Overlay District includes all special flood hazard areas within the City of Revere designated as Zone A, AE, AH, AO, A99, V, or VE on the Suffolk County Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program (NFIP). This overlay district regulates development in the flood hazard areas and was established to: “ensure public safety through reducing the threats to life and personal injury; eliminate new hazards to emergency response officials; prevent the occurrence of public emergencies resulting from water quality, contamination, and pollution due to flooding; avoid the loss of utility services if which damaged by flooding would disrupt or shut down the utility network and impact regions of the community beyond the site of flooding; eliminate costs associated with the response and cleanup of flooding conditions; and reduce damage to public and private property resulting from flooding waters.”<sup>21</sup>

## COMMUNITY HEALTH PROFILE

### Overview

A community health profile provides an understanding of current health issues, underlying health inequities, and provides a look into how health issues might change in the future. This knowledge should be used to inform the planning and design of projects to avoid exacerbating existing inequities and find opportunities to improve the health of the community.

Revere’s population is experiencing poor health outcomes; the residents of Revere do not enjoy the same health status as residents of Massachusetts on average. The following section uses the data available to illustrate the current state of health in Revere and utilizes demographic information to help predict what the health of residents looks like now and what it could look like in the future. Please note that all interpretations about whether Revere is performing better, worse, or no differently than the State are based on statistical significance. Statistical significance in this report is based on a 95% confidence level.<sup>22</sup>

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<sup>20</sup> City of Revere Code of Ordinances (March 2015), [https://library.municode.com/ma/revere/codes/code\\_of\\_ordinances](https://library.municode.com/ma/revere/codes/code_of_ordinances)

<sup>21</sup> *Ibid*

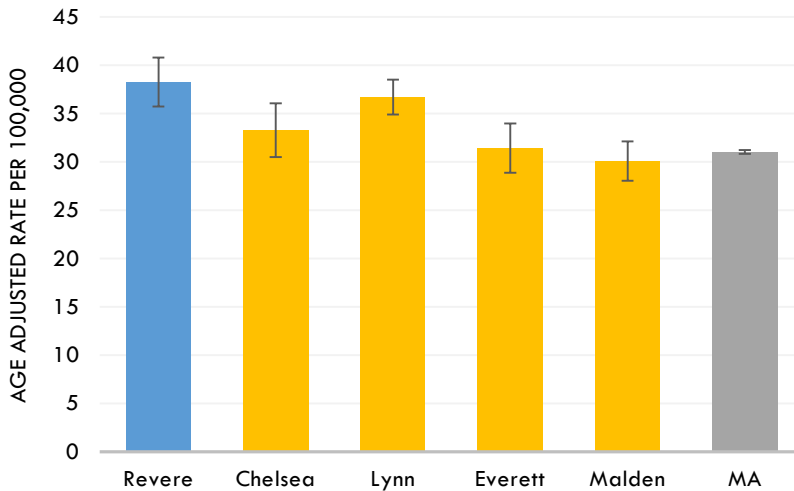
<sup>22</sup> The confidence level, set here at 95%, describes the degree of uncertainty associated with a confidence interval. Since it is impractical to measure all residents, measurements are instead taken from a random sample of people from the larger population. Confidence intervals give us a sense of how close measurements taken from this sample are to the larger population measurements. If repeated samples were taken and the 95% confidence interval was computed for each sample, 95% of the intervals would contain the population parameter.

Health and Wellness in Revere

Hospitalizations, presence of chronic diseases—those that go on for a long time and often do not go away completely—birth and death numbers, and surveys about self-reported mental health and healthy behaviors provide insights into Revere’s current health status.

Premature mortality—death occurring before the average life expectancy of 75 years—is a basic public health indicator. With higher life expectancy, most deaths occur among the older aged people (75+ years) in a community, such that a simple mortality rate is often dominated by this age group. From a public health perspective, premature mortality can focus attention on the deaths that could have been prevented. Figure 18 shows that Revere’s premature mortality rate (38.3 age adjusted deaths per 100,000) is similar to levels in Lynn and Chelsea, but statistically significantly higher than the State and of other comparison communities.

Figure 18: Premature Mortality Rate in Revere and Comparison Areas



Source: Massachusetts Department of Public Health Deaths Data, 2008-2012

Hospitalization and disease-related death are indicators of how people are faring now in terms of health outcomes. Cardiovascular disease, cancer, and hypertension are amongst some of the most important contributors to premature mortality and disease prevalence in the United States.<sup>23</sup> Hospitalization rates for these diseases do not fully represent the spectrum of the condition or its full presence in the community, as they only show the rate of the most serious health conditions (when hospitalization becomes necessary). However, this data can still give a picture of relative disease burden across communities today.

As shown in Figure 19, hospitalization rates amongst adults in Revere are significantly worse than those statewide in nearly every category. While asthma rates are similar across Revere and the state, pediatric asthma rates are excessively higher. This may be due to

<sup>23</sup> Danaei, Goodarz, et al. "The preventable causes of death in the United States: comparative risk assessment of dietary, lifestyle, and metabolic risk factors." PLoS Med 6.4 (2009): e1000058.

lower prevalence in the population as a whole, but it may also be due to issues related to reporting.

Figure 19: Age Adjusted Hospitalization Rates Per 100,000

	Revere	95% Confidence Interval	State	95% Confidence Interval
Coronary Heart Disease ‡	357.5	(329.2 - 385.7)	320.2	(317.9-322.6)
All Cancer ‡	450.9	(418.9 - 482.9)	371.2	(368.6-373.7)
Hypertension †	63.4	(54.0 - 72.7)	45.5	(44.8-46.2)
Alcohol/Substance Abuse ‡	392.5	(361.4 - 423.7)	330.7	(328.2-333.2)
Asthma †	155.7	(139.6 - 171.7)	151.9	(150.6-153.3)
Pediatric Asthma †	278.0	(234.4 - 321.4)	187.9	(184.9-190.8)
COPD †	398.0	(373.9 - 422.1)	364.4	(362.3-366.4)
Diabetes †	170.3	(154.2 - 186.5)	135.0	(133.8-136.3)

■ = significantly worse than statewide □ = no significant difference

†: 3 year aggregate rates, 2012-2014; ‡: 3 year aggregate rates, 2009-2011

Source: Massachusetts Department of Health MassCHIP

Other health conditions that are major contributors to the domestic burden of disease are obesity, diabetes, poor mental health, heart disease, and stroke. Looking at the prevalence of these health conditions provides an understanding of issues today and those to come. This is especially critical in the context of an OSRP; increased access to parks and recreational spaces has been found to get people to exercise more and has been linked to improvements in cardiovascular health, physical fitness, and reduced risk of stress, depressive symptoms, and clinical anxiety.<sup>24</sup>

Estimates for the conditions in come from the Behavioral Risk Factor Surveillance System (BRFSS), a national health survey collected by the Centers for Disease Control and Prevention (CDC). Community-level estimates are based on relatively few respondents and thus have wide confidence intervals (>30%). Therefore, although these conditions are estimated to be higher in Revere, we cannot say if their prevalence is significantly different than Massachusetts-wide levels.

The percent of Revere residents who are estimated to be obese or overweight is notably high. The 2015 Community Health Needs Assessment (CHNA) for Revere and neighboring cities reported similar rates for Revere’s youth. Close to half of students surveyed were overweight or obese, higher than State levels (45% and 31%, respectively).<sup>25</sup> Both the short-term and long-term effects of being overweight or obese are of concern as they are associated with increases in an individual’s risk for other chronic diseases and are a major cause of death nationally.<sup>26</sup>

<sup>24</sup> James, P., Banay, R., Hart, J. Laden, F., A review of the Health Benefits of Greenness, Curr. Epidemiol. Rep., DOI 10.1007/s4047-015-0043-7, April 2015.

<sup>25</sup> MGH Center for Community Health Improvement. (2015). Community Health Needs Assessment & Implementation Strategy.

<sup>26</sup> IOM (Institute of Medicine). (2012). Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation. Washington, DC: The National Academies Press.

Figure 20: Small Area Estimates of Disease and Risk Factor Prevalence

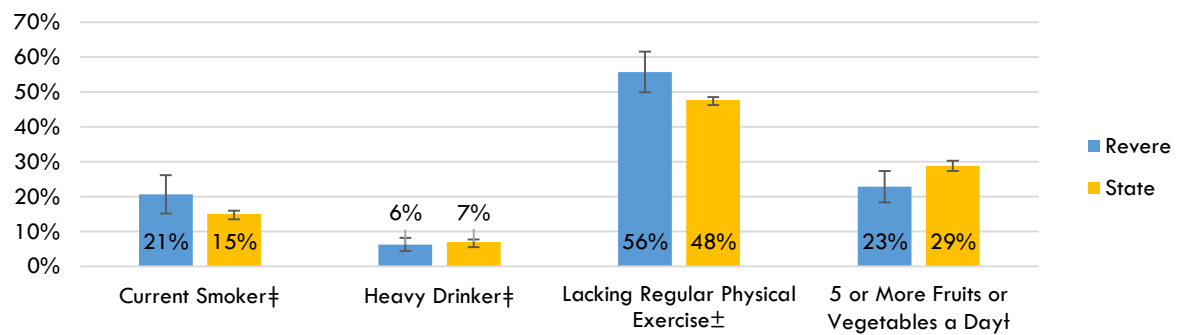
	% of Revere Population	95% Confidence Interval	% of State Population	95% Confidence Interval
Obesity ‡	26.4%	(20.7 - 33.1)	22.3%	(20.2-24.4)
Overweight ‡	63.6%	(56.7 - 69.9)	58.9%	(57.6-60.2)
Heart Disease †	6.1%	(4.6 - 8.2)	5.8%	(5.2-6.3)
Diabetes ‡	9.9%	(7.0 - 13.7)	7.5%	(7.2-7.82)
Stroke ‡	2.4%	(1.7 - 3.4)	3.5%	(3.0-4.0)
Poor Mental Health ‡	14.8%	(10.9 - 19.6)	11.3%	(10.4-12.1)

†: 2011, 2012, 2014; ‡: 2012-2014  
 Source: BRFSS Small Area Estimates

The prevalence of poor mental health is also of concern. The 2015 CHNA found that resident concerns around mental health are growing and that mental health has resulted in elevated hospitalization and mortality rates.<sup>27</sup> Data from the Youth Risk Behavior Survey found that Revere youth report higher rates of depression (33%) and suicidal ideations (16%) than State levels (22% and 12%).<sup>28</sup> Mental and physical health are intertwined and exacerbated by community conditions, of which open space access plays a role.

The BRFSS also provides estimates for the prevalence of behaviors linked to health and wellness. More than half of Revere residents lacked regular physical exercise, about a fourth reported consuming five or more fruits and vegetables a day, and a fifth of the population smoked. Although not significantly worse than state levels, these estimates suggest behaviors that do not support good health outcomes.

Figure 21: Health Behavior



‡: 2012-2014; † 2005, 2007, 2009; ±: 2001, 2003, 2005, 2007, 2009  
 Source: BRFSS Small Area Estimates

**Environmental Health**

Environmental health hazards are forms of pollution that can come from historical sources, accidental releases, manufacturing processes, or regular activities like driving a car. The

<sup>27</sup> MGH Center for Community Health Improvement 2015

<sup>28</sup> Youth Risk Behavior Survey (2013) from MGH Center for Community Health Improvement 2015

degree to which a person might be impacted by an environmental hazard is extremely variable and depends on many factors including age, individual health status, the amount and toxicity of the hazard, and the length of time of exposure.<sup>29</sup> Vehicular air pollution is a known environmental health hazard that has been linked to mortality and hospitalizations due to asthma exacerbation, chronic lung disease, and major cardiovascular diseases. Certain pollutants emitted from vehicles impact local air quality, while others from vehicle exhaust or other sources, such as fine particulate matter or ozone, impact air quality across a larger scale.

The U.S. Environmental Protection Agency (EPA) has identified six criteria air pollutants that have human health impacts. Of these, the four most closely linked to vehicular traffic pollution are ozone, carbon monoxide, nitrogen dioxide, and particulate matter. In 2016, the Suffolk County levels of all criteria pollutants were below EPA’s thresholds for unhealthy; levels in Revere are adequate.<sup>30</sup>

Ultrafine particles (UFPs), the smallest and possibly the most dangerous of all particulate matter, are not an EPA-regulated pollutant. Since UFPs are so tiny, they can more easily get inside the body where research has linked them to high levels of inflammation in blood.<sup>31</sup> Long-term elevated levels of inflammation can cause harm and lead to heart attacks, strokes, and other illnesses.<sup>32</sup> Unlike particulate matter or ozone, UFP concentrations depend heavily on local dispersion patterns and are often elevated next to highways and major roadways (<500-100 feet) and near airports (within a few miles).<sup>33</sup> This type of air pollution is of significant concern in Revere due to the high volume roadways (roughly 30,000 vehicles/day or more) in the city and the proximity of Logan International Airport. Figure 22 shows the breakdown of traffic volumes on roads in Revere.

Route 1 has the highest traffic volumes in Revere. Annual Daily Traffic (ADT) along this route is estimated to range from 66,000 to 82,000 vehicles. Estimates are higher north compared to south through Revere, with segments of Route 1 closest to Saugus having ADT estimates above 80,000. With volumes of 41,000 to 57,000 vehicles per day, Route 1A, Route 16 to Bell Circle, and Route 60 through the Robert M. Copeland Circle are also considered high volume roadways. Rumney Marsh Academy and residences are located along all these corridors with minimal setbacks and buffers.

<sup>29</sup> Massachusetts Department of Public Health, Bureau of Environmental Health, Massachusetts Environmental Public Health Tracking (EPHT). (2017). *EPHT Community Profile for Revere*, 1–10. Retrieved from <https://matracking.ehs.state.ma.us/>

<sup>30</sup> MassDEP, Bureau of Air and Waste, Division of Air and Climate Programs. (2017). *Massachusetts 2016 Air Quality Report*, (October).

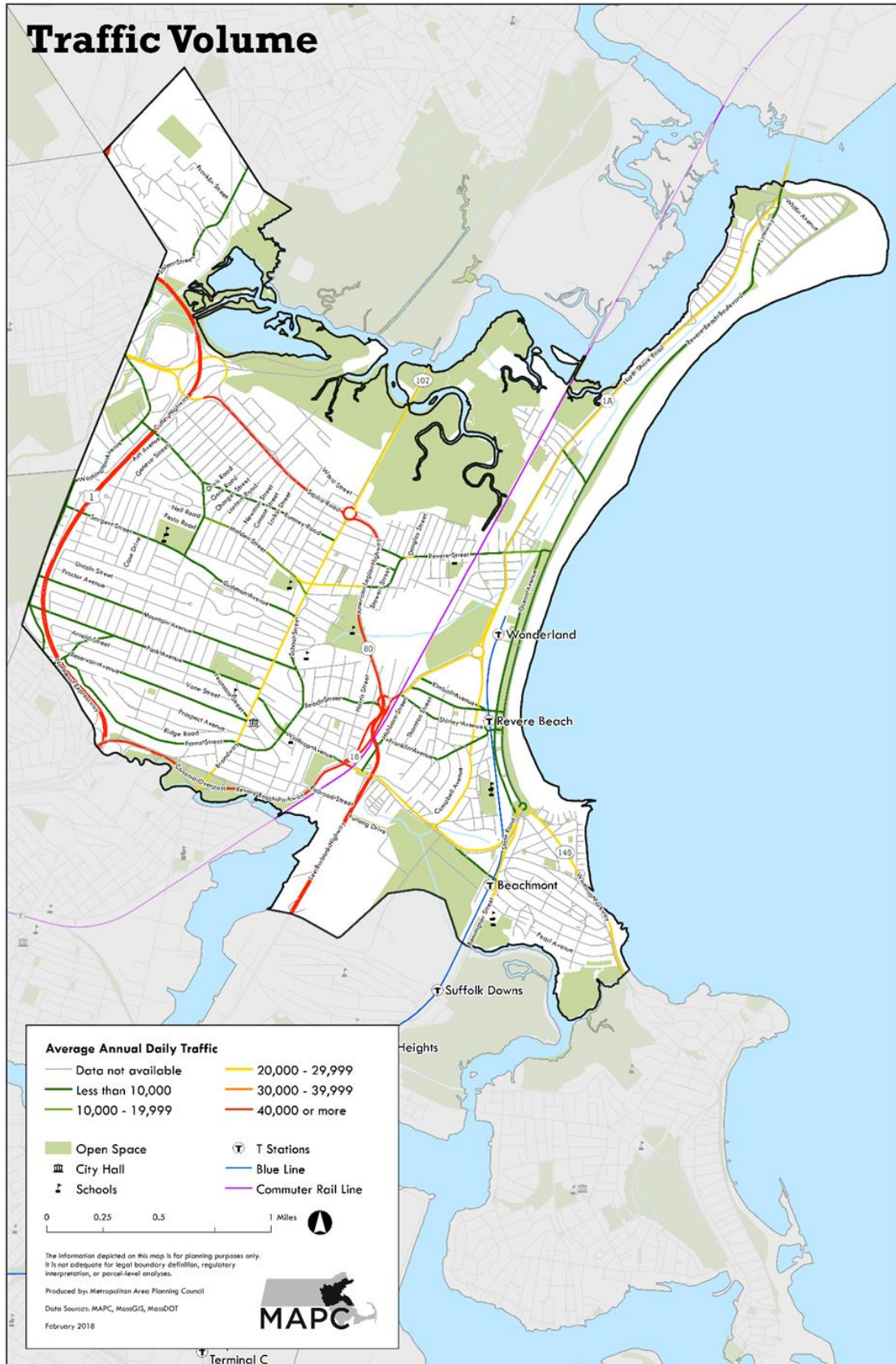
<sup>31</sup> Lane K.J, Levy J.I, Scammell M.K, Peters J.L., Patton A.P., Reisner E., Lowe L, Zamore W, Durant J., Brugge D. Association of modeled long-term personal exposure to ultrafine particles with inflammatory and coagulation biomarkers. *Environment International*. 2016; 92-93:173-182.

<sup>32</sup> Pope, C. A., Burnett, R. T., Thurston, G. D., Thun, M. J., Calle, E. E., Krewski, D., & Godleski, J. J. (2004). Cardiovascular mortality and long-term exposure to particulate air pollution: epidemiological evidence of general pathophysiological pathways of disease. *Circulation*, 109(1), 71-77.

<sup>33</sup> Hudda, N., Simon, M. C., Zamore, W., & Durant, J. L. (2018). Aviation-Related Impacts on Ultrafine Particle Number Concentrations Outside and Inside Residences near an Airport.



Figure 22: Traffic Volume Map



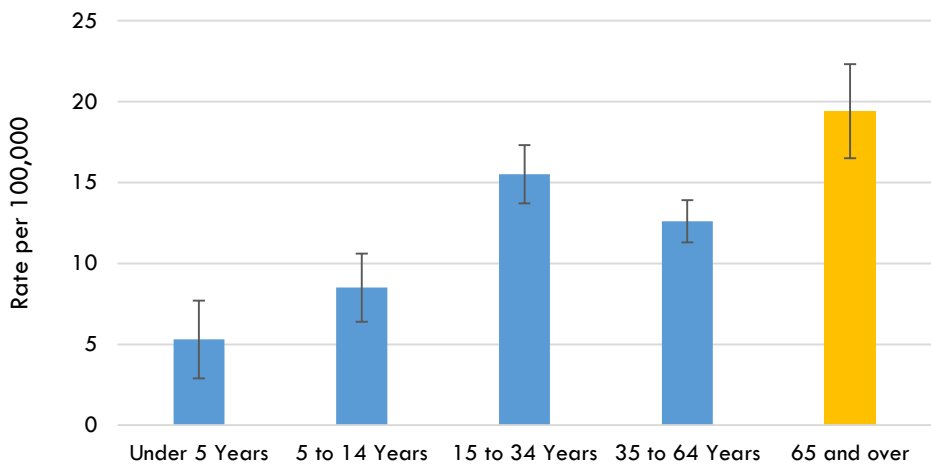
Climate Change

Along with harming human health, air pollution can cause a variety of environmental effects, including global climate change. The projected changes, such as higher temperatures and extreme weather, will exacerbate long-term chronic illnesses. While physical places will be vulnerable, so too will be the health of people that live, work and gather in these places.

One predicted impact of climate change is an increase in the number of days of extreme heat, the leading weather-related cause of death in the United States.<sup>34</sup> Prolonged exposure to high temperatures can increase the risk of heat stress, the effects of which include fatigue, cramps, dehydration and heat stroke.<sup>35</sup>

Massachusetts Environmental Public Health Tracking (EPHT) tracks the number of emergency department (ED) visits for heat stress in each community in Massachusetts. While Revere’s age adjusted rate for heat stress ED visits was not statistically different than State rates (10.9 and 12 per 100,000 people, respectively),<sup>36</sup> certain age groups within the city are more vulnerable than others; most at risk for heat stress ED visits are youths and older adults that live alone. While ED visits by age group are not available for Revere due to confidentiality issues, statewide information shows individuals 65 and older visiting the ED at rates significantly higher than most other age groups (Figure XX). As shown in Figure 3, the proportion of Revere residents 65 and older is growing and is projected to continue increasing. Heat stress will become an important issue for the city as temperatures increase and residents age.

Figure 23: Emergency Department Visits for Heat Stress



Source: Massachusetts DPH, EPHT, 2012

<sup>34</sup> Luber, G., & McGeehin, M. (2008b). Climate change and extreme heat events. *American Journal of Preventive Medicine*, 35(5), 429–435. <http://doi.org/10.1016/j.amepre.2008.08.021>

<sup>35</sup> Massachusetts Department of Public Health, 2017

<sup>36</sup> Massachusetts Department of Public Health, Bureau of Environmental Health, EPHT. (2016). *Annual Average Age Adjusted Rates of Emergency Dep’t Visit for Heat Stress per 100,000 People, for 2011-2012* [Data set]. Retrieved from <https://matracking.ehs.state.ma.us/>

Increased temperatures and degraded air quality can also exacerbate asthma and COPD and can increase the risk of heart attack in older adults, especially those who are also diabetic or obese. Other type of extreme weather, such as floods and storms, will increase in intensity and frequency, exposing individuals to physical and psychological hazards. Green space can help mitigate the impacts of climate change related to degraded air quality, extreme heat, and storm events.

Social Determinants of Health

There is growing recognition that health and wellness are influenced by a complex array of social, economic, lifestyle, and environmental factors. Of demographic predictors of lifetime health, income, race, and education are among the most important.<sup>37</sup> As discussed in Section 3, Revere is an ethnically and racially diverse city with high percentage of residents born in another country. It is also a city where many are economically struggling.

Figure 24: Demographic Indicators

	MEDIAN HH INCOME	% HH LIVING IN POVERTY	% UNEMPLOYED	% HIGH SCHOOL GRADUATE OR HIGHER	% ASSOCIATES DEGREE OR HIGHER
<b>REVERE</b>	\$51,842	14.6%	8.1%	82.7%	25.4%
<b>STATE</b>	\$70,954	11.8%	6.8%	90.0%	49.0%

■ = significantly worse than statewide    ■ = no significant difference

Source: ACS 2016 5-Year Estimates

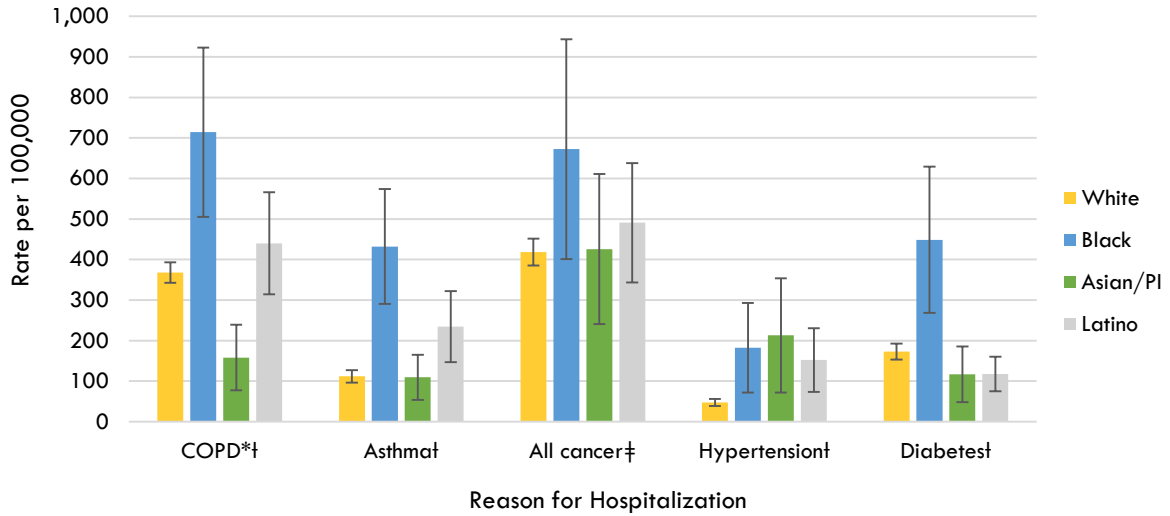
While the unemployment rate of Revere residents is not significantly different than that of the state (8% and 7%, respectively), 15% of city households are living below the poverty level.<sup>38</sup> This high percentage is reflected in the low median household income of Revere compared with the state (\$51,842 and \$70,954, respectively). The discrepancy between Revere’s high poverty level, low median income, and normal unemployment rate may be explained by the type—and relatively low pay—of employment available to residents. Supporting this connection is the comparatively low educational attainment rate for Revere residents. For all these reasons, Revere residents are at risk for health problems due to socio economic factors.

Revere residents live in an area with many health inequities relative to the rest of the state. Not only is the city performing less well on various health measures, there are also groups within the city that are performing even worse. Disparities in disease prevalence and the burden of poor health among demographic groups are well-documented. In Revere, there are significant differences in health outcome by race and ethnicity.

<sup>37</sup> Berkman, Lisa F., Ichiro Kawachi, and M. Maria Glymour, eds. Social epidemiology. Oxford University Press, 2014.

<sup>38</sup> Poverty threshold varies by size of household and number of related children. In 2016, it was \$24,339 for a family of four.

Figure 25: Hospitalizations by Race and Ethnicity



†: 3 year aggregate rates, 2012-2014; ‡: 3 year aggregate rates, 2009-2011  
 Source: Massachusetts Department of Health MassCHIP

In general, white residents in Revere have lower hospitalization rates than residents of other races or ethnicities. Residents identifying as Latino or Asian/Pacific Islander are hospitalized at rates similar to white residents with two notable exceptions: COPD rates are substantially lower for Asian/Pacific Islander residents and hypertension rates are significantly higher for all races/ethnicities compared to whites. When compared to white residents, black residents have hospitalization rates substantially higher for almost every chronic disease analyzed. The diabetes rates amongst Revere’s black population are excessively higher than all other races and ethnicities. Racial minorities and low-income households are disproportionately likely to live near a major road where ultrafine particle pollution is drastically elevated.<sup>39,40</sup>

Disparities are present in reported social determinants of health as well. In the 2015 Community Health Needs Assessment, participants of Latino descent reported food and housing insecurity at double or triple the rates of their non-Latino counterparts. They were also more focused on public safety issues in the community and parks.<sup>41</sup> Mental and physical health are exacerbated by community conditions such as a lack of affordable housing and food options.

Given the health promoting effects of open space, parks, and recreation programs, access to these resources is considered part of health equity. The Trust for Public Land’s Park Serve platform provides data on the areas of greatest need for parks within a city. By taking a measure of 10-minute walk accessibility to park, playground, and natural space, Park Serve emphasizes those neighborhoods most underserved by current open space and recreation opportunities.<sup>42</sup>

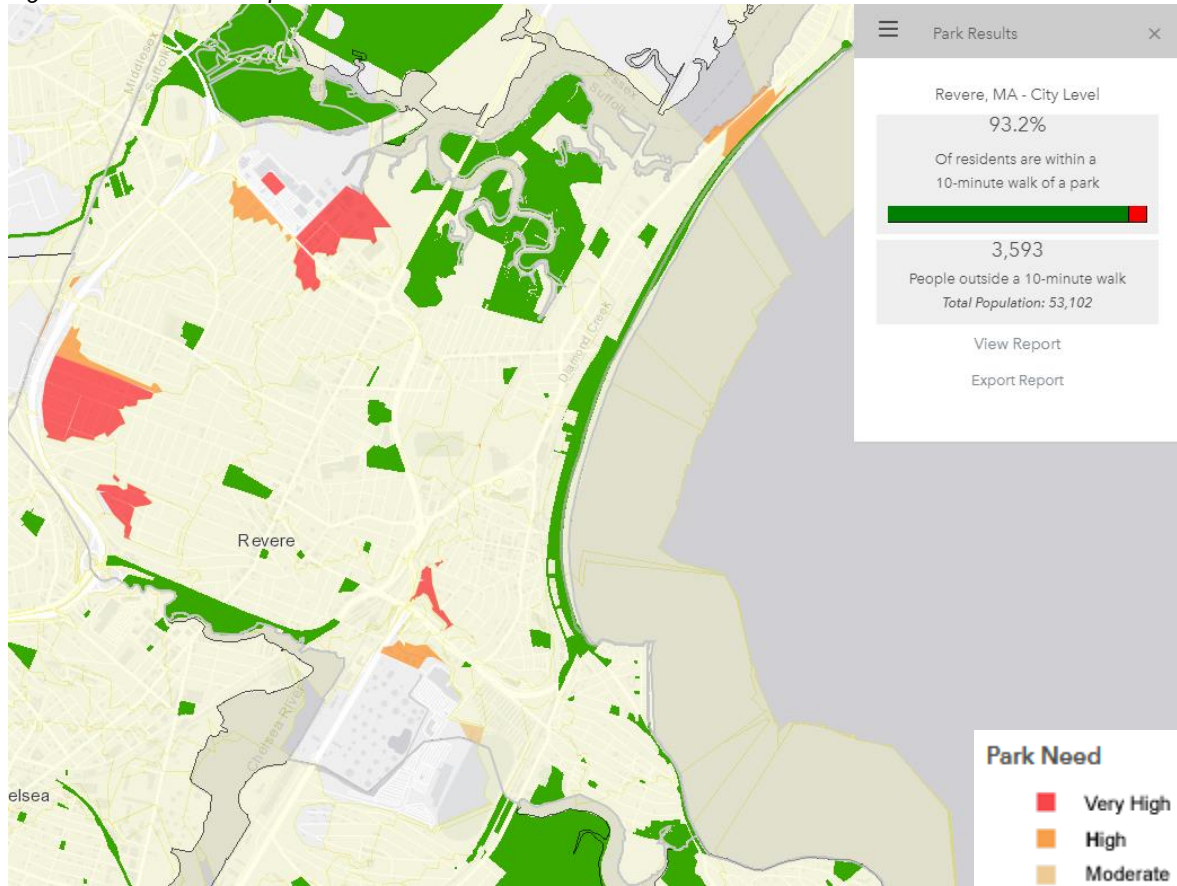
<sup>39</sup> Rowangould, Gregory M. "A census of the US near-roadway population: Public health and environmental justice considerations." *i* 25 (2013): 59-67.

<sup>40</sup> Padró-Martínez, Luz T., et al. (2012)

<sup>41</sup> MGH Center for Community Health Improvement, 2015

<sup>42</sup> "Park Serve," Trust for Public Land, <https://parkserve.org>

Figure 26: Park Serve Report for Revere



Source: The Trust for Public Land

The Shirley Avenue neighborhood, an area which has a significant concentration of residents who meet three of the criteria for environmental justice, is considered an underserved area by Park Serve. There are also clusters of very high park need in West Revere and Northgate, and an area of high need at the Oak Island and Point of Pines border. These locations all meet at least one of the environmental justice criteria.

## SECTION 4: ENVIRONMENTAL INVENTORY AND ANALYSIS

### GEOLOGY, SOILS, AND TOPOGRAPHY

Revere contains a variety of topographical conditions, ranging from flat lowland plains to areas of steep slope. This topography offers the opportunity for a variety of landscapes, including vistas of its own natural features, the ocean, and the Boston skyline. There are bedrock outcrops in the northern section of Revere which are the eroded remains of the fault line created millions of years ago by geological activity in the earth's crust. The bedrock in North Revere is a high grade of flint hard granite that is quarried and used in road construction. This bedrock, known as the Boston Basin, is part of a ridge that circles Boston and includes the Blue Hills south of Boston.

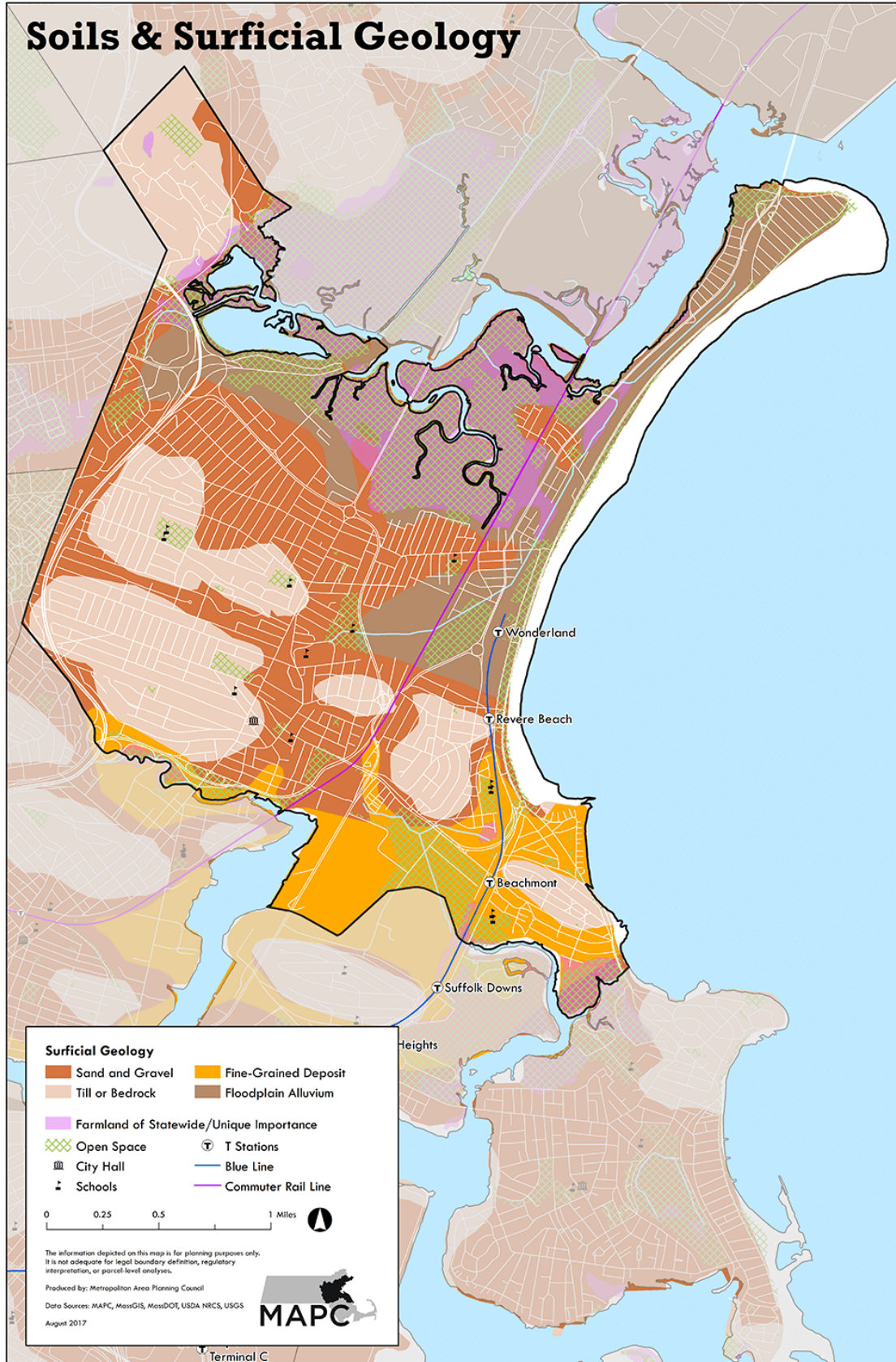
The majority of Revere, however, might best be characterized as flat with protruding hilly islands. The hills are drumlins of various sizes that were formed by glacial action more than 10,000 years. At that time, the glacial ice that had buried Revere and the rest of the Boston Basin began receding in response to a warming of the climate. Geologists believe that the receding glacier gathered till and clay into sticky masses as it ground across soft bedrock. As the masses accumulated more till, the drumlins were formed into their characteristic smooth oval shape pointing in the direction of the ice's movement. The original geological formations and the subsequent glaciation also created a lowland section that was mostly salt marshes and alluvial deposits. Figure 27 shows Revere's surficial geology.

The following information on Revere's soils was obtained from the United States Department of Agriculture's Natural Resource Conservation Service (USDA NRCS) Soil Survey, a web-based tool that produces soil maps for almost every county in the nation. According to the Soil Survey, the dominant soil types found Revere are: Newport-Urban land complex; Urdothents, wet substratum; Urban land, wet substratum; and Ipswich mucky peat. The Newport-Urban land complex consists of very deep, sloping, and well-drained soil that is found on drumlins throughout Revere and the rest of the Boston Basin.

Urdothents, wet substratum, consists of filled areas that were previously tidal marshes, bays, harbors, etc. The fill generally consists of refuse, rubble, and mixed soil material. According to the Soil Survey, the parent material for Urdothents, wet substratum, is: "Excavated and filled sandy and gravelly human transported material over highly-decomposed herbaceous organic material." Runoff from these areas is slow, and water tends to pond on the surface after intensive rain. The season high water table is in the lower part of the substratum.

Urban land, wet substratum, consists of Urban land developed in areas of Udorthents, wet substratum. The term "Urban land" refers to excavated, filled, and made land that lacks a natural soil profile due to human activities. In this map unit, impervious surfaces cover at least 75% of the land surface. Consequently, almost all rainfall runs off this soil type and a storm drainage system is needed to control excessive runoff.

Figure 27: Soils & Surficial Geology Map



Lastly, Ipswich mucky peat is a very poorly drained soil found in tidal marshes and estuaries on Massachusetts Bay, such as Rumney Marsh in Revere. This soil is subject to tidal flooding twice a day and is considered farmland of unique importance. While it is poorly suited to development (unfilled), Ipswich mucky peat is well suited to habitat for wetland wildlife.

## LANDSCAPE CHARACTER

The landscape character of the city is dominated by Revere Beach, a unique three-mile stretch of uninterrupted crescent shaped beach under the control of the Massachusetts Division of Conservation and Recreation (DCR). The beach has always been the dominant image of Revere and a focal point of recreational activities and opportunities.

*Aerial of Revere Beach and Surrounding Area*



Source: [RevereBeach.com](http://RevereBeach.com)

Revere's hundreds of acres of marshland represent another unique feature of the city's landscape. In 1988, a portion of Revere was designated as the Rumney Marshes Area of Critical Environmental Concern (ACEC). Salt marshes, mud flats, and shallow subtidal channels provide one of the most biologically significant estuaries on the North Shore. The Rumney Marshes ACEC also includes Belle Isle Marsh, although the two marshes are not contiguous.

Up until a few decades ago, the area known as North Revere was largely rural in nature. As the city becomes more built out, the area has been targeted for new development. Projects completed in recent years include a new hotel off Route 1 and the residential development of the former Rowe's Quarry in Malden and Revere. The remainder of Revere is typical of an urban core city, with a combination of many hills and flat spaces. Most of Revere is fully developed.



## WATER RESOURCES

Revere contains a wealth of water and water-related resources. Revere’s eastern border is the Atlantic Ocean and its waterfront is home to a mixture of residential, commercial, and recreational uses. The coast includes Revere Beach, Short Beach in the Beachmont neighborhood, and a private beach in the Point of Pines neighborhood. Water resources are shown in Figure 28.

### Watersheds

A watershed is an area of land that drains into one river system or body of water. The southern portion of Revere is located in the Mystic River Watershed while the rest of the city lies within the North Coastal Watershed. The Mystic River Watershed covers an area of 76 square miles and includes all the land area that drains into the Mystic River. Its headwaters form the Aberjona River in Reading and then flow into the Upper Mystic Lake in Winchester. From the Lower Mystic Lake, the Mystic River flows through a number of Inner Core communities before emptying into Boston Harbor.<sup>43</sup> While the Mystic River does not flow through Revere, land in southern Revere drains into its watershed.

The Mystic River Watershed Association (MyRWA) was founded in 1972 to protect and restore natural resources in the 22-community watershed. The organization is actively involved in assessing water quality conditions, invasive plant removal, river herring monitoring, and advocacy on behalf of the communities in the watershed. In addition, MyRWA has played an instrumental role in the visioning, design, and planning of the Mystic River Greenway system of parks and paths.<sup>44</sup>

The North Coastal Watershed has a drainage area of approximately 168 square miles, and it encompasses all or part of five river sub-basins (the Danvers, Essex, Saugus, Pines, and Annisquam Rivers). There are over 2,400 lakes and ponds within the North Coastal Watershed that, combined, support a population of approximately 500,000 people. Revere is one of 26 communities within the North Coastal Watershed. The Massachusetts Executive Office of Environmental Affairs has developed priorities for future planning for the North Coastal Watershed, including:

- Working to reduce contaminated stormwater emanating from street drainage systems along highways and local roads’
- Implementing sustainable growth management techniques and innovative land use planning, by addressing wastewater management;
- Conserving and protecting open space;
- Preventing the introduction of invasive plant species and reducing the loss of productive shellfish habitat; and
- Determining the impact of growth on drinking water supplies and working to maintain adequate base flows in rivers and streams.<sup>45</sup>

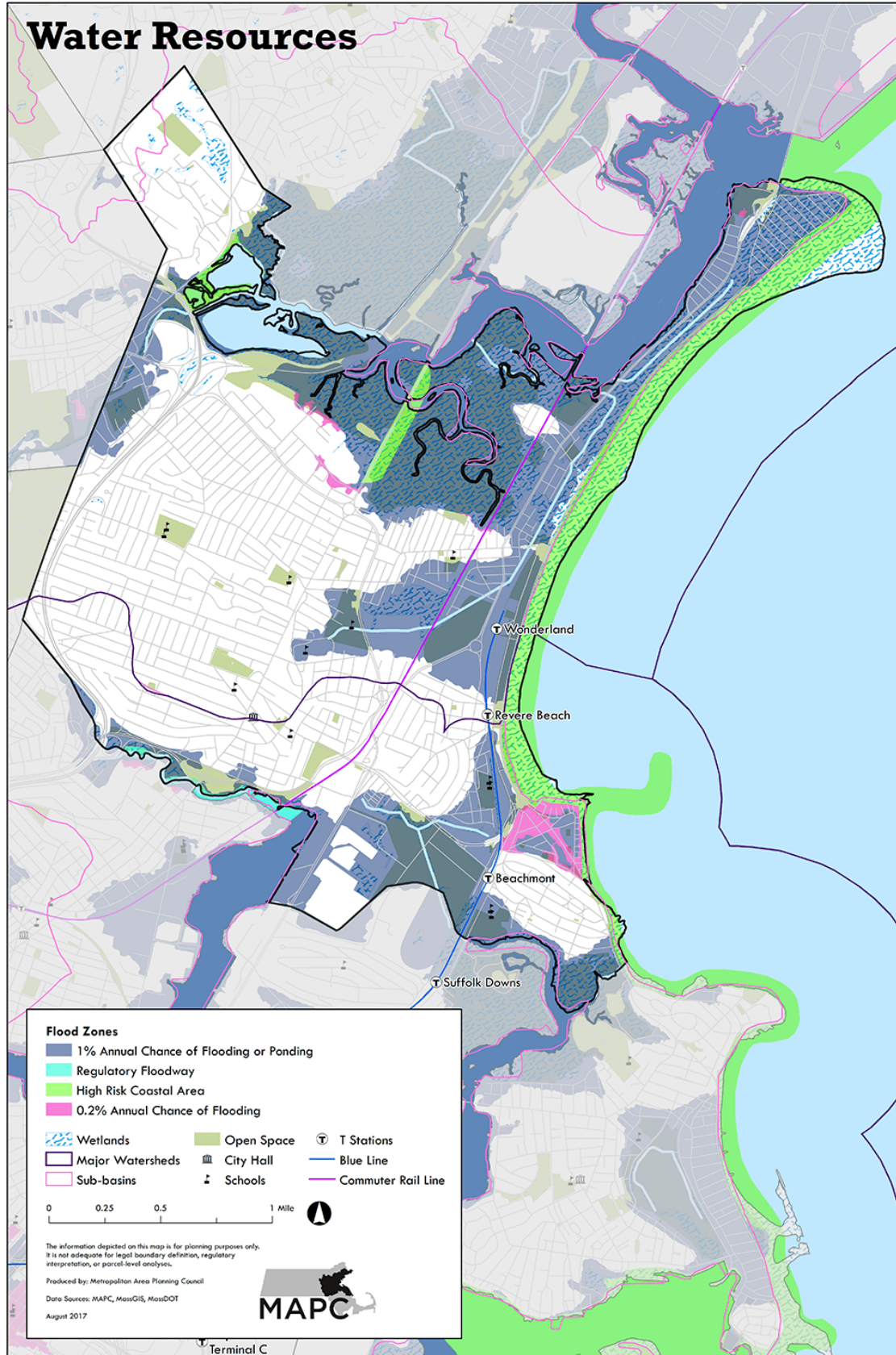
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<sup>43</sup> “Watershed Maps,” Mystic River Watershed Association, <https://mysticriver.org/atlas-maps>

<sup>44</sup> “The Work,” Mystic River Watershed Association, <https://mysticriver.org/the-work/>

<sup>45</sup> “North Coastal Watershed,” Energy and Environmental Affairs, <http://www.mass.gov/eea/waste-mgmt-recycling/water-resources/preserving-water-resources/mass-watersheds/north-coastal-watershed.html>

Figure 28: Water Resources Map



The thirteen-mile Saugus River and surrounding watershed goes from Lake Quannapowitt in Wakefield to the Rumney Marsh/Pines River estuary. Encompassing all or a part of eleven communities (Wakefield, Saugus, Lynn, Lynnfield, Reading, Stoneham, Peabody, Revere, Malden, Melrose, and Everett), this watershed is almost 47 square miles. In addition, there are over six tributaries, including the Mill River, Bennets Pond Brook, the Pines River, Hawkes Brook, Crystal Pond Brook, and Shute Brook. The area surrounding the watershed is very populated and urbanized, but there are a tremendous number of significant natural resource and historic areas with wildlife, scenic beauty, commercial fisheries, and recreational opportunities.

The Saugus River Watershed Council (SRWC) is a non-profit organization in Saugus that was founded in 1991 to protect the natural resources of the Saugus River Watershed. Restoring water quality, improving public access, restoring habitat for anadromous fish and other wildlife, and protecting critical resources like Rumney Marsh remain the primary purposes of this group. With funding from the Massachusetts Environmental Trust, SRWC is working with local stakeholders to mitigate both ongoing and future impacts of climate change along with helping local communities to develop climate adaptation strategies.

#### Surface Water

The Pines Rivers forms Revere’s northern boundary and is a tributary of the Saugus River. The Pines River flows from a 53-acre area known as the Seaplane Basin. It continues through the Saugus/Pines River Estuary, which provides shelter and food for finfish and shellfish, on its way to the Atlantic Ocean.

*Aerial of Pines River*



*Photo source: Daily Drone FPV, YouTube*

In the Point of Pines neighborhood, the Pines River is endangered by over-development for recreational use. At present, two marinas exist on the Pines River and another two are located on the northern tip of the Point of Pines along the Saugus River. Boating and marina interests would like to expand marina operations in the Pines River. However, community opposition against expansion is high due to concerns about the dangers of flooding caused by filling and increased traffic and parking problems. New or expanded marina activities

should not be undertaken without a complete study of the environmental and ecological impact on the Pines River, Rumney Marsh, and the neighboring community.

The Seaplane Basin is perhaps Revere's most significant water resource, but is one that has not realized its full potential. It was once used for seaplane takeoff and landing, but it has not been used for that purpose for many years. The Basin is secluded and visually cut off from the traffic on Broadway and Squire Road by the I-95 embankment. Even at low tide there is enough water to support boating activities, and at high tide it is a water body of true beauty. The embankment forms a walkway for almost a mile along its southern edge, stopping at the mouth of the Pines River. Another path along part of its northern edge provides an additional walkway.

In southern Revere, Sales Creek flows into the Belle Isle Inlet and Belle Isle Marsh, and Mill Creek flows into the Chelsea River. Both creeks are tidal, though Sales Creek has visual and odor problems at low tide. The Belle Isle Inlet is a major natural resource, particularly for Beachmont residents, since there is direct access from the inlet to Boston Harbor.

Mill Creek is an urban creek which has been polluted by stormwater runoff from the highway and illegal dumping. In the fall of 2006, there was a large fish kill due to a chlorine spill into the creek. The historic Slades Spice Mill, listed on the National Register of Historic Buildings and a site of Revere's earliest water-oriented industries, is located along Mill Creek and has been converted into apartments with a museum on the ground floor. From Mill Creek, water flows into the Chelsea River. Once known as Chelsea Creek, the Chelsea River was the site of the nation's first naval encounter. Revere has an industrial waterfront along the Chelsea River where oil barges off-load at the petroleum companies.

### Aquifers

Aquifers are water resources that lie underground and often provide drinking water for a community. Water saturates the soil during periods of precipitation and then migrates downward to the saturated zone. The water table is the area between the saturated zone and unsaturated zone; when more precipitation enters the aquifer than is taken out, the water table rises. There is one medium yield aquifer area in northwest Revere, though the City obtains its water from the MWRA.

### Flood Hazard Areas

The Federal Emergency Management Association (FEMA) recently updated its Flood Insurance Rate Maps (FIRM) to reflect the actual flood risks to communities in the United States. The last time the maps were published was in 1982. The modernized data is shown in FEMA's National Flood Hazard Layer (NFHL) dataset, which depicts the areas subject to flooding, grouped by flood zone, along with the base flood elevation, when known. Due to its proximity to the coast, Revere is vulnerable to both coastal and inland flooding.

High-risk coastal areas (FEMA Zones V and VE) are those that are subject to a 1% annual chance of flooding with velocity hazard, also known as wave action. Buildings and other structures in these zones are often most susceptible to damage during a hurricane or extreme weather event due to this wave action. Revere's entire eastern border, including

Revere Beach, is considered a high-risk coastal area. Development is largely absent from this area as the beach provides protection from wave damage.

A significant portion of Revere lies within FEMA Flood Zones A and AE, areas with a 1% annual chance of flooding, also known as the 100-year flood. While much of the areas within Zones A and AE are the city’s marshes, many people do live and work in the flood zones. This is particularly true in the Oak Island and Point of Pines neighborhoods, as well as in parts of Shirley Avenue and Beachmont. In the event of a hurricane or other extreme weather event, buildings in these zones are at risk of flooding. A smaller portion of the Beachmont neighborhood lies within FEMA Zone X and is subject to a 0.2% annual chance of flooding, known as the 500-year flood. Flooding in this zone is less likely than in the aforementioned zones.

According to FEMA, a regulatory floodway (also part of Zone AE) is a “channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.”<sup>46</sup> Development in these floodways must be regulated to ensure that upstream flood elevations do not increase in the event of a storm. The only regulatory floodway in Revere is along Mill Creek.

Wetlands

Some of the most significant natural features located in Revere are Rumney Marsh and Belle Isle Marsh. The development of these coastal marshes began about 10,000 years ago at the end of the last ice age. The melting ice, combined with wind, waves, and currents, washed sedimentation towards the coastline and created barrier beaches, including Revere Beach. The established beach became a buffer between the ocean and land behind it, thereby creating mud flats. Within the mud flats, marsh grass began to accumulate, along with thousands of years of debris, sediment, and dead plant life. This raised the level of the marshes up past the level of average high tide, creating a thriving environment for many different species.

At the turn of the century, Rumney Marsh became the source of residential and summer home development. Destruction of the marsh was further exacerbated between 1940 and 1970 with industrial, commercial, and additional residential development that filled in hundreds of acres of salt marsh and tidal flats. In 1978, the state and federal government formed regulations to prevent the filling of wetlands and the destruction of Rumney Marsh slowed. That being said, Revere residents and commercial establishments have continued encroaching on the southern borders of Rumney Marsh and some filling continues. The area west of Broadway is especially vulnerable.

Rumney Marshes was designated as an Area of Critical Environmental Concern (ACEC) in 1988 in order to preserve its environmental value as one of the most biologically significant salt marshes north of Boston. The Rumney Marshes ACEC is an approximately 2,800-acre urban salt marsh system extending into Revere, Saugus, Lynn, Boston, and Winthrop.<sup>47</sup> The Belle Isle Marsh Reservation is included in the ACEC as the two marshes historically formed

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<sup>46</sup> “Floodway,” Federal Emergency Management Agency, <https://www.fema.gov/floodway>

<sup>47</sup> “Rumney Marshes,” Massachusetts Department of Conservation and Recreation, <http://www.mass.gov/eea/agencies/dcr/conservation/ecology-acec/rumney-marshes.html>

a much larger salt marsh complex. Only a small portion of Belle Isle Marsh is contained within Revere's borders; the majority of its 250 acres lies within East Boston and Winthrop.

Embankments for the Boston and Maine Railroad and Broadway (Route 107) cut early paths through Rumney Marsh. In addition to their impacts on drainage, they prohibit boat passage along the Pines River except at low tide. A gravel embankment for the now-defunct Route I-95 was the latest incursion into the marsh. Wetland mitigation for the Big Dig has restored acres of marshland through the removal of a large portion of the I-95 embankment. Approximately 800,000 cubic yards of this embankment were used to re-sand Revere Beach.

Salt marsh and estuary environments created by the merging of land and sea serve as transition areas between upland areas and the ocean; they are dominated by the tides that flood and drain the area twice a day. Salt marshes have proven to be an effective defense against coastal waves and high water levels since the marsh's plants reduce the energy of water as it flows through and around them.<sup>48</sup> In addition, the mixing of salt water with fresh water from rivers and streams helps to recharge the marsh with oxygen and retain its vitality for thousands of plants and wildlife.

Wetlands in Revere are not confined to the Rumney and Belle Isle Marshes. Wetlands can be found around the various surface water bodies and in large clusters in the Point of Pines, Oak Island, and North Revere neighborhoods. There is also a large wetland behind the NECCO Factory. Revere's Conservation Commission maps and regulates activities within the city's wetlands.

## VEGETATION

Vegetation in Revere, as in most surrounding cities and towns, has been extensively altered by humans. Except for the areas of tidal marsh, Revere was once covered with forests of native trees. By 1639, early colonists had most of the trees for firewood and to open the land for farmland. After land was converted to farmland, it was later developed into the residential, commercial, and entertainment uses seen today. As a consequence, the natural vegetation of Revere has been largely eliminated. The only substantial tract of forested land in the city can be found in North Revere. About 22 acres of land in the area are owned by the Conservation Commission and have been preserved in perpetuity for conservation purposes. There is no agriculture land in Revere.

### Shade Trees

The City of Revere maintains a stock of public shade trees which provide many benefits to the community. This includes beautifying the landscape, providing shade and cool on hot days, and capturing carbon emissions. The Parks Division of the Department of Public Works is in charge of the maintenance and management of the City's urban forest through: the planting, pruning, and inspecting of City trees; the selection, purchase, and installation of

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<sup>48</sup> "Salt marsh plants key to reducing coastal erosion and flooding" (2014, University of Cambridge, [www.cam.ac.uk/research/news/salt-marsh-plants-key-to-reducing-coastal-erosion-and-flooding](http://www.cam.ac.uk/research/news/salt-marsh-plants-key-to-reducing-coastal-erosion-and-flooding))

plants; clean-up of storm damage; condemned tree removals; contracted forestry services and tree plantings; and maintaining ground irrigation systems.<sup>49</sup>

Wetland Vegetation

Both Rumney and Belle Isle Marshes are salt marshes, an increasingly rare natural community type in Massachusetts. Salt marshes are considered one of the most productive ecosystems on Earth. Vegetation in a salt marsh is salt-tolerant, providing the basis of the complex food chains in both estuarine and marine environments. Massachusetts has lost a large part of its salt marsh habitat, particularly due to the dredging and filling of Back Bay in the 1800s.

Since salt marshes are subject to oceanic tides, vegetation varies based on the tide and relative location in the salt marsh. Between the low and mean high tide, saltwater cord-grass dominates the low marsh area. Salt-hay mixed with spike grass dominates between the mean high tide and the spring high tide. Towards the upper edges of the marsh, salt tolerant species like black grass, lavender, and seaside goldenrod are common.<sup>50</sup>

*Belle Isle Marsh Vegetation*



Source: Boston University Community Service Center

In 2003, the Massachusetts Executive Office of Environmental Affairs, with input from public agencies and non-profit organizations, prepared a Salt Marsh Restoration Plan for the Rumney Marshes Area of Critical Environmental Concern (ACEC). The plan highlights numerous opportunities for salt marsh restoration projects within the ACEC, including six potential restoration sites in Revere, two in Boston, and eight in Saugus totaling about 120 acres. The plan also includes a set of restoration goals for the ACEC.

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<sup>49</sup> "Parks Division," City of Revere, <https://www.revere.org/departments/public-works/parks-division>

<sup>50</sup> *Classification of Natural Communities of Massachusetts, Version 2.0*, MA NHESP

Rare Species

As a part of the Massachusetts Endangered Species Act (MESA), the population status of rare species, whether they are plants or animals, is described using three categories: special concern, threatened, and endangered. Species of special concern have either experienced a decline that could threaten the species without intervention, or whose populations are so small, localized, or dependent upon specialized habitats that they could become threatened. Threatened species are likely to become endangered in the foreseeable future. Endangered species are in danger of extirpation from Massachusetts. Figure 29 show the rare plants that have been spotted in Revere:

Figure 29: Rare Plant Species Observed in Revere

Common Name	Scientific Name	MESA Status	Last Spotted
Purple Giant Hyssop	<i>Agastache scrophulariifolia</i>	E	1917
Hairy Agrimony	<i>Agrimonia pubescens</i>	T	1913
Purple Milkweed	<i>Asclepias purpurascens</i>	E	1896
Linear-leaved Milkweed	<i>Asclepias verticillata</i>	T	1918
Hairy Wild Rye	<i>Elymus villosus</i>	E	1909
Andrews' Bottle Gentian	<i>Gentiana andrewsii</i>	E	1882
Swamp Lousewort	<i>Pedicularis lanceolata</i>	E	Historic
Sea-beach Knotweed	<i>Polygonum glaucum</i>	SC	Historic
Long-styled Sanicle	<i>Sanicula odorata</i>	T	1910
American Sea-blite	<i>Suaeda calceoliformis</i>	SC	1897

Source: Natural Heritage & Endangered Species Program, Rare Species by Town Viewer

Mapping Projects

In partnership with the Nature Conservancy, the Natural Heritage & Endangered Species Program (NHESP) produced strategic biodiversity conservation plans for every city and town in Massachusetts in 2012. *BioMap2* is designed to focus “land protection and stewardship on the areas that are most critical for ensuring the long-term persistence of rare and other native species and their habitats, exemplary natural communities, and a diversity of ecosystems.”<sup>51</sup> The project was developed to protect the state’s biodiversity in the context of global climate change.

As a part of the *BioMap2* mapping project, two components in each community are identified: Core Habitat and Critical Natural Landscape. Core Habitat describes areas that are crucial to the long-term existence of rare species, as well as a wide diversity of species in an intact ecosystem. According to *BioMap2*, 190 acres in Revere are considered Core

<sup>51</sup> “BioMap2,” MA EOEEA, [www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/land-protection-and-management/biomap2/](http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/land-protection-and-management/biomap2/)



Habitat, and they are all located along Revere’s beachfront. Of these, only 22 acres (12.2%) are protected in perpetuity.<sup>52</sup>

Critical Natural Landscape describes large areas of natural “Landscape Blocks” that are not greatly impacted by development. As the world’s climate changes, these areas, if protected, will provide habitat for native species, enhance ecological resiliency to disasters, and connect habitats. About 465 acres of Revere is considered Critical Natural Landscape, over two thirds (355 acres) of which are protected in perpetuity. Rumney and Belle Isle Marshes make up the Critical Natural Landscape areas.<sup>53</sup>

Figure 30: BioMap2



Source: Natural Heritage & Endangered Species Program, BioMap2: Revere

<sup>52</sup> “BioMap2: Revere” (2012), MassGIS, [maps.massgis.state.ma.us/dfg/biomap/pdf/town\\_core/Revere.pdf](https://maps.massgis.state.ma.us/dfg/biomap/pdf/town_core/Revere.pdf)

<sup>53</sup> *Ibid*

## FISHERIES AND WILDLIFE

### Inventory

Many shellfish flats in Revere are productive and, in some cases, provide an abundant resource for the commercial harvest of soft-shelled clams. These areas are classified by the Division of Marine Fisheries as “Conditionally Restricted” because they have the potential to be moderately contaminated with fecal bacteria and are only available to licensed commercial harvesters who must obtain both a city and a state permit. Fishermen with “master digger” shellfish licenses are required to take their catch to the State-operated purification plant in Newburyport to undergo a three-day purification process. The number of registered harvesters in Revere fluctuates and averages from 15 to 25.

Only three waterbodies off Revere are classified as a designated shellfish growing areas, one of which is the Lower Pines River and Center Bar. Here, the growing area begins at the mouth of the Pines River by Gibson Park and extends south and west to the Route 107 bridge. The other areas in Revere that are classified as “Conditionally Restricted” are the Seaplane Basin and Point of Pines.

Most shellfishing areas in Revere are classified as “Prohibited” and are closed to all shellfish harvesting, including the Upper Pines River. No shellfish beds (specifically clam flats) in Revere are open for recreational harvesting at any time. It is illegal to dig for surf clams on the beaches in Revere as well.

Sport fish, including winter flounder, mackerel, striped bass, smelt and codfish can all be found in the ocean and river waters of Revere. Fishermen can be seen year round lining the bridge on Broadway as it passes over the Pines along the banks of Point of Pines, and on the Seaplane Basin. Alteration of the marshes would have significant effects on the food chain and life cycle of these fish. The winter flounder, for example, spawns in marshland and it has been determined that most sea creatures spend some of their life in an estuarine environment or depend on species that do.

Birds are the predominant form of wildlife in Revere and gulls comprise the largest segment of the bird population. They feed on marine life and the abundant clams, and scavenge for waste. The absence of a wealth of other bird species that can usually be found in marsh environments is probably due to the lack of insects, which are controlled by pesticide spraying. Ditches have also been dug adjacent to Rumney Marsh since the 1930s to keep the mosquito population down.

### Vernal Pools

Vernal pools are small, shallow ponds that do not support fish due to annual or semi-annual periods of dryness. They are very important to a variety of wildlife species, particularly amphibians, due to the absence of fish predators. Some amphibians breed exclusively in vernal pools while others spend their entire life cycles in such pools. NHESP has a program by which vernal pools can be certified. Certified vernal pools are protected from development if they fall under the jurisdiction of the Massachusetts Wetlands Protection Act regulations. They also have some protections under other State programs. There are currently no certified vernal pools in Revere.

Rare Species

NHESP has identified three rare animal species in Revere: Twelve-spotted Tiger Beetle, Piping Plover, and Common Tern. Like with plants, they are described as special concern, threatened, or endangered. The twelve-spotted Tiger Beetle (*Cicindela duodecimguttata*) is a species of special concern that was last spotted in Revere in 1915. Typically found in and around wetlands, the beetle is named for its tiger-like behavior of chasing down and capturing prey with its mandibles.<sup>54</sup>

Piping Plover (*Charadrius melodus*) is a threatened species at the state and federal level. Last observed in Revere in 2016, it is a small shorebird whose populations declined due to hunting for fashion accessories. More recently, these birds have been impacted by increased predation and the degradation and loss of nesting habitat, including beach development. Each spring, Piping Plovers return to Massachusetts coastal beaches to nest and raise their young. The Department of Conservation and Recreation (DCR) maintains nesting sites for the Piping Plover and other state-listed terns on Revere Beach which, while very important from an ecological standpoint, can interrupt access to parts of the beach. Symbolic fences exist to protect nesting habitat and prevent people from harming or harassing the birds and their eggs, which is illegal due to State and Federal regulations.<sup>55</sup> The Common Tern (*Sterna hirundo*) is another shorebird that nests on Revere Beach. It is a species of special concern and was last spotted in Revere in 2015.

Nesting Site on Revere Beach



Source: Suzanne Kreiter, Boston Globe

Most of Revere’s coastline is considered a Priority Habitat of Rare Species, including Revere Beach, the Point of Pines Beach, and the mouth of the Pines River. This designation from

<sup>54</sup> “Twelve-spotted Tiger Beetle,” Massachusetts Natural Heritage & Endangered Species Program, [www.mass.gov/files/documents/2016/08/tm/cicindela-duodecimguttata.pdf](http://www.mass.gov/files/documents/2016/08/tm/cicindela-duodecimguttata.pdf)

<sup>55</sup> “Living with Rare Species,” Massachusetts Department of Conservation and Recreation, [www.mass.gov/eea/docs/dcr/parks/notices/revere-pipingplover.pdf](http://www.mass.gov/eea/docs/dcr/parks/notices/revere-pipingplover.pdf)

NHESP is based on the known geographical extent of habitat for all state-listed rare species and is codified under MESA. Since habitat alterations within Priority Habitats could result in a take of a state-listed species, they are subject to regulatory review by NHESP.<sup>56</sup>

### Wildlife Corridors

Revere's miles of uninterrupted beaches represent an extensive wildlife for birds and other animals. For example, Revere Beach is a stop on the long coastal journey Piping Plovers take each the year; the birds return to their breeding grounds in Massachusetts in late March or April. Between late July and early September, Piping Plovers begin migrating southward, from North Carolina to the Caribbean. Though they usually change mates each year, adult birds often return to the same nesting area every spring.<sup>57</sup>

## SCENIC RESOURCES AND UNIQUE ENVIRONMENTS

Revere has quite a few areas that are unique and of importance to the city. These are shown on Figure 31.

### Revere Beach

By far the most scenic natural resource in Revere is the 3.1-mile, crescent-shaped Revere Beach Reservation, a National Historic Landmark. Opened as the first public beach in the country in 1896, the beach has brought together scenic beauty, recreation, and arts and culture throughout its history. Access by road and rail made Revere Beach a popular destination for residents in the greater Boston area. Revere Beach Parkway was home to many ballrooms and dance venues featuring live bands as well as multiple amusement parks.<sup>58</sup> The historic Revere Beach Bandstand and pavilions were restored in the 1980s and help retain the historic character and cultural infrastructure of the original design. Today, the beach hosts Revere's International Sand Sculpting Festival and the Revere Beach Art Festival. The Parkway is the site of the Revere Beach Creative District, planned as a revitalized corridor of housing, restaurants, art galleries, and cultural programming.<sup>59</sup>

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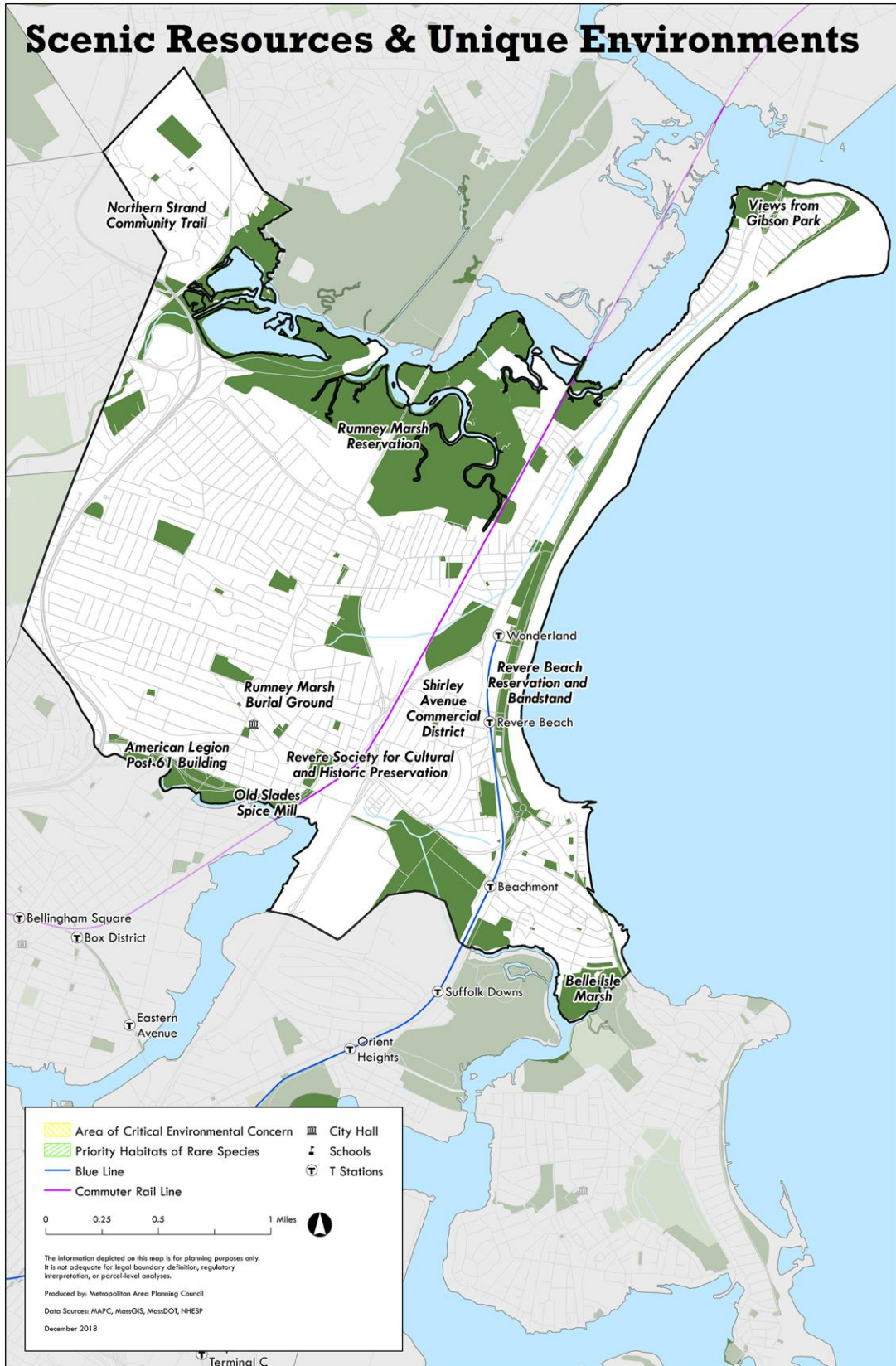
<sup>56</sup> "Regulatory Maps: Priority & Estimated Habitats," NHESP, [www.mass.gov/service-details/regulatory-maps-priority-estimated-habitats](http://www.mass.gov/service-details/regulatory-maps-priority-estimated-habitats)

<sup>57</sup> "Piping Plover," NHESP, <https://www.mass.gov/files/2017-08/charadrius-melodus.pdf>

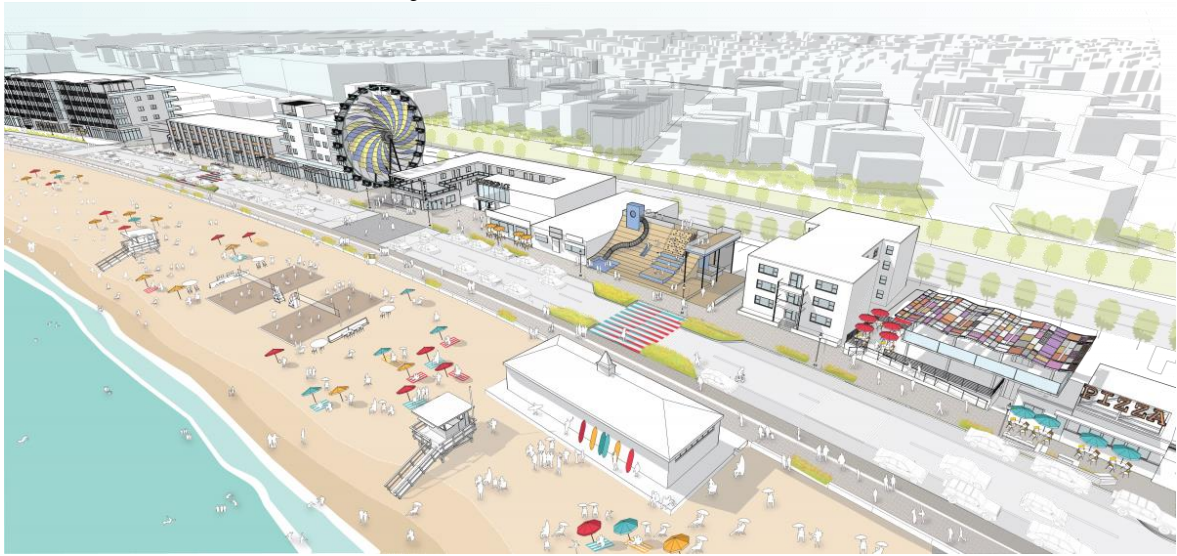
<sup>58</sup> "History," Revere Society for Cultural & Historic Preservation (1996), City of Revere Mayor's Office, [www.revere.org/mayors-office/history](http://www.revere.org/mayors-office/history)

<sup>59</sup> Utile Design (2015), Revere Beach Creative District Master Plan Summary, [www.utiledesign.com/work/revere-beach-creative-district/](http://www.utiledesign.com/work/revere-beach-creative-district/)

Figure 31: Scenic Resources and Unique Environments Map



Revere Beach Creative District Rendering



Source: Utile Design

### Rumney Marsh Reservation

Another majestic scenic view is provided by Rumney Marsh, which sits at Revere’s northern border with Saugus. The reservation provides scenic views, recreation activities like fishing and canoeing, as well as natural and cultural history tours.<sup>60</sup> In 1988, a portion of Revere was designated as the Rumney Marshes Area of Critical Environmental Concern (ACEC). Salt marshes, mud flats, and shallow subtidal channels provide one of the most biologically significant estuaries on the North Shore.

### Rumney Marsh Burial Ground

Listed on the National Register of Historic Places in 2004, Rumney Marsh Burial Ground is an early colonial burying ground that remained in active use through 1930. It features an impressive number of 18<sup>th</sup> century slate grave markers and is the final resting place of veterans of colonial wars, the Revolutionary War, and the Civil War, as well as of sixteen slaves or former slaves. The Rumney Marsh Burial Ground Renovation Committee has coordinated fundraising for the cemetery’s preservation, as well as public events to commemorate the Civil War and the Emancipation Proclamation.<sup>61</sup>

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<sup>60</sup> “Rumney Marsh Reservation,” Massachusetts Department of Conservation and Recreation, [www.mass.gov/locations/rumney-marsh-reservation](http://www.mass.gov/locations/rumney-marsh-reservation)

<sup>61</sup> “About Rumney Marsh Burying Ground,” Rumney Marsh Burying Ground Renovation Committee, <http://rmbgrc.org/about/about-rumney-marsh-burying-ground/>

Rumney Marsh Burial Ground



Source: Massachusetts Cultural Resource Information System (MACRS)

### St. Anthony of Padua Catholic Church Memorial Statues

Two statues sit outside of the Saint Anthony of Padua Catholic Church: a statue of St. Anthony of Padua himself and one of Christopher Columbus that was originally located in front of the Cathedral of the Holy Cross in Boston. Due to social and political controversy associated with the statue, Cardinal O’Connell presented the statue as a gift to the Italian community of Revere in 1925.<sup>62</sup> The statue continues to mark the starting point of Revere’s annual Columbus Day Parade.

St. Anthony of Padua Catholic Church



Source: MACRIS

<sup>62</sup> Capodilupo, Justin, MACRIS Inventory Form REV.955. Columbus, Christopher Statue.

American Legion Building, Post 61, War Memorial Statues

Two additional statues preside over the grounds outside the Town Offices in the American Legion Post 61 building, a historic building at 249 Broadway in downtown Revere. These statues, dedicated in the 1930s to honor veterans of the Civil War and the Spanish War honor Revere’s military contributions. The grounds in front of the American Legion Building are an important site of local events and culture. The Revere Farmer’s Market and Revere’s Summer Music Series turn the small park into a gathering space and cultural activity hub. The memorial statues, manicured grass and attractive landscaping contribute to its value as a scenic resource.

*American Legion Building*



Source: MACRIS

Revere Society for Cultural and Historic Preservation

The Revere Society for Cultural and Historic Preservation (RSCHP) is a 501c3 tax-exempt non-profit organization that was founded in 1994. As an all-volunteer organization it was formed to foster, preserve, protect and promote community wide interest in the culture and history of the City of Revere. The Society seeks to educate students and residents of the community and to develop broad awareness of the city’s history to instill pride in its citizens about their heritage. The Society renovated the 100-year-old former Immaculate Conception rectory to house a cultural and historic center. This architecturally significant building was saved from the wrecking ball and has been restored to the Colonial Revival period. This elegant building has also been placed on the National Register of Historic Places. There is no admission for members and a \$3 donation is suggested for non-members.

Members of the organization identify, collect, catalogue and display artifacts, photographs, and local historical items for viewing, educational research projects and resource material. Its public offerings include guided tours of the museum, educational presentations, and operate a gift shop with memorabilia and artwork. RSCHP conducts fundraising events and activities to support the organization.



A needs assessment details \$3 million of restoration work. This assessment identifies updates to the electrical and plumbing, fire safety, security, and moisture protection systems, as well as work on the exterior downspouts, gutters, areas of siding, and new paint as the most pressing restoration work needed.

Northern Strand Community Trail

Revere’s one-mile segment of the Northern Strand Community Trail opened in 2015 and offers scenic views of Rumney Marsh. The trail offers opportunities to connect with local food production in Everett and Malden, both of which have established community gardens along their trail segments. The community garden located along Everett’s section of the Trail also features a mural painted by local high school students. Working with MAPC, the City of Everett is also planning a project that builds a community garden within a sculptural earthwork to celebrate the local food cultures of Everett’s residents. Over time, the trail can become a place of cultural expression and exchange across its linked communities.

Shirley Avenue Commercial District

The Shirley Avenue Commercial District extends west from the Revere Beach MBTA station and represents an active, ethnically diverse commercial corridor close to the planned Revere Beach Creative District. Cultural events hosted in the district include the Shirley Avenue Cultural Fest and the Moroccan Cultural Day celebration.

*5<sup>th</sup> Annual Shirley Avenue Cultural Fest*



*Source: Ira Novoselsky, Twitter*

## ENVIRONMENTAL CHALLENGES

### Hazardous Waste Sites

As with any community with substantial commercial and industrial development, Revere has a number of hazardous waste disposal sites. Hazardous waste is considered to be any human-created or modified substance released into the environment that constitutes a present or potential threat to public health and safety, to plants and animals, and to the quality and quantity of the local drinking water supply. Hazardous wastes can be solid, semi-solid, liquid, or gaseous in nature. These wastes pose a threat when improperly stored, used, transported, disposed of, treated, or mismanaged.

The Massachusetts Department of Environmental Protection (MassDEP) Bureau of Waste Site Cleanup has identified 464 hazardous waste sites in Revere in various stages of assessment and cleanup. MassDEP has files for each site regarding their contamination and associated remediation; the files can be viewed online through the Reportable Release Lookup Database. The listed sites are those that may contain potentially contaminated soil, water, and air. Many sites have been restored or deemed close to their original state. Of the total number of sites, 49 have Activity and Use Limitations (AULs) placed upon them. AULs are legal restrictions meant to limit future exposure to contaminate that may remain on a site after cleanup. AULs are a part of the Massachusetts Contingency Plan and they allow the current and likely future use of a property to be considered during the cleanup of oil and hazardous material disposal sites. AULs provide critical information to the people who will control and use the property in the future about the risks remaining at the site. A full list of the AUL sites in Revere is provided in the appendix.

The majority of hazardous waste sites are considered non-priority by DEP and are being cleaned up by the private sector under Chapter 21E of the Massachusetts General Laws. A number of these sites are from oil spills associated with the oil tank farms located along Lee Burbank Highway (Route 1A) in Southern Revere. Others are associated with leaks from gas stations, apartment buildings, and other commercial/industrial properties.

There have been some spills or releases associated with schools, which are also the location of parks, in Revere. These include an oil spill at the Beachmont School in 2002 and again in 2012, an oil and hazardous material spill at the Rumney Marsh School in 2006, an oil spill at the Whelan School in 2006, and an oil spill at the Lincoln School in 2009.

### Landfills

In 1995, the City of Revere completed the capping of a solid waste landfill in North Revere. Under the direction of the Massachusetts Department of Environmental Protection (MassDEP), the 17-acre site was successfully converted to open space. Solid waste from Revere has since been sent to Wheelabrator Saugus, a waste-to-energy facility across the border in Saugus which has an incinerator and large landfill for depositing the ash.

Wheelabrator Saugus



Source: *The Daily Item*

Environmental groups and residents of Revere and neighboring Saugus have expressed strong concerns about the Wheelabrator site and the effect of its contaminated ash on people and the environment, particularly on the Rumney Marsh Area of Critical Environmental Concern. From a public health standpoint, the gravest concern regards a potential link between contaminated ash and higher cancer rates. Further, Wheelabrator’s coastal location poses risks associated with the potential erosion of the ash landfill, and pollution of the Saugus and Pines Rivers as a result of sea level rise and increased storm surge linked to climate change.<sup>63</sup>

Once Wheelabrator’s ash landfill reaches disposal capacity (which it likely will in the next year or two), environmental permits outlining the final closure plan require capping the landfill and then planting a grassy seed mix designed to enhance bird habitat in the Rumney Marshes ACEC. When it is completely closed and capped, the surface of the landfill will enhance wildlife habitat in Rumney Marsh and improve views afforded by the walkways adjacent to the landfill. That being said, Wheelabrator submitted a request to the MassDEP for a permit to reopen the closed portion of the ash landfill in order to dispose approximately 500,000 tons of additional ash over a five years. MassDEP issued a provisional decision on November 1, 2017 allowing such disposal.

### Chronic Flooding

Revere experiences chronic localized flooding in a number of areas of the city. These areas, which were identified and described in the City’s 2014 update to its Hazard Mitigation Plan, are described in Figure 32. The city contains a number repetitive loss structures, National Flood Insurance Program (NFIP)-insured structures that have had at least two paid flood losses of more than \$1,000 each in any ten-year period since 1978.<sup>64</sup> Large clusters of these structures, primarily residences, are present in the Point of Pines and Beachmont neighborhoods. A handful of properties in Revere have been bought out with funds from the Federal Emergency Management Agency (FEMA) and are now maintained by the City as passive open space.

<sup>63</sup> Saugus River Watershed (2016), <http://www.saugusriver.org/documents/SRWCSStatementWheelabratorMay2016.pdf>

<sup>64</sup> “Definitions,” FEMA, [www.fema.gov/national-flood-insurance-program/definitions](http://www.fema.gov/national-flood-insurance-program/definitions)

Figure 32: Locally-Identified Areas of Flooding

Area	Description of Flooding
Asti Avenue Neighborhood	Floods consistently during combined high tide/ precipitation events of greater than 1 inch; there is very limited flood storage capacity in this low lying coastal area
Elliot Circle	This site, which is adjacent to Revere Beach, experiences overtopping during combined high tide and storm events
Pump Station at Martin Street	Aging sewer pump station adjacent to Revere Beach that fails during high tide/storm events
Pump Station at Oak Island	Aging sewer pump station that fails during high tide/storm events
Point of Pines	Seawall along Miller Avenue is overtopped during storm events; needs repairs from North Shore Road to River Avenue
Cary Circle to Alden Avenue	Storm surge during high tide/storm events
Rice Avenue near Yacht Club	Flooding due to storm surge/high tide events
Revere Beach	The beach, from Cary Circle to Eliot Circle, is overtopped by waves during high tide and coastal storm surge events
Winthrop Parkway Neighborhood	Failing floodgate allows overtopping by storm surge and high tide during coastal storm events
Washburn Avenue Drainage Outfall	Backs up and causes localized flooding during high precipitation and storm events.
Belle Isle Avenue Neighborhood	Flooding of neighborhood occurs when storm surge from Belle Isle Inlet overtops Belle Isle Avenue
Pearl Avenue	Backup of existing 24-inch storm drain causes localized flooding along lower elevation stretches of Pearl Avenue

Source: City of Revere Hazard Mitigation Plan Update, 2014

**Erosion and Sedimentation**

Erosion describes the wearing away of land surfaces (primarily soil and rock debris) by natural forces, such as running water, wind, ice, and others.<sup>65</sup> In Revere, erosion is mainly caused by construction activity or wave action along the beaches.

<sup>65</sup> MassDEP (2003), "Erosion and Sediment Control Guidelines for Urban and Suburban Areas," <http://www.mass.gov/eea/docs/dep/water/esfull.pdf>

Revere Beach suffers from continual erosion and accretion, or sand build-up, occurs in the southerly section from Revere Street to Beachmont. The Army Corps of Engineers completed a beach nourishment program for Revere Beach in the summer of 1991. In order to halt the increasing decline of the beach and adjacent area, roughly 800,000 cubic yards of screened sand were deposited along the three-mile shoreline. This increased the recreational capacity of Revere Beach and provides support against flooding for the seawalls, pavilions, and buildings along the beach.

Sedimentation can be thought of as the opposite of erosion; it is the deposition of soil particles that have been transported by wind and water. In Revere, sedimentation is primarily caused by road runoff and construction-related earth disturbances. This can be minimized by following environmental regulations and best practices; the most effective way to reduce sedimentation is by controlling erosion on construction sites. If erosion cannot be controlled, it is important to trap sediment transported by runoff before it leaves the construction site and reaches streams and waterways. This can be done through sediment basins and traps, filters at storm sewer system inlets, vegetative buffer strips, and more.<sup>66</sup>

Development Impacts

There is very little developable land remaining in Revere so development impacts are limited to redevelopment projects where the original development has already resulted in land disturbance. Redevelopment of older industrial sites is done under existing environmental regulations, which means that the newer development has to adhere to higher standards than that which it is replacing.

Water Quality Issues

For many years, Revere’s municipal separate storm sewer system (MS4) was discharging pollutants from its storm drains into the Chelsea River, Sales Creek, Belle Isle Inlet, and the Pines River without a National Pollutant Discharge Elimination System (NPDES) permit. In addition to discharging raw sewage into surface water bodies, sewer blockages and capacity limitations were also resulting in basement backups in the wastewater collection system. Since illegal sanitary sewer overflows (SSOs) are a violation of the U.S. Clean Water Act, the City of Revere entered into a Consent Decree with the Department of Justice and the Environmental Protection Agency in 2010 to detect and eliminate SSOs in Revere.<sup>67</sup>

In accordance with the terms of the Consent Decree, Revere will eliminate illicit connections and cross connections between the City’s sanitary sewer system and its MS4. The City is also required to implement a Comprehensive Wastewater Management Plan and a Comprehensive Stormwater Management Plan. The improvement projects, expected to total over \$100 million, will target sources of inflow and infiltration (I/I) within the City’s aging sewer and drainage system. The construction and implementation of all remedial and control measures must be completed no later than December 31, 2022.<sup>68</sup> Revere’s Engineering Department works closely with the Department of Public Works and consultants

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<sup>66</sup> *Ibid*

<sup>67</sup> “City of Revere, Massachusetts Clean Water Act Settlement,” US EPA, [www.epa.gov/enforcement/city-revere-massachusetts-clean-water-act-settlement](http://www.epa.gov/enforcement/city-revere-massachusetts-clean-water-act-settlement)

<sup>68</sup> *Ibid*

to oversee maintenance, construction, and development related to satisfying and complying with the Consent Decree.

Some of the waterbodies in Revere are considered by the U.S. Environmental Protection Agency to be impaired or threatened for one or more uses and requiring a Total Maximum Daily Load (TMDL). According to MassDEP, “A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can accept and still meet the state’s Water Quality Standards for public health and healthy ecosystems. The federal Clean Water Act requires all states to identify waterbodies that do not meet state standards and develop TMDLs for them.”<sup>69</sup> MassDEP maintains an interactive map online of the 2014 Massachusetts Integrated List of Waters, which was approved by the EPA in 2016.<sup>70</sup>

The Pines River is considered impaired for shellfish harvesting due to fecal coliform in the water from urban runoff, discharges from the MS4, and illicit connections/hook-ups to storm sewers. Further, the Pines River receives pollution the Saugus River, its upstream source. As a result, shellfish beds in the Pines River are only open for commercial fishing and the catch must be taken to a purification plant for cleaning before consumption. A TMDL for fecal coliform has been completed for this water body.

A number of impaired waters in Revere do not have a completed TMDL and require one. Both Mill Creek and the Belle Isle Inlet are considered impaired for fish consumption due to PCB in fish tissue and shellfish harvesting due to the presence of fecal coliform. Mill Creek is an urban creek which has been polluted by stormwater runoff from the highway and illegal dumping. In the fall of 2006, there was a large fish kill due to a chlorine spill in the creek. The Chelsea River, which converges with Mill Creek under the Commuter Rail track just south of Revere, does not support any aesthetic views, aquatic life (and as a result, no fish consumption or shellfish harvesting), or contact recreation due to the high levels of multiple pollutants in the water.

Invasive Species

Invasive species are an issue in all Massachusetts communities. These plants and animals, which are exotic in origin, threaten the integrity of natural communities due to their ability to out-compete native species. Invasive aquatic plants are an issue in the Saugus River Watershed, including in Rumney Marsh. Phragmites, a pervasive common reed, plagues brackish and tidal areas of Rumney Marsh. By displacing native salt marsh species like *Spartina* (cordgrass), the invasive plant eliminates important food sources and habitat for native fauna.<sup>71</sup>

Environmental Equity

Environmental equity looks at the distribution of open space in a community and identifies areas where it may be lacking. For the most part, open space and recreation facilities are

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<sup>69</sup> “Total Maximum Daily Loads (TMDLs) Basics”, MA EOEAA  
[www.mass.gov/eea/agencies/massdep/water/watersheds/total-maximum-daily-loads-tmdls-basics.html](http://www.mass.gov/eea/agencies/massdep/water/watersheds/total-maximum-daily-loads-tmdls-basics.html)

<sup>70</sup> “2014 Integrated List of Waters Map,” MassDEP,  
<http://maps.massgis.state.ma.us/images/dep/omv/il2014viewer.htm>

<sup>71</sup> “Aquatic Invasive Plants in the Saugus River Watershed,” Saugus River Watershed Council,  
[http://www.saugusriver.org/documents/invasivesbrochure1\\_000.pdf](http://www.saugusriver.org/documents/invasivesbrochure1_000.pdf)

well distributed throughout Revere, though all areas of the city could benefit from additional investments to parks.

As mentioned in the Community Setting section, most block groups in Revere meet at least one environmental justice (EJ) criteria for minority, income, and/or English language isolation; parts of the Shirley Avenue neighborhood meet all three. While the neighborhood has access to Revere Beach, Costa Park, and Curtis Park at the Garfield School, there are still some residents who must walk more than 10 minutes to access a park, playground, or natural space. Other parts of Revere lacking easy pedestrian access to a park or other open space include the West Revere/Park Avenue and Northgate areas (see Figure 26: Park Serve Report for Revere).

# SECTION 5: INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST

## INTRODUCTION TO THE INVENTORY

The first step in being able to make decisions about future needs for open space and recreation is to have an accurate account of existing lands and facilities. This section contains an inventory of all conservation, open space, and recreation lands, both publicly and privately owned. Information on ownership, management responsibility, level of protection, and primary use the property are some of the other elements of this inventory. The areas shown in the table are depicted on Figure 33: Open Space and Recreation Inventory Map.

The importance of open space and recreation resources to a community is immense. The protection and stewardship of these assets via past, future, and current Open Space and Recreation Plans is a crucial piece in shaping an environment where people want to live. Open space and recreation resources provide opportunities for the average citizen to relax, play, and explore, and are integral to life in the City of Revere.

Open space has many different definitions and can mean different things to different people. What is considered open space in a suburban or rural community can be very different from what is considered open space in an urban community. The Open Space and Recreation Planners Workbook defines open space as “conservation land, forested land, recreation land, agricultural land, corridor parks and amenities such as small parks, green buffers along roadways or any open area that is owned by an agency or organization dedicated to conservation.” A broader definition of open space can and should include undeveloped land with conservation or recreation potential.

Open space and parks are critical to the quality of life in a community and provide a wide range of benefits. Access to parks can contribute public health benefits, enhanced property values, and improved environmental quality including air quality, water quality, and the mitigation of urban heat island effects. Public health benefits include reducing the incidence of childhood obesity by providing safe places for kids to be active. Open spaces and parks also serve as important meeting places for neighbors to get to know one another.

Determining where the open space and recreation land is located in Revere is the beginning stage of fully understanding what resources the City has and how best to manage them. Once this land has been identified, it is important to ensure its protection and maintenance into the future to help guarantee that many more generations of residents can enjoy them. According to the Division of Conservation Services, land within a community is permanently protected if it is managed by the local Conservation or Parks & Recreation Commission, by Executive Office of Energy and Environmental Affairs (EOEEA) agencies, by a nonprofit land trust, or if the municipality received state or federal monies for the improvement or purchase of the land. Typically, land owned by other City agencies or the local school system should not be presumed to be permanently protected.



Figure 33: Open Space and Recreation Inventory Map



The inventory matrix in Figure 34 includes almost 60 sites covering more than 600 acres of open space and recreation land owned and managed either by the City of Revere, the Department of Conservation and Recreation (DCR), or private entities.

The column headings of the inventory are defined below:

- **Name** - Names the open space site.
- **Owner** - Indicates the owner of the property.
- **Manager** - Indicates the agency or department responsible for managing and maintaining the property. May be the same as the owner.
- **Current Use** - Details the main use for the site and its facilities.
- **Condition** - Identifies the site condition (excellent, good, fair, or poor). City-owned open spaces and parks were surveyed to obtain a general sense of the condition of the property and any facilities located on it.
- **Recreation Potential** - Indicates the recreational use of sites. For land not used for recreational purposes, potential for recreational activities is identified. Conservation land is generally deemed to have limited recreation potential except for passive recreation such as hiking and walking. Some small tax title lands and sensitive environmental areas are presumed to have no recreational potential.
- **Funds Used** - Identifies the funds used for the acquisition of or upgrades to the site, including grant funds.
- **Zoning District** - Identifies the zoning district in which the site is located. Zoning districts are described in Figure 16 and Figure 17.
- **Level of Protection** - Indicates if the site, either by virtue of its ownership, existence of deed restrictions, or by the fact that it has received state or federal funding, is protected against conversion to some other use. Levels of protection are described in more detail in this section.
- **Public Access** - Indicates if the public can access the site. All City- and State-owned sites are publicly accessible.
- **Acres** - Gives the site's acreage or an approximation in cases where specific information was not attainable. One acre is 43,560 square feet or 1/640 of a square mile.

Figure 34: Open Space and Recreation Inventory

Name	Owner	Manager	Current Use	Condition	Recreation Potential	Funds Used	Zoning District	Level of Protection	Public Access	Acres
<b>City-Owned Active Recreation</b>										
<b>Costa Park</b>	City of Revere	Parks & Recreation	Recreation: picnic tables, benches, swings, playground equipment	Good	None planned	CDBG, Kaboom	GB	Permanent	Yes	0.2
<b>Della Russo Stadium</b>	City of Revere	Parks & Recreation	Recreation: football stadium with locker rooms, bathrooms, bleachers, track	Excellent	None planned	City	RB	Permanent	Yes	4.4
<b>Gibson Park</b>	City of Revere	Parks & Recreation	Recreation: softball field, benches, tennis courts, basketball courts, playground equipment, picnic table, parking lot	Fair	None planned	LWCF, CDBG	RA1	Permanent	Yes	5.8
<b>Griswold Park</b>	City of Revere	Parks & Recreation	Recreation and conservation: baseball field, softball field, small fenced in tot lot, bleachers, concession stand adjacent to conservation area	Good	Used for active recreation, potential for additional passive recreation such as walking paths	City	RB	Permanent	Yes	12.7
<b>Harmon Park</b>	City of Revere	Parks & Recreation	Recreation: basketball hoops, swings, located adjacent to Northern Strand Community Trail	Fair	None planned	CDBG, PARC	RA1	Permanent	Yes	0.5
<b>Liberty Park</b>	City of Revere	Parks & Recreation	Recreation: tot lot with playground equipment, benches	Good	None planned	Federal grant	RA1	Permanent	Yes	0.5
<b>Louis Pasteur Park</b>	City of Revere	Parks & Recreation	Recreation: playground equipment, basketball court, picnic table	Good	None planned	CDBG, Common Backyard	RB	Permanent	Yes	0.7

Name	Owner	Manager	Current Use	Condition	Recreation Potential	Funds Used	Zoning District	Level of Protection	Public Access	Acres
<b>Neponset Street Park</b>	City of Revere	Parks & Recreation	Recreation: tot lot with playground equipment and benches	Good	None planned	CDBG	RB	Permanent	Yes	0.2
<b>Oak Island/ DeStoop Park</b>	City of Revere	Parks & Recreation	Recreation: fenced in tot lot with playground equipment and benches, softball field, turf soccer field, basketball court	Excellent	None planned	CDBG, UPARR, PARC	RB	Permanent	Yes	2.5
<b>Paws &amp; Play Dog Park</b>	City of Revere	Parks & Recreation	Recreation: fenced in dog park	Excellent	None planned	City	RB	Permanent	Yes	2.6
<b>Pearl Avenue/ Orchard Street Park</b>	City of Revere	Parks & Recreation	Recreation: tot lot with playground equipment and benches	Fair	None planned	Federal grant	GB	Permanent	Yes	0.4
<b>Police Station Basketball Court</b>	City of Revere	Parks & Recreation	Recreation: basketball courts, designated parking	Excellent	None planned	City	RB	Permanent	Yes	0.5
<b>Rose Street Federal Family Development Tot Lot</b>	Revere Housing Authority	Parks & Recreation	Recreation: small tot lot with benches and playground equipment at center of housing development	Good	None planned	Housing Authority	RB	Permanent	Yes	0.2
<b>Sonny Meyers Park</b>	City of Revere	Parks & Recreation	Recreation: tot lot with playground equipment, picnic tables, benches, parking available at Historical Society	Excellent	None planned	CDBG	RB	Permanent	Yes	0.3
<b>State Veteran's Development Basketball Court</b>	Revere Housing Authority	Revere Housing Authority	Recreation: basketball hoops at center of housing development	Good	None planned	Housing Authority	RB	Limited	Yes	0.3
<b>City-Owned School-Based Recreation</b>										

Name	Owner	Manager	Current Use	Condition	Recreation Potential	Funds Used	Zoning District	Level of Protection	Public Access	Acres
<b>Beachmont School/Frederick Park/Repucci Park</b>	City of Revere	Parks & Recreation	Recreation: soccer field, basketball courts, hockey court, tot lot, baseball/softball fields	Good	None planned	City, LWCF, UPARR, Child Safety grant	RB	Permanent	Yes	13.5
<b>Garfield School/Curtis Park</b>	City of Revere	Parks & Recreation	Recreation: baseball field with bleachers, bicycle parking, basketball court, tot lot	Good	None planned	CDBG	RB	Permanent	Yes	2.8
<b>Hill School Playground</b>	City of Revere	Parks & Recreation	Recreation: fenced in tot lot adjacent to Della Russo Stadium	Excellent	None planned	City	RB	Permanent	Yes	0.1
<b>Lincoln School Park</b>	City of Revere	Parks & Recreation	Recreation: basketball court, playground	Excellent	None planned	City	RB	Permanent	Yes	2.0
<b>McKinley School Playground</b>	City of Revere	Parks & Recreation	Recreation: basketball court	Fair	None planned	City	RB	Permanent	Yes	0.4
<b>Paul Revere School/Consiglia Della Russo Park</b>	City of Revere	Parks & Recreation	Recreation: small tot lot, fenced in blacktop and playground, little league baseball field	Good	None planned	DCS/LWCF	RB	Permanent	Yes	1.8
<b>Revere High School Veteran's Field/Ambrose Park/ Erricola Park</b>	City of Revere	Parks & Recreation	Recreation: artificial turf football field, baseball field, softball field, playground	Good	None planned	UPARR, LWCF, CDBG	RB	Permanent	Yes	11.1
<b>Whelan School/Ciarlone Tot Lot/DiSalvo Park</b>	City of Revere	Parks & Recreation	Recreation: fenced in playground, fenced in tot lot, softball fields, basketball court	Excellent	None planned	LWCF, CDBG	RB	Permanent	Yes	3.8
<b>Other City-Owned Open Space</b>										

Name	Owner	Manager	Current Use	Condition	Recreation Potential	Funds Used	Zoning District	Level of Protection	Public Access	Acres
<b>American Legion Park</b>	City of Revere	City of Revere	Recreation and historical: small public plaza with pathways and statues	Good	None planned	City	CB	Limited	Yes	0.7
<b>Beachmont Community Park</b>	City of Revere	Parks & Recreation	Recreation: grassy triangle with benches and landscaped path	Excellent	None planned	City	RB	Permanent	Yes	0.1
<b>Belle Isle Marsh</b>	City of Revere	City of Revere	Conservation: marshland with limited access	Excellent	None planned	Unknown	RB	Limited	Yes	8.39
<b>Destasio/Oxford Street Park</b>	City of Revere	Parks & Recreation	Recreation: grassy strip of land between two roads with path	Fair	None planned	City	RB	Permanent	Yes	0.5
<b>Dunn Road Conservation Land</b>	City of Revere	Conservation Commission	Conservation: vacant land with no facilities	N/A	None	Tax title	RB	Permanent	Yes	0.1
<b>Jacobs Park</b>	City of Revere	Parks & Recreation	Conservation: parcel of land with no facilities	N/A	Potential for passive recreation such as walking paths	Gift to City	RB	Permanent	Yes	5.9
<b>Leverett Avenue/Edward Leach Park</b>	City of Revere	Parks & Recreation	Recreation and flood control: landscaped area with walking paths	Excellent	None planned	FEMA	RB	Permanent	Yes	0.6
<b>North Revere Conservation Area</b>	City of Revere	Conservation Commission	Conservation: no facilities or signs, trails from previous use as a riding stable	N/A	Potential for passive recreation such as walking paths	Urban Self-Help	RA1	Permanent	Yes	21.3
<b>North Shore Road Conservation Land</b>	City of Revere	Conservation Commission	Conservation: vacant land with no facilities	N/A	None	Tax title	GB	Permanent	Yes	0.1

Name	Owner	Manager	Current Use	Condition	Recreation Potential	Funds Used	Zoning District	Level of Protection	Public Access	Acres
<b>Northern Strand Community Trail</b>	City of Revere	City of Revere	Recreation: regional shared use path for walking and biking	Excellent	None planned	Recreational Trails	TED, HB, RB, RA1, NB	Permanent	Yes	--
<b>Oak Island Marsh</b>	City of Revere	City of Revere	Conservation: area of marshland	N/A	None	Unknown	GB	Permanent	Yes	17.6
<b>Pines River</b>	City of Revere	City of Revere	Recreation: grassy area adjacent to the river	N/A	None planned	Unknown	GB	Limited	Yes	3.7
<b>Pines Road Boat Launch</b>	City of Revere	City of Revere	Recreation: small boat launch	Fair	None planned	City	RA	Permanent	Yes	0.1
<b>Recreation Center</b>	City of Revere	Parks & Recreation	Recreation: building houses the Recreation Department offices and is used for programs, has two full indoor basketball courts	Good	None planned	City	RB	None	Yes	0.2
<b>Revere Society for Cultural and Historic Preservation</b>	City of Revere	Revere Society for Cultural and Historic Preservation	Historical: property is a museum that is open to the public on Saturday afternoons	Fair	None	CDBG, other grants and donations	RB	Permanent	Yes	0.5
<b>Rumney Marsh</b>	City of Revere	City of Revere	Conservation: large marshland area	N/A	None planned	Unknown	TED	Limited	Yes	116.2
<b>Rumney Marsh Burial Ground</b>	City of Revere	Parks & Recreation	Historical: site is a historic burial ground	Good	None	City	RB	Permanent	Yes	0.6
<b>State-Owned Open Space</b>										
<b>Belle Isle Marsh</b>	DCR	DCR	Conservation: marshland with limited access	Excellent	None planned	State	RB	Permanent	Yes	17.8

Name	Owner	Manager	Current Use	Condition	Recreation Potential	Funds Used	Zoning District	Level of Protection	Public Access	Acres
<b>Centennial Park</b>	DCR	DCR	Recreation: small sitting area	Excellent	None planned	State	RB	Permanent	Yes	0.2
<b>Cronin Rink</b>	DCR	Private co.	Recreation: indoor skating rink	Excellent	None planned	State	RB	Permanent	Yes (fee)	5.5
<b>Leverett Avenue Picnic Pavilion</b>	DCR	DCR	Recreation: small picnic pavilion across street from Rocky Beach	Good	None planned	FEMA	RB	Permanent	Yes	0.6
<b>Mill Creek Canoe Launch</b>	DCR	DCR	Recreation: canoe launch, end of parking lot for Cronin Rink	Excellent	None planned	State	RB	Permanent	Yes	0.0
<b>Revere Beach Parkway</b>	DCR	DCR	Recreation: recreational parkway	Good	None	State	N/A	Permanent	Yes	39.5
<b>Revere Beach Reservation</b>	DCR	DCR	Recreation: public beach with bathrooms, pavilions, bandstand, green space	Good	None planned	State	RB	Permanent	Yes	28.0
<b>Rocky Beach</b>	DCR	DCR	Recreation: small beach rocky beach	Fair	None planned	State	RB	Permanent	Yes	0.8
<b>Rumney Marsh</b>	DCR	DCR	Conservation: large marshland area	N/A	None planned	Unknown	TED	Permanent	Yes	140.6
<b>Sea Plane Basin</b>	DCR	DCR	Conservation: area of marshland and open water	N/A	None planned	Unknown	TED	Permanent	Yes	114.7
<b>Short Beach</b>	DCR	DCR	Recreation: small beach at Winthrop border	Fair	None planned	State	RB	Permanent	Yes	0.9



Name	Owner	Manager	Current Use	Condition	Recreation Potential	Funds Used	Zoning District	Level of Protection	Public Access	Acres
<b>Sullivan Field</b>	DCR	DCR	Recreation: softball field	Poor	None planned	State	RB	Permanent	Yes	1.0
<b>Privately-Owned Open Space</b>										
<b>McMackin Field</b>	Revere Little League	Revere Little League	Recreation: private Little League baseball field, abandoned	Poor	None planned	Private	GB	None	Members only	3.0
<b>North Shore Road Boat Launch</b>	Private	Private	Recreation: boat ramp created as part of a Chapter 91 license	Good	None planned	Private	HB	Limited	Yes	0.0
<b>Overlook Ridge Playground</b>	Overlook Ridge	Overlook Ridge	Recreation: large accessible playground with two-story play structure, tennis courts	Excellent	None planned	Private	OROD C	None	Overlook Ridge residents	0.4
<b>Overlook Ridge Stormwater Area</b>	Overlook Ridge	Overlook Ridge	Recreation and flood control: constructed wetland with pond, stone benches, stone dust path	Excellent	None planned	Private	OROD A	Permanent	Yes	6.9
<b>Pines Beach</b>	Point of Pines Assoc.	Point of Pines Assoc.	Recreation: private beach	Good	None planned	Unknown	RA	None	Point of Pines residents	15.6
<b>Slades Mill Canoe Launch</b>	Private	Private	Recreation: boat ramp created as part of a Chapter 91 license	Poor	None planned	Private	TED	Limited	Yes	0.4

## LEVELS OF PROTECTION

For planning purposes, it is important to be aware of the degree of protection for each parcel. Knowing the level of protection (or lack thereof) will point out how easily some properties assumed to be open space can be developed. This knowledge can help in identifying those open space and recreation areas that require additional efforts in order to ensure their long-term preservation and protection. The following designations regarding level of protection are used.

### Permanently Protected

The majority of open space in Revere is permanently protected. A site is considered to be permanently protected if it is recorded in a deed or other official document. Such land is to be considered protected in perpetuity if it is deeded to and managed by the local Conservation Commission or Parks & Recreation Department and thereby subject to Article 97, if it is subject to a conservation restriction or easement in perpetuity, if it is owned by one of the state's conservation agencies and thereby subject to Article 97, if it is owned by a nonprofit land trust, or if the municipality received federal or state assistance for the purchase or improvement of the property. Private land is considered protected if it has a deed restriction in perpetuity or a conservation restriction has been placed on it.

Article 97 of the Massachusetts Constitution protects publicly-owned lands used for conservation or recreation purposes. In order for a property to be sold, transferred, or converted to a different use, Article 97 requires a 2/3 vote of City Council in support of the disposition, a 2/3 vote of the Massachusetts Legislature in support of the disposition, demonstration of compliance with applicable funding sources, and the municipality must file an Environmental Notification Form (ENF) with the Massachusetts Environmental Policy Act (MEPA). Given the extensive nature of this process and the rarity with which the disposition process occurs, these public recreation and conservation lands are assumed to be permanently protected.

### Limited

Sites in this inventory have limited protection if they are legally protected for less than perpetuity (i.e. short term conservation restriction) or temporarily protected through an existing functional use. These lands could be developed for other uses when their protection expires or when their functional use is no longer necessary. In general, this includes all land owned by other municipal departments or commissions, including lands managed by the City for non-recreational purposes.

### No Protection

This category includes land that is totally unprotected by any legal or functional means. This land is usually privately owned and could be sold without restriction at any time for another use. Only a small percentage of open space in Revere has no protection.

## CITY-OWNED OPEN SPACE

The City of Revere maintains a variety of parks and open spaces totaling more than 200 acres, about half of which is protected in perpetuity. There are a number of active recreation facilities distributed throughout the city, including small tot lots and playgrounds serving the various neighborhoods, as well as larger, city-wide facilities such as the newly updated Della Russo Stadium. The City also owns a number of school-based recreation facilities as each school has some recreation appropriate to the age group that it serves. With limited exceptions, the Parks and Recreation Department manages all active recreation facilities (school-based or not) in the city.

While the active recreation facilities are many, most acres of open space owned by the City are conservation lands, some of which are used for passive recreation. These include the extensive Rumney Marsh, as well as smaller areas like Oak Island Marsh, an inaccessible wetland, and Jacobs Park, an undeveloped area that residents use for passive recreation. The City also owns and manages other land used for cultural and recreational purposes, including historic properties and the Recreation Center.

The Conservation Commission manages three properties in the city, all of which are permanently protected. The largest of these is the North Revere Conservation Area, a property that has been the subject of legal action in the past due to an illegal sale, but has been restored to the care and control of the Conservation Commission. Local residents use the site primarily for walking dogs. While the abutters would like to see the property remain undeveloped for passive recreation, the Commission feels that increasing the usage of the site might cut down on the illegal dumping that occurs there. The Dunn Road property used to be completely wet and is an unbuildable parcel and the North Shore Road property experiences some flooding but is not otherwise a wetland.

## STATE-OWNED OPEN SPACE

The Commonwealth of Massachusetts is a major landowner in Revere, owning more than half of the open space in Revere. The Department of Conservation and Recreation (DCR) owns and manages Revere Beach Reservation, the Cronin Rink, a canoe launch and other lands along Revere Beach Parkway, a large portion of Rumney Marsh and Belle Isle Marsh, and more. While the City once owned many acres of Rumney and Belle Isle Marshes, land in these two areas is in the process of being transferred to DCR. All of State-owned land is considered protected in perpetuity.

Sullivan Field is a small park with a baseball field located on Revere Street and adjacent to the Revere Beach Reservation. It can be accessed by a small wooden footbridge crossing the Eastern County Ditch. While currently an underutilized softball field, if upgraded, it holds great potential due to its accessible location.

Cronin Rink is owned by DCR and is managed by a private business, Facility Management Corporation. The facility underwent a \$10 million reconstruction of the rink and associated site renovations to improve waterfront access to the northern banks of Mill Creek and to create new linkages to neighboring recreational facilities. As part of the renovations, a new walkway was developed along the entire southern edge of the parcel. The walkway begins

at Broadway and runs easterly along the water's edge to the Revere Beach Parkway sidewalk that links the Cronin Rink site to the Slade's Mill site. DCR has installed benches as well as a new canoe launch at the western end of the parcel near Broadway. The rink has public skating sessions daily except for Saturdays and offers skating lessons. It is used by the Everett/Revere Youth Hockey Association.

## PRIVATELY-OWNED OPEN SPACE

Private organizations own approximately 25 acres of recreational land in the city. This includes two small boat launches on private property where the public has been granted access under Chapter 91 licenses. It also includes areas that are for residents and inaccessible to the public, such as the Pines Beach and Overlook Ridge Playground. McMackin Field is an abandoned Little League baseball field that provides an opportunity for site improvements or a new recreational use.

There are no Chapter 61 parcels in Revere.

Massachusetts General Law Chapter 91 is the legislation known as the Public Waterfront Act. The purpose of these regulations is to:

- Ensure tidelands are utilized for water-dependent uses or otherwise serve a proper public purpose
- Protect public health, safety & general welfare
- Revitalize urban waterfront properties
- Promote public use and enjoyment of the water

The following activities require a Chapter 91 license:

- Construction, maintenance, reconstruction of unauthorized fill or structures
- Existing or proposed use
- Existing or proposed structure or fill
- Change in Use or Structural Alteration
- Permit for dredge, beach nourishment and lowering of Great Pond water level

Chapter 91 licenses are a good way to ensure public access to tidal areas and to obtain public open space amenities. Figure 35 lists the Chapter 91 licenses in Revere that involve public access.

Figure 35: Chapter 91 Licenses

Licensee	License #	Location	Public Access and Amenities
Robert Brooker	#9638	Slades Mill, Mill River	<ul style="list-style-type: none"> <li>• Ten-foot wide paved multi-use pathway</li> <li>• Canoe launch with one parking space</li> <li>• Interpretive signage</li> <li>• 600 square feet of museum space</li> </ul>
DCR	#12338	Short Beach	<ul style="list-style-type: none"> <li>• Three pedestrian ramps</li> <li>• Boat ramp</li> <li>• Wooden boardwalk across saltmarsh</li> </ul>
DCR	#11401	Cronin Rink	<ul style="list-style-type: none"> <li>• Ice skating facility with associated parking</li> <li>• Perimeter walking path with seating facilities</li> <li>• Canoe launch with an information kiosk</li> </ul>
North Shore Boat Works	#2053	Pines River	<ul style="list-style-type: none"> <li>• Public access from sunrise to sunset</li> <li>• Walkway and timber boardwalk with fencing, planters, and benches</li> <li>• No interfere with boat hauling or launching</li> </ul>
Arthur and Sarah Nigro	#605	Pines River/ Behind Dunkin Donuts	<ul style="list-style-type: none"> <li>• Boat launching ramp</li> <li>• Parking for limited number of cars</li> </ul>
Nigro Family Trust	#9224	Pines River/ Mt. Vernon Restaurant	<ul style="list-style-type: none"> <li>• Public use of restrooms</li> <li>• Eight-foot wide gravel pathway</li> <li>• Ten-foot wide publicly accessible deck</li> <li>• Landscaping, benches, and picnic area</li> <li>• Bicycle racks</li> <li>• Public boat ramp</li> <li>• Interpretive signage about the Pines River;</li> <li>• Two spaces for parking boat trailers</li> <li>• Public passage on foot from dawn to dusk</li> </ul>

Source: Massachusetts Department of Environmental Protection

## SECTION 6: COMMUNITY VISION

### DESCRIPTION OF PROCESS

The community vision for this Open Space and Recreation Plan update and associated goals, objectives, and action steps were developed after reviewing previous plans and studies, meetings with City staff, and after incorporation of comments received through the online survey, at focus groups, through the public art activity, and at the community forum.

Open space and recreation planning in Revere is conducted in a cooperative effort between a number of City departments, including the Parks & Recreation Department, Department of Planning and Community Development, Healthy Community Initiatives Department, Department of Public Works, and Department of Engineering. Further, the City has many partnerships with outside organizations, including Mass General Hospital and local nonprofits such as the Neighborhood Developers, Revere Beach Partnership, Revere Society for Cultural & Historic Preservation, and Revere Beautification Committee.

During this OSRP update process, City staff representing the aforementioned departments met regularly with Metropolitan Area Planning Council (MAPC) staff to review and contribute to elements of the plan, prioritize recommendations, and assist with community engagement. In order to engage the larger Revere community, MAPC and the City of Revere developed an online survey (in both English and Spanish versions) to help the City identify opportunities for improvements and additions to its open space and recreation resources. The survey, which was completed by over 400 Revere residents, was advertised on the City’s website and social media accounts, in the local newspaper, and through the local nonprofits with direct ties to the community. To get the word out about the survey, MAPC staff tabled at the Fall Festival on Broadway, a community celebration with activities for all ages meant to highlight the city’s cultural and economic renaissance.

To learn more about the needs of specific stakeholder groups, MAPC and the City held a series of five focus group meetings. The focus groups were held with the following groups of individuals: (1) school and public health nurses, (2) seniors, (3) members of the disability community and advocates, (4) Shirley Avenue residents and other stakeholders, and (5) representatives from arts, culture, and beautification committees.

By working with MAPC’s Artist-in-Residence and Arts & Culture Planner, the City was able to facilitate creative engagement as a part of this planning process. This was done through the development of a Vision Tree, a community-engaged public art initiative to encourage reflective thinking about what people want to see in their public open spaces. A leaf template was offered to the community in the local newspaper, in community centers, and in schools, and residents were asked to fill the leaf design with a depiction of their “perfect day in the park.” The paper templates were collected, trimmed, and affixed to wooden leaves hanging from the branches of a tree structure designed and built by the Artist-in-Residence. The Vision Tree, which was revealed at the community forum, will continue live in Revere as a piece of public art.

MAPC and the City of Revere held a community forum in April 2018 to give residents the opportunity to see the findings from the planning and community engagement process,

inform the OSRP recommendations, and weigh in generally about how to improve and promote Revere’s open space and recreation offerings. During the open house portion of the evening, attendees could prioritize, comment on, and suggest changes to the plan’s recommendations, as well as comment on the results of the online survey. As it relates to the public health element of the OSRP, attendees could learn about health behaviors and outcomes in Revere and participate in mapping exercises to identify what about Revere keeps people healthy or threatens resident health, in addition to prioritizing locations for amenities that promote good health outcomes, like spaces for walkers and bikers, trees, and growing food. In terms of the arts & culture element, residents could continue to decorate leaves for the Vision Tree, as well as participate in an activity to select what kinds of public art (such as sculptures, murals, and creative park furniture) and festive activities (such as parades, food festivals, and sports events) they would like to see in Revere’s open spaces and where they should be located.

## STATEMENT OF OPEN SPACE AND RECREATION GOALS

The City of Revere is committed to ensuring that current and future residents of the city have ample access to open space and opportunities for recreation despite financial constraints, dense development, and changing demographics. The City will continue to take steps to improve and enhance its existing parks and to add facilities to meet specific needs in a fiscally responsible manner. Improving recreational opportunities to ensure the health of its citizens will be a guiding principle. As an ethnically diverse community, Revere will continue to embrace this diversity and consider the needs of all of its citizens.

The City of Revere has developed five goals upon which the 2018 Open Space and Recreation Plan update is based:

- **Goal 1: Provide recreational opportunities for residents of all ages and abilities.**
- **Goal 2: Protect and preserve Revere’s natural resources.**
- **Goal 3: Develop facilities and programs that promote fitness and health.**
- **Goal 4: Improve stewardship of the parks.**
- **Goal 5: Develop partnerships and engage in regional collaboration to maximize limited resources and develop regional open spaces.**

## SECTION 7: ANALYSIS OF NEEDS

### SUMMARY OF RESOURCE PROTECTION NEEDS

#### Wetland Protection

Revere is home to both Rumney and Belle Isle Marshes, designated together as an Area of Critical Environmental Concern. Revere’s Conservation Commission is involved in the transfer of City-owned wetlands in the two marsh systems to the Department of Conservation and Recreation. This is a part of a land swap agreed upon by the City and DCR to enable development on the waterfront and protect particularly sensitive lands. The land swap should be nearing completion in the next year or two. Improving appropriate public access to the Rumney Marsh and Belle Isle Marsh ACEC is a priority of the City. Revere should consider developing a management plan for the Rumney Marshes ACEC in partnership with Saugus, Lynn, and DCR.

Illegal dumping and residential encroachments on the marshes have posed continued problems, and are one of the Conservation Commission’s primary areas of enforcement. According to the Commission’s page on the City’s website: “The mission of the Revere Conservation Commission is to protect the wetlands of the city by controlling the activities deemed to have a significant effect upon wetland values, including but not limited to the following: public or private water supply, groundwater, flood control, erosion control, storm damage prevention, water pollution, fisheries, shellfish, wildlife, recreation and aesthetics. The control of activities is achieved through permitting required under Chapter 131 Section 40 of Massachusetts General Laws (The Wetlands Protection Act) and Title 16 Environment Chapter 16.04 Wetlands Protection of the Revere City Ordinances.”<sup>72</sup>

#### Stormwater Management

Managing stormwater is an important component of complying with the Consent Decree, and is also vital for improving the quality of runoff to the marshes and the Pines River. The Conservation Commission should work with nonprofit environmental organizations like the Saugus River Watershed Council to identify and address sources of pollution impacting waterbodies. It should also explore integrating more low-impact development (LID) techniques. Types of LID such as bioswales and porous pavement implement small-scale hydrologic controls that mimic the natural hydrologic regime of watersheds and help with infiltration and evapotranspiration of stormwater.<sup>73</sup>

Part of stormwater management is restoring the function of ecosystems that naturally manage and filter stormwater. Through private mitigation funds, the City of Revere, Army Corps of Engineers, and the National Oceanic and Atmospheric Administration (NOAA) are restoring the salt marsh at the Oak Island Marsh. This project is nearing completion. Further, the City has been able to maintain once residential parcels as conservation open spaces for flood retention through the FEMA Buyout Program. With rising sea levels and higher intensity/frequency storms associated with global climate change, the City should work with

<sup>72</sup> “Conservation Commission,” City of Revere, [www.revere.org/departments/conservation-commission-copy](http://www.revere.org/departments/conservation-commission-copy)

<sup>73</sup> “Urban Runoff: Low Impact Development,” US EPA, [www.epa.gov/nps/urban-runoff-low-impact-development](http://www.epa.gov/nps/urban-runoff-low-impact-development)



homeowners of repeatedly storm-damaged homes who may be eligible for the Buyout Program to take advantage of this resource.

*Low-Impact Development Techniques*



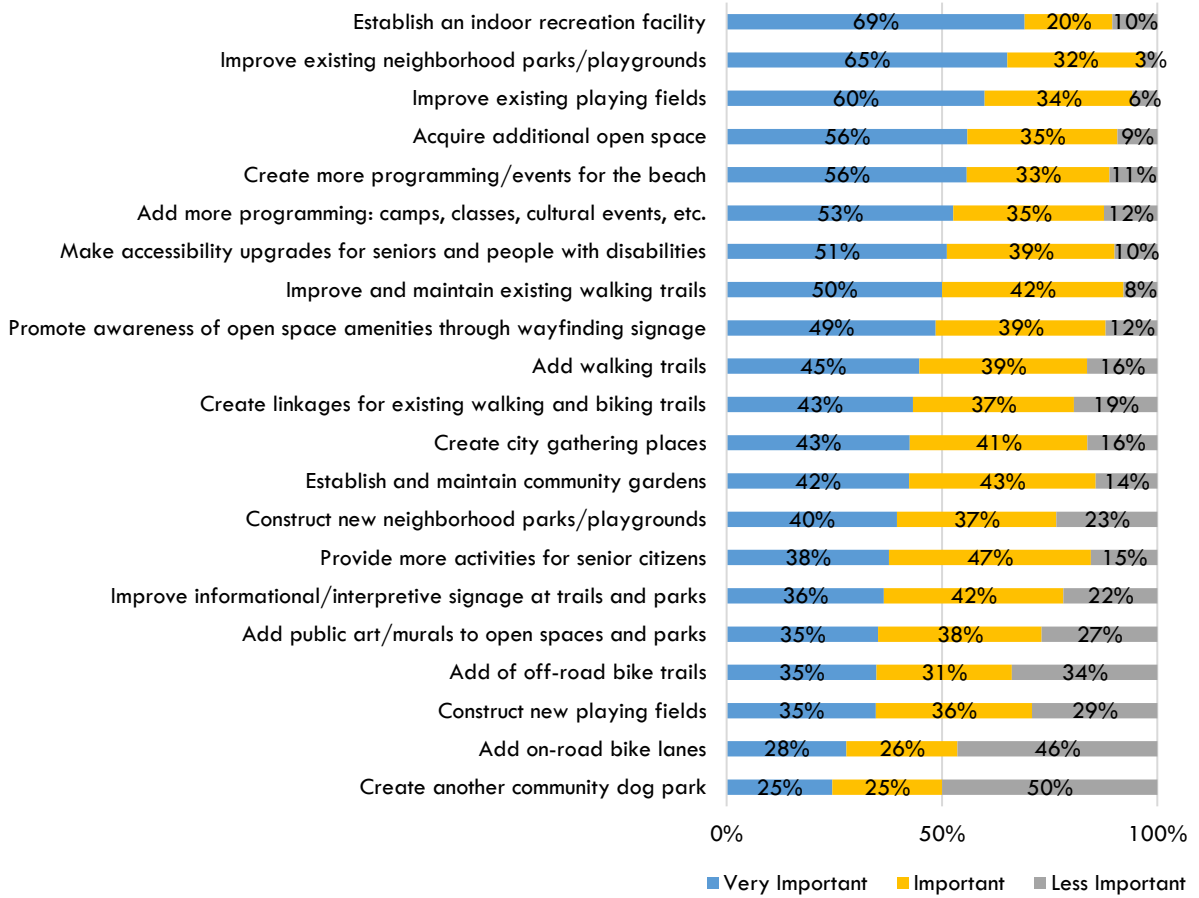
Source: Houston-Galveston Area Council

**SUMMARY OF COMMUNITY NEEDS**

The online community survey asked residents to rate the importance of a variety of open space and recreation priorities, the top priorities are listed below and the results are shown in Figure 36.

1. Establish an indoor recreation facility
2. Improve existing neighborhood parks/playgrounds
3. Improve existing playing fields
4. Create more programming/events for the beach
5. Acquire additional open space
6. Improve and maintain existing walking trails
7. Promote awareness of open space amenities through wayfinding signage
8. Add more programming: camps, classes, cultural events, etc.
9. Make accessibility upgrades for seniors and people with disabilities
10. Add walking trails
11. Create city gathering places
12. Establish and maintain community gardens
13. Create linkages for existing walking and biking trails
14. Construct new neighborhood parks/playgrounds
15. Add public art/murals to open spaces and parks

Figure 36: Support for Open Space and Recreation Priorities



**Recreation Facilities**

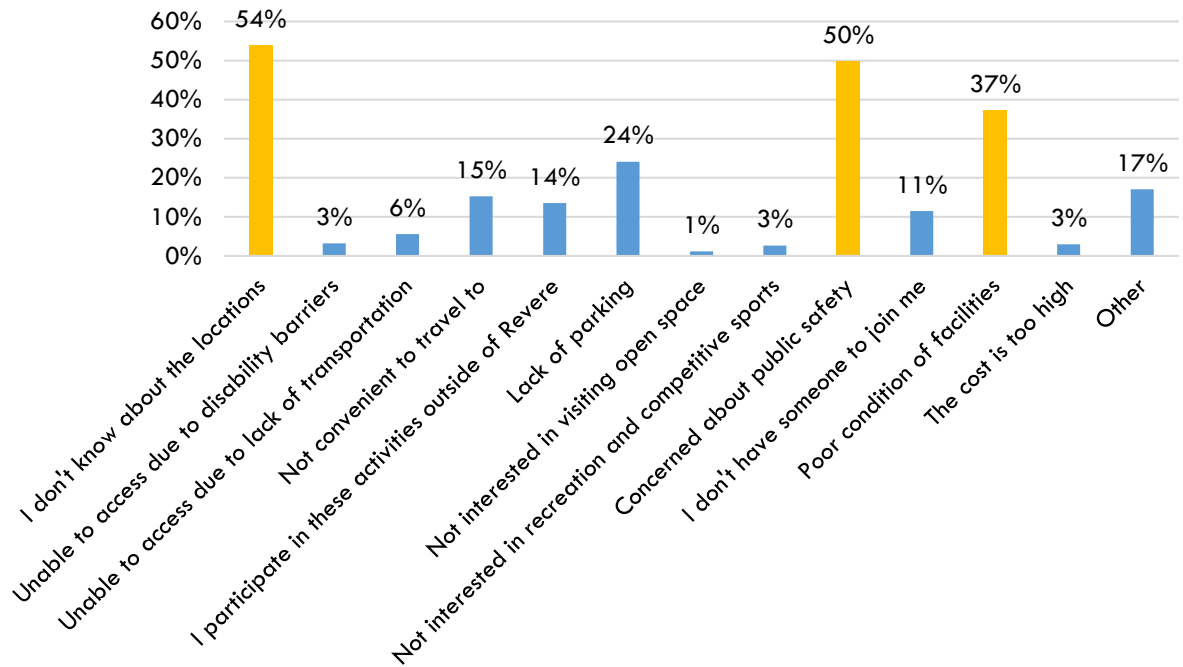
During this Open Space and Recreation Plan update process, it became very clear that an indoor recreation facility is the #1 priority of the community. About 70% of survey respondents rated establishing an indoor recreation facility as “very important,” while another 20% rated it as “important.” This is also a priority of the City as it seeks funding to enhance its open space and recreation inventory. Rebuilding Della Russo Stadium was the #1 priority of the 2010 OSRP update, and that process reached completion in 2015. The stadium is now a highly utilized and valued resource in Revere, with 71% of survey respondents saying they visit the site.

Another major community priority is the improvement of existing facilities. Two thirds (66%) of survey respondents rated improving existing neighborhood parks/playgrounds as very important while almost a third (31%) rated it as important. Further, almost 60% of respondents consider improving existing playfields to be very important and 35% consider it important. This contrasts with support for constructing new playing sites; about 43% see constructing new neighborhood parks/playgrounds as very important, and 36% see the construction of new playing fields as very important. Improvements to existing sites also aligns with a main priority of the City; the Action Plan in Section 9 identifies repairs,

renovations, and upgrades to Gibson, Curtis, Neponset Street, Fredericks, and Costa, Sonny Myers Parks, as well as two Housing Authority playgrounds.

Should new fields be constructed in Revere, it is important that they are multi-purpose fields with artificial turf. Single purpose fields are not as versatile since they cannot easily be changed to accommodate changes in the popularity of certain sports. Due to the shortage of fields in the city, grass fields cannot be given time to rest and recover. Artificial turf fields, while initially more costly, do not need recovery time.

Figure 37: Factors Preventing Residents from Using Open Spaces



When asked what prevents residents from using Revere’s open space and recreation amenities, 53% of respondents said they did not know about the locations. This may point to a lack of signage about parks or information about their offerings. The City should continue to populate its websites and social media pages with information about Revere’s recreational resources and consider opportunities for integrating additional wayfinding and signage around the parks.

After not knowing about locations, public safety concerns are the next biggest barrier to using open space amenities (identified by 52% of survey respondents). Public safety was also identified as a top community health concern by residents during the 2012 and 2015 MGH Community Health Needs Assessments (CHNA). There is a lot of loitering in public spaces in the city, including neighborhood parks, which can impact the perception of safety. This may point to the need for open space and recreation amenities aimed for users of different age groups. For example, focus group interviewees reported that teenagers who ride their bikes in the parks are seen as a threat to the safety of younger children and older adults, but there is nowhere else to do this activity in the city. Revere currently lacks

spaces for older youth, and there is a need for designated spaces and amenities for high school aged children, such as a skate park.

Also related to public safety in Revere is substance use. Opioid use is a growing and key concern when it comes to health of residents, cleanliness of parks and playgrounds, and perceptions of safety in public spaces. Sharps boxes for needle drop off are available at the City's Substance Use Disorder Initiatives (SUDI) Office, Police Station, Health Department, and pharmacies, though needles are often found in Revere's parks. SUDI has offered trainings for residents about how to use sharps boxes and is working to spread awareness to children about not touching needles. If needles are found, residents can call SUDI or the Police Department and they will pick up needles. The SUDI office also does regular drop-bys, needle sweeps when capacity allows, and yearly park clean-ups. There are calls for lighting and camera in every park, which while unable to eliminate all public safety issues like drug use, they can help deter undesirable behavior.

The poor condition of some facilities was identified as the next biggest barrier to open space use; 37% of survey respondents said this prevented them from accessing Revere's open space and recreation amenities. Multiple groups interviewed throughout this process noted that cleanliness remains a big issue in the open spaces across the city. Like the other barriers mentioned, this was top community health concern of the MGH CHNAs. There are also issues with people not using trash receptacles and not cleaning up after their dogs. Even if there are doggie bag dispensers, it is necessary to keep them stocked and it is often difficult to find staff to do this. While it is against City rules, people smoke in neighborhood parks because this rule is largely unenforced. The Neighborhood Developers have installed cigarette butlers on their properties and in the surrounding neighborhood Shirley that the community has adopted will empty on their own. Interviewees and focus groups attendees attributed issues around cleanliness to cultural norms, but also to a lack of funding for the staff time required to maintain additional trash barrels and enforce policies.

### Programming and Events

Revere Beach is a major asset for city residents, with most survey respondents visiting the beach either daily, weekly, or monthly. Continuing to utilize this resources for events and other programming is a priority for residents; 59% of survey respondents identified creating more programming/events for the beach as very important, with another 32% saying it is important. The City should work with DCR and Revere Beach Partnership to support more activities for the beach that engage residents and attract visitors. Residents also support adding more programming in general, such as camps, classes, and cultural events; 52% of survey respondents said this is very important and 36% said it is important.

The City should continue its efforts to sponsor cultural programming in parks and public spaces such as the Fall Festival, as well as support events sponsored by community organizations like the Shirley Avenue Cultural Fest. Establishing utility requirements for plazas and outdoor spaces can also help support arts and culture activities and events in the city. Electrical power, water supply, lighting, flexible seating, and a stage area with unobstructed views are examples of public realm improvements that support outdoor arts and cultural activities. The City of Revere is currently in the process of developing a Public Art Policy and it should include information about utility requirements.

The City has begun efforts to adorn underpasses and blighted areas with murals and other public art, and should continue more of this work. In order to spruce up public spaces, Revere has developed the Project Switchbox initiative where artists decorate utility boxes throughout the city. This project will launch in spring 2018 when local artists will be painting and revealing their Switchbox art. Attendees at the arts & culture focus group had additional suggestions for supporting the arts in Revere, including for the City to work with the developers of Suffolk Downs and other locations to integrate arts-related activities into site planning. Other ideas include adding lighting to parks so there is less of a barrier to having events at night, creating a gallery space where local artists can display their work, and constructing an amphitheater for musical and theater productions.

At the community forum, attendees could use sticky dots to select what kinds of public art and festive activities they would like to see in Revere's open space. In terms of public art, there was support for integrating creative park furniture, interactive art, sculptures, and interpretive signage. In terms of festive activities, attendees prioritized food festivals, followed by sports events, folk/cultural traditions, and carnivals/parades. Residents suggested ideas for programming like inviting local bands to perform at parks and open spaces in the evenings of warm months, as well as holding ethnic food festivals (either an international night or a circuit where different cuisines are offered on different nights).

### Active Transportation

Improving and adding to Revere's inventory of walking trails is a priority of Revere residents. In terms of improving and maintaining existing walking trails, 53% survey respondents said this is very important and 40% said it is important. About 47% of those who took the survey see adding walking trails as very important and 39% see it as important.

The City should continue to prioritize active transportation options like walking and biking through the Revere on the Move campaign, a community-led collaboration between the Healthy Community Initiatives Department and the MGH Revere CARES Coalition. In addition to renovating neighborhood playgrounds to increase opportunities for physical activity amongst children throughout the city, Revere of the Move launched Revere's first Urban Trail in the fall of 2011, creating a safe and frequently-used walking path in the city that makes it easy for residents to be active in their own neighborhood. Since 2011, eight walking routes have been designated, including along Revere Beach and through different city neighborhoods.

The dock-less bike share system, Ofo, is already popular in Revere despite being less than a year old. Many users are teenagers who are getting permission from parents to use these bikes and dedicated bike infrastructure could support this enthusiasm. While Revere CARES is working on a Complete Street Policy for the city—one that includes the needs of pedestrians, bicyclists, motorists, and transit riders of all ages and abilities—they have not yet done robust outreach to determine resident need.

When asked at the community forum to prioritize locations for more or better healthy assets in Revere, attendees suggested adding designated spaces for both walkers and bikers along Square Road and VFW Parkway. One attendee suggested that the City consider

adding a Tike Track for kids to safely bicycle around, as well as for children in wheelchairs to use.

## Accessibility

Outreach done by Revere CARES found that some residents who are proximate to open spaces, parks, and recreation programs report having limited access to these resources. Policies and programs should be put in place to increase access and make sure that Revere residents feel that the city's open spaces, parks, and recreation programs are safe and welcoming to all. Access for seniors and persons with disabilities is complicated by physical and mental limitations that require careful consideration. Making accessibility upgrades for these groups was identified as very important by 53% of survey respondents and as important for another 38% of respondents.

Further, the State's Open Space and Recreation Planner's Workbook states that all municipal property and programs must be accessible to people with disabilities. All parks and conservation areas owned by the municipality, as well as their programs, must be evaluated as part of the process of preparing an OSRP. A complete ADA Access Self-Evaluation and Transition Plan is contained in the appendix.

At the focus group with members of the disability community and advocates, attendees explained that there are a number of barriers preventing children with disabilities from using Revere's parks. These also differ based on the type of disability. In terms of physical barriers, many parks lack paved pathways that could accommodate a wheelchair and there is no play equipment children who cannot get out of their wheelchair. Attendees supported the idea of adding an accessible play structure to a park in Revere, such as a merry-go-round or see-saw that accommodates a wheelchair.

Most of the playgrounds and tot lots in Revere utilize a wood chip surface. While these are considered acceptable by the ADA, they are not ideal for a number of reasons. Proper maintenance in the form of leveling and smoothing is required to maintain the proper ground height at access transfer platforms. People with small children have also noted that toddlers and young children are prone to putting the wood chips in their mouths and that sharp objects and other foreign material can become trapped under the chips and pose a safety hazard. Most of the wood chip surfaces are completely surrounded by raised or sunken railroad ties which are a barrier to pushing a wheelchair onto the surface. While rubber mats provide an accessible alternative, they are much more costly to install and they break down after frequent use.

In terms of programming, the City hosts the Special Olympics, a program which has grown in recent years. The Young Athlete Program, a component of the Special Olympics, is a free sports and play program for kids age 2-7 with intellectual disabilities that focuses on fun activities important to mental and physical growth. Launched in fall 2016, this program is an early introduction to sports and the world of Special Olympics. In fall 2017, the City launched the Special Olympics Jr. Soccer Skills Program for kids age 5-15 of all skill levels. Parents are interested in seeing more sports programs for older children.

With the help of volunteers, the City also offers a play group at the Recreation Center on Monday nights for children on the autism spectrum where they can play in a nonjudgmental

environment. This volunteer-led group also hosts parties for holidays such as Valentine’s Day and Halloween. The Parks and Recreation Department will lend equipment for these events and they are funded primarily by donations. Since Parks and Recreation Department does not have the capacity to run these programs themselves, a heavy burden falls on the parents who volunteer.

According to the focus group conversation, typical parks can provide an overload for overload for children with disabilities. While there could be a benefit to have a play space just for children with disabilities to avoid overcrowding and overstimulation, there is also a benefit to integrating able-bodied children with special needs children to build understanding. A participant suggested designating cool-down spaces in playgrounds with clear signs asking parents and children to respect rules. Attendees also suggested allocating time before or after regular City programming that is just for sensory viewing. Parents are in discussion with the Mayor about offering a sensory class with music and art in the evening aimed at children with disabilities.

At the focus group with seniors, attendees described the accessibility and programmatic needs of older age groups in Revere. While the Senior Center Rossetti-Cowan offers many services and activities for this population, it is in need of accessibility upgrades, such as repaving the parking lot to prevent trip hazards. Attendees described the desire for an outdoor bocce court and other dedicated equipment for seniors like stationary bikes. Moving forward, the City is interested in building an outdoor bocce court and senior recreation facility near Revere Beach, such as Sullivan Park.

Revere Beach is one of the safest beaches in the area and does not have any undertow. Therefore, it is an excellent beach for the disabled to use. However, there is a need for improved beach access for seniors and persons with disabilities. The last OSRP update called for the addition of accessible beach mats, and one has been added by the Jack Satter House. Working with DCR, the City should identify if there are additional locations where such mats can be placed.

#### Shirley Avenue Neighborhood

Since the Shirley Avenue Neighborhood holds its own set of challenges and opportunities, MAPC and the City of Revere conducted a focus group with Shirley Avenue residents and other stakeholders to understand how they utilize open space and recreation resources in their neighborhood and city. A tot lot was added to Curtis Park at the Garfield School in 2016 which has become an important resource in the community. The Principal of the Garfield School, who attended the Shirley Avenue Focus Group, explained that it has been transformational from an adult perspective. What was once an eyesore and dangerous place has become an active playground used by 500 kids a day, though it can only handle so many children at a time.

Costa Park is the main neighborhood open space in the Shirley Avenue neighborhood. While it has benefited from updates in 2013, the facility gets incredibly crowded and there are issues with people leaving trash around. There are also concerns about marijuana smoke at the park, especially during warmer weather. Residents often do not feel empowered to enforce the rules of the park and therefore just leave, but community

organizations such as the Neighborhood Developers are encouraging them to report any such illegal behavior to the Park and Recreation Department and call 311.

According to focus group participants, cultural events are incredibly important to the quality of life in the Shirley Avenue neighborhood. The Neighborhood Developers uses the municipal lot on Shirley Avenue for events like the Shirley Avenue Cultural Fest, as well as pop-up placemaking activities. Additional murals were identified as a purposeful way that culture and history can be integrated into the design and programming of open spaces. Attendees of the focus group felt that showing and representing the various cultures of Shirley Avenue and Revere will help immigrants feel more ownership to their community, and thus be more likely to get involved in civic matters.

Neighborhood residents are interested in seeing more opportunity for gardening in the community due to its aesthetic and therapeutic benefits. While there is the desire for residents to take on the role of personally improving their properties, community gardening should be expanded so gardening is more accessible to renters and others who may not have access to their own garden. Focus group attendees feel strongly that the City should bring the community garden program to the Shirley Avenue neighborhood.

Shirley Avenue residents have been discussing turning the dead-end on Walnut Avenue into a park for almost eight years. Working with the Neighborhood Developers, a plan has been developed and designed for repurposing the dead-end and the neighborhood is currently awaiting funding from the City. As a part of this OSRP update process, the City has identified the creation of a park on Walnut Avenue as one of its top priorities for implementation.

Fitzhenry Square, colloquially called Veterans Park, is currently used by residents as an unofficial dog park. However, there are issues with people not picking up after their dogs and it causing smells in the summer. City staff at the focus group after Shirley Avenue residents what they would be interested in seeing in this space should funding become available to improve it. Some attendees felt that this could be the site for a community garden, while others thought it should be made into an official dog park with fences, benches, and trash cans.

### Food Justice

Revere on the Move has worked on a variety of food-based activities, including indicating healthy options at corner stores through their Healthy Markets Initiatives and offering low calorie, low fat, and low sodium food options through the Healthy Dining Initiative. This is particularly important since no major supermarkets in Revere are accessible by bus. Current MBTA bus routes have limited service and do not connect residents to critical locations within the city.

The Healthy Community Initiatives Department has been increasingly focused on Revere's food economy. The Department taps local vendors for the Revere Farmer's Market from July to October, but has identified the need for an indoor space for a year-round market. In order to help local producers produce at a larger scale and in a safer way, the department has also been exploring the possibility of community kitchen space. The existing community and school gardens developed by the City have been successful and should be continued moving forward. However, there has not been a lot of focus on the community of



backyard gardeners in Revere. The City should explore policies and programs which could enhance food production and urban agriculture.

The focus group with Revere's public school nurses raised issues around school food and the free meal program. While free breakfast is universally offered, many children have transportation issues and do not get to school early enough to eat. Further, breakfast and lunch choices are not culturally competent and do not reflect student preferences, so there is a lot of food waste. The focus group felt that the food offered is of poor quality and a large portion is carbohydrates, which is especially true for breakfast. This is problematic as pediatric Type I and Type II Diabetes is very prevalent in the school system.

At the public forum, attendees were asked to prioritize locations for more or better healthy community assets like spaces to grow food and trees. Residents suggested adding to the tree canopy in the area just north of Wonderland Station, as well as around Suffolk Downs and Belle Isle Marsh. In terms of locations for community gardens (and potential larger urban agriculture operations) participants selected the Shirley Avenue neighborhood, at the Whelan School, and near the Rose Street Federal Family Development.

### Statewide Comprehensive Outdoor Recreation Plan

The Statewide Comprehensive Outdoor Recreation Plan (SCORP) is the Commonwealth's equivalent of a municipal open space plan. SCORP plans are developed by individual states in order to be eligible for federal Land and Water Conservation Fund (LWCF) grants. In 2017, the Executive Office of Energy and Environmental Affairs completed the Massachusetts SCORP to help guide the distribution of federal funding to state agencies and municipalities for the acquisition of open space, renovation of parks, and development of new parks. The SCORP is a planning document that discusses the available recreational resources in a state, as well as its needs, and identifies the gaps between the two. The goals and objectives of the 2017 SCORP, many of which are consistent with the City's goals and objectives, are to:

- Access for Underserved Populations Support the acquisition of land and development of new open spaces in areas that lack existing or useable open spaces, such as Environmental Justice neighborhoods
- Develop parks and open spaces that offer amenities that go above and beyond ADA requirements for people with disabilities
- Consider the needs of underserved demographic groups — senior citizens and teenagers — in park and open space designs
- Encourage establishment of programming endowments
- Support the Statewide Trails Initiative Support the acquisition of land and development of new open spaces that can provide a trail network
- Fill in the gaps of existing trail networks
- Ensure that any existing or new trails are fully accessible to people with disabilities
- Increase the Availability of Water-based Recreation Support the acquisition of land that will provide for water-based recreation
- Support the acquisition of land that will increase drinking water supply protection

- Develop water-based recreational facilities, including swimming areas, spray parks, boating facilities, fishing areas, etc.
- Support the Creation and Renovation of Neighborhood Parks Promote the acquisition and development of neighborhood parks where none currently exist
- Develop amenities supported by neighborhood parks, such as playgrounds, offleash dog parks, and community gardens
- Work with community development organizations to improve walking access to local park

## SUMMARY OF MANAGEMENT NEEDS

Championed by the Revere on the Move Program, the City has adopted a community-led model of park planning and construction. When funding becomes available and a park has been prioritized for updates, City staff work with the neighborhood resident groups (of which there are nine in the city) to determine what facilities and equipment they want to see at their area parks and schools. Residents also take part in the actual construction of facilities through community-builds which bring together resident volunteers and city staff to transform play spaces over a weekend. Through this process, Revere on the Move has renovated, or is in the process of renovating, seven playgrounds. By utilizing this model, the City has been able to decrease costs associated with site upgrades and empowered neighborhood residents to become invested in their parks.

Practically all City-owned open-space in Revere is managed by the Parks and Recreation Department. This department has a staff of four, including the director, an administrative assistant, and two summer supervisors. The Parks and Recreation Department maintains a full program of summer camps, sports teams and clinics, sea kayaking for youth and adults, and special events such as a the 4<sup>th</sup> of July BBQ and Halloween Fright Night. The Park and Recreation Department runs some programs from their offices at 150 Beach Street and also uses all of the city parks.

The Recreation Director is always seeking to expand and diversify the uses and client base of the programming at the Recreation Center. Classes currently include programming for toddlers and preschoolers with their families and after school programs for school-age children. There is a need for increased sports and health-related programming, but without a gymnasium, such planning and implementation is very difficult. Further, the extensive summer program takes place outside at the parks partially because the building has no air conditioning. The Recreation Center is in need of renovations and expansion to make it ADA-compliant, as well a new roof. A new indoor recreation facility would provide much needed space for the Park and Recreation Department to expand and coordinate the programming it offers.

Ongoing maintenance of City-owned open spaces is conducted by the Parks Division of the Department of Public Works. The Parks Division provides operations, programs, and ground maintenance and repair relative to parks and playgrounds, athletic fields, recreation, forestry, and all public building grounds including street islands and memorials. It is also tasked with the maintenance and management of the Revere's urban forest. While the Parks

Division works hard to service the open spaces in the city, it is faced with funding and staffing constraints.

The City should utilize major development projects in the pipeline, such as those at the former Suffolk Downs and Wonderland tracks, to provide funding and sites for open space opportunities. This was mentioned repeatedly throughout the focus groups held with residents and stakeholders in the city. While this is important for the City, it will take a coordinated effort on behalf of the Planning and Community Development to work with developers to plan for open space improvements and additions, as well as work with neighborhood organizations and residents to determine what they want to see in these open space amenities.

## SECTION 8: GOALS AND OBJECTIVES

These goals and objectives were developed after reviewing previous plans and studies, meeting with City staff, incorporating community survey results, holding focus group meetings, and incorporating feedback from the community forum.

Attendees at the April 2018 community forum participated in an activity where they could use sticky dots to vote for their preferred goals and objectives from the OSRP. The goal that emerged as the top priority from this exercise was Goal 1, followed by Goal 3. There was the most support for the objectives that help achieve Goal 1 and provide recreational opportunities Revere residents, particularly Objectives 1.1, 1.4, and 1.2. Other strategies that received more support than others were Objectives 2.2, 3.1, 4.3, and 5.1. These top priorities are starred (\*) in the list below.

### **Goal 1: Provide recreational opportunities for residents of all ages and abilities.\***

- Objective 1.1: Develop facilities for all age groups.\*
- Objective 1.2: Eliminate accessibility barriers at recreational facilities.\*
- Objective 1.3: Expand recreational programming to cover all ages and abilities.
- Objective 1.4: Maintain, enhance, and maximize the utility and quality of existing recreation areas.\*
- Objective 1.5: Create new recreational facilities that meet specific needs as opportunities and funding become available.
- Objective 1.6: Ensure that open space and recreation planning incorporates environmental justice and equity considerations.

### **Goal 2: Protect and preserve Revere’s natural resources.**

- Objective 2.1: Preserve and protect Revere’s wetlands, including Rumney and Belle Isle Marshes.
- Objective 2.2: Continue to implement stormwater management measures to improve the quality of runoff to the marshes and the Pines River.\*

### **Goal 3: Develop facilities and programs that promote fitness and health.\***

- Objective 3.1: Promote walking, biking, jogging and other forms of non-motorized recreation.\*
- Objective 3.2: Monitor factors that pose health risks from environmental contaminants.
- Objective 3.3: Increase access to affordable and healthy food.

### **Goal 4: Improve stewardship of the parks.**

- Objective 4.1: Educate residents about recreational resources available in the city.
- Objective 4.2: Create opportunities for residents to become involved in park planning and maintenance.
- Objective 4.3: Make parks more meaningful to residents through additional cultural programming, including music, dance, and food festivals.\*

**Goal 5: Develop partnerships and engage in regional collaboration to maximize limited resources and develop regional open spaces.**

- Objective 5:1: Work in partnership with developers to ensure that new development and redevelopment includes open space protection and the provision of recreational space.\*
- Objective 5:2: Coordinate with other Inner Core communities on regional open space initiatives, particularly the Northern Strand Community Trail.
- Objective 5:3: Continue to work with the Department of Conservation and Recreation to improve and expand their facilities.

## SECTION 9: SEVEN-YEAR ACTION PLAN

The Seven-Year Action Plan is the most important section in any Open Space and Recreation Plan. The following recommendations are meant to bridge the gap between the existing open space and recreation resources identified in Section 5, the goals and objectives listed in Section 8, and the needs and desires of Revere residents described in Section 7. The designation of a target year is meant as a guide only; it is more important to be flexible and take advantage of opportunities as they arise. Many items will need to occur over several years and in each case, a primary responsible party or parties is identified. Figure 38 is a map illustrating the many of the action plan recommendations.

The Seven-Year Action Plan was developed by first reviewing the action plan from the 2010 OSRP Update. All completed actions were removed from the list unless they are still ongoing. The remaining action items were reviewed by City staff representing various departments to determine if they were still desirable. New action items were added based on City priorities, input from the online community survey, and feedback from the focus group meetings. Finally, additional actions were added based on citizen input from the community meeting.

*Figure 38: Action Plan Map*

Figure 39 is a complete listing of all the action plan items in the format required by the Division of Conservation Services. The action items are grouped under the goal and objective with which they most directly contribute to. In many cases, an action item will contribute to more than one goal or objective but will be listed only once. Top priorities are identified (\*) in the Action Plan Matrix below.

The entries in the column “funding sources” are intended to give the reader some ideas on possible funding sources. Each grant program has its own eligibility requirements and it is generally difficult to determine if an action is fundable until the project is more clearly defined. The table also cannot take into account new grant programs or funding sources that might become available over the seven years of the plan. The following acronyms for funding sources listed in the table are:

- PARC: Parkland Acquisitions and Renovations for Communities Program
- LWCF: Land and Water Conservation Fund
- GC: Gateway Cities Initiative
- CDBG: Community Development Block Grant
- LAND: Local Acquisitions for Natural Diversity
- TE: Transportation Enhancements Program
- RTGP: Recreational Trails Grant Program
- MDI: Massachusetts Downtown Initiative
- MET: Massachusetts Environmental Trust General Grant
- DCR: Department of Conservation and Recreation

Figure 38: Action Plan Map

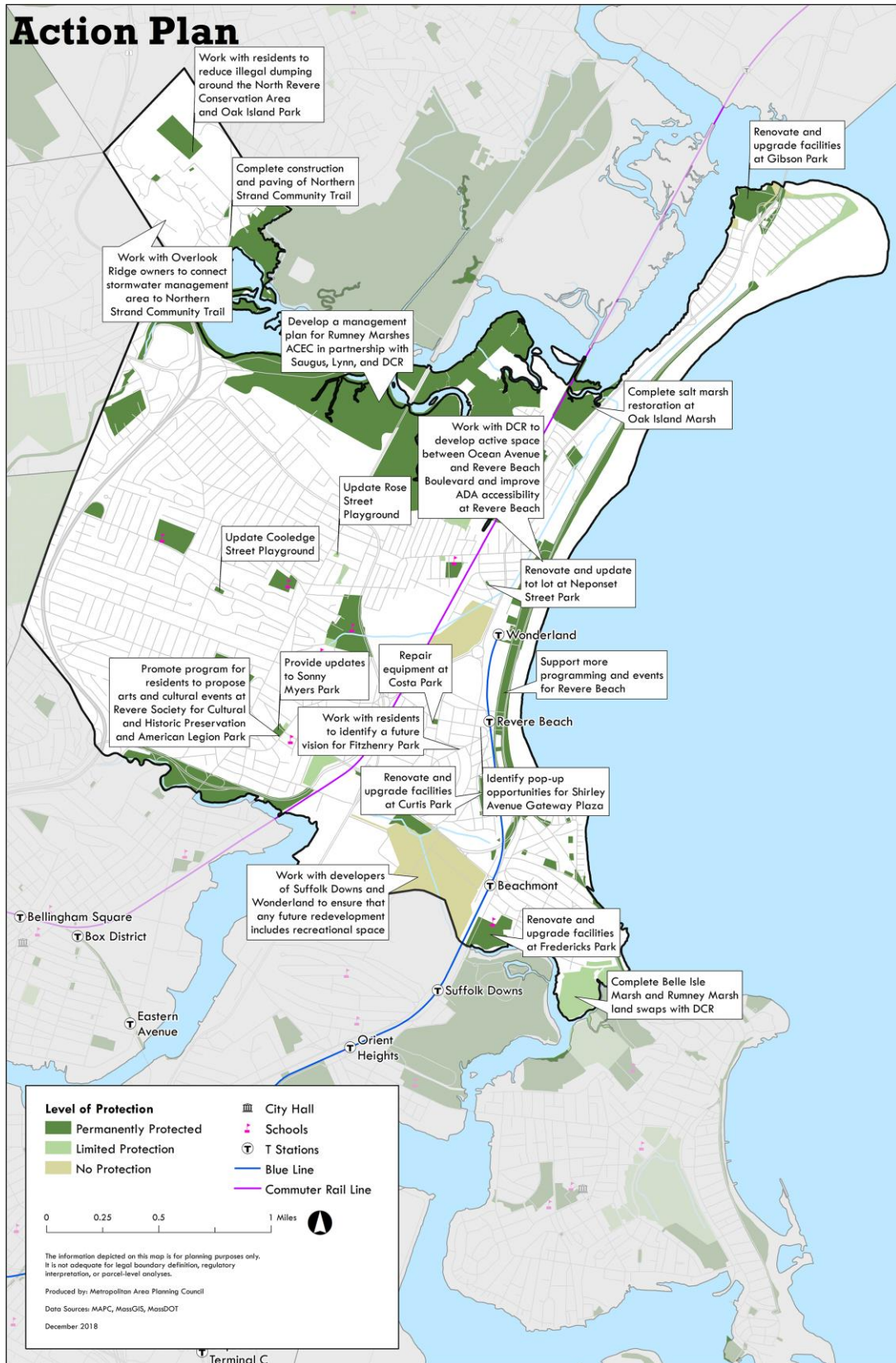


Figure 39: Action Plan Matrix

<b>Goal 1: Provide recreational opportunities for residents of all ages and abilities.*</b>			
<b>Action Item</b>	<b>Parties Responsible</b>	<b>Timeframe</b>	<b>Funding Sources</b>
<b>Objective 1.1: Develop facilities for all age groups.*</b>			
Work to establish and secure a location for an indoor recreation facility in Revere.	Parks & Rec, Community Development	Years 2-7	LWCF, PARC, CDBG, GC
Repurpose the end of Walnut Avenue as a community open space.	Parks & Rec, Community Development	Years 1-3	TDI
Build an outdoor bocce court and senior recreation facility near Revere Beach.	Parks & Rec, Healthy Community Initiatives	Years 2-4	DCR, PARC, LWCF
Work with DCR to activate recreation on DCR property between Ocean Avenue and Revere Beach Boulevard, such as for a skate park or spray park.	Parks & Rec, Community Development	Years 2-4	DCR
<b>Objective 1.2: Eliminate accessibility barriers at recreational facilities.*</b>			
Work with DCR to expand wheelchair access to Revere Beach including the provision of sand wheelchairs.	Commission on Disabilities, Community Development	Years 1-3	State
Evaluate the possibility of expanding shuttle access between the Senior Center and Revere Beach/other recreation destinations.	Elder Affairs	Years 2-4	City
Provide playground equipment for children in wheelchairs.	Parks & Rec, Community Development	Years 3-5	Child Safety funding
Consider creating “cool-down spaces” in playgrounds with clear signs asking parents and children to respect rules.	Parks & Rec	Years 3-5	City
Implement the recommendations detailed in the ADA Access Self-Evaluation and Transition Plan.	Parks & Rec, Community Development	Ongoing	City, Child Safety funding
<b>Objective 1.3: Expand recreational programming to cover all ages and abilities.</b>			
Continue to utilize recreation facilities like Revere Beach and neighborhood parks for free or low-cost exercise classes and partner with local wellness businesses.	Parks & Rec	Ongoing	Staff time
Make City events more accessible to kids with special needs by providing time before/after events for sensory viewing.	Commission on Disabilities, Parks & Rec	Ongoing	City



Promote program for residents to propose arts and cultural events at Revere Society for Cultural and Historic Preservation and American Legion Park; provide small grants to support activities.	Parks & Rec, Revere Society for Cultural and Historic Preservation, Revere Cultural Council	Years 2-4	Revere Cultural Council, CDBG
Make structural changes to the Revere Society for Cultural & Historic Preservation identified in the needs assessment.*	Parks & Rec, Revere Society for Cultural and Historic Preservation, Revere Cultural Council	Years 1-3	MA Cultural Council Capital Facilities Fund
<b>Objective 1.4: Maintain, enhance, and maximize the utility and quality of existing recreation areas.*</b>			
Renovate and upgrade facilities (including playground, ballfield, and walkways) at Gibson Park.	Parks & Rec	Years 1-3	PARC, CDBG
Renovate and upgrade facilities (including ballfield, basketball court, lighting, and scoreboard) at Curtis Park.	Parks & Rec	Years 1-3	Private funds
Renovate and update tot lot at Neponset Street Park.	Parks & Rec	Years 1-3	GC
Construct a fence around the tot lot at Liberty Park.	DPW	Year 1	City
Demolish aging play structure at Consiglia Della Russo Park/Paul Revere School.	Parks & Rec	Years 2-5	City
Renovate and upgrade facilities at Fredericks Park.	Parks & Rec	Years 2-5	PARC, GC, private funds
Repair equipment at Costa Park.	Parks & Rec	Years 2-3	PARC, GC
Provide updates to Sonny Myers Park.	Parks & Rec	Years 4-5	PARC, GC
Update Rose Street and Cooledge Street Playgrounds.	Parks & Rec, Housing Authority	Years 5-7	PARC
Use creative placemaking process to integrate arts and culture into the design of and engagement for open spaces.	Parks & Rec, Revere Cultural Council	Ongoing	Commonwealth Places, MDI
Establish utilities requirements for plazas and outdoor spaces to support arts and culture activities and events.	Community Development, Parks & Rec	Years 1-5	Staff time
<b>Objective 1.5: Create new recreational facilities that meet specific needs as opportunities and funding become available.</b>			
Identify additional opportunities for the creation of new ballfields.	Parks & Rec	Ongoing	City

Explore opportunities for establishing disc golf and/or an automated batting cage.	Parks & Rec, Healthy Community Initiatives	Ongoing	City
Work with residents to identify a future vision for Fitzhenry Park.	Community Development, Healthy Community Initiatives	Years 1-2	Staff time
<b>Objective 1.6: Ensure that open space and recreation planning incorporates environmental justice and equity considerations.</b>			
Continue multi-lingual public participation outreach efforts.	Community Development	Ongoing	Staff time
Distribute the OSRP to community organizations.	Community Development	Year 1	Staff time
Work with neighborhood groups in the Shirley Avenue neighborhood to plan for improvements at Costa Park.	Community Development, Parks & Rec	Years 5-7	Staff time
Work with Shirley Avenue residents and neighborhood groups to identify pop-up opportunities for the Gateway Plaza.	Community Development	Years 2-3	Commonwealth Places, MDI
Expand the community garden program to the Shirley Avenue neighborhood.	Healthy Community Initiatives	Years 3-6	LAND, CDBG
Provide both physical and programmatic connections between the Creative District and the Shirley Avenue neighborhood.	Community Development	Years 2-5	Commonwealth Places, MDI

<b>Goal 2: Protect and preserve Revere's natural resources.</b>			
<b>Action Item</b>	<b>Parties Responsible</b>	<b>Timeframe</b>	<b>Funding Sources</b>
<b>Objective 2.1: Preserve and protect Revere's wetlands, including Rumney and Belle Isle Marshes.</b>			
Develop a management plan for the Rumney Marshes ACEC in partnership with Saugus, Lynn, and DCR.	Community Development, Conservation Commission	Years 4-7	MET
Complete the Rumney Marsh and Belle Isle Marsh land swaps with DCR.	Community Development, Solicitor	Years 1-2	Staff time
Continue enforcement of the wetlands protection ordinance.	Conservation Commission	Ongoing	Staff time
<b>Objective 2.2: Continue to implement stormwater management measures to improve the quality of runoff to the marshes and the Pines River.*</b>			
Complete salt marsh restoration at the Oak Island Marsh.	ACOE, EOA, NOAA	Years 1-3	Private mitigation funds

Maintain conservation open spaces for flood retention through the FEMA Buyout Program.	Community Development	Ongoing	FEMA
Work with the Saugus River Watershed Council to identify and address sources of pollution impacting waterbodies.	Conservation Commission	Years 3-5	MET
Identify opportunities for integrating more low-impact development (LID) measures in Revere.	Community Development, Conservation Commission	Ongoing	Private funds

<b>Goal 3: Develop facilities and programs that promote fitness and health.*</b>			
<b>Action Item</b>	<b>Parties Responsible</b>	<b>Timeframe</b>	<b>Funding Sources</b>
<b>Objective 3.1: Promote walking, biking, jogging and other forms of non-motorized recreation.*</b>			
Complete construction (including paving) of the Northern Strand Community Trail.	Community Development	Years 1-2	TE, RTGP
Expand dedicated bike infrastructure for the current dock less bike share program.	Community Development, Healthy Community Initiatives	Years 1-2	City
Ensure that development and transportation projects are reviewed for their impact on pedestrians and bicyclists.	Community Development	Ongoing	Staff time
Identify opportunities to reduce traffic volumes and speeds in locations where there is potential for children to make walking trips or in proximity to public spaces and parks.	Community Development, DPW	Years 1-4	City
Commission artists to develop destination artworks along bicycle paths and routes to promote wayfinding and encourage use of bike and pedestrian trails.	Community Development, Revere Cultural Council, DPW	Years 2-5	Commonwealth Places, private funds
Promote the Revere Urban Trail system and encourage resident use.	Healthy Community Initiatives	Ongoing	Staff time
<b>Objective 3.2: Monitor factors that pose health risks from environmental contaminants.</b>			
Provide informational materials for new and existing residents who live in proximity to roadways with higher traffic volumes.	Healthy Community Initiatives	Years 2-3	Staff time
Review air quality in the vicinity of the schools to determine if mitigating actions (e.g. vegetative buffers) may be applicable.	Healthy Community Initiatives	Years 2-5	EPA grants

Preserve mature trees and strategically plant new trees to provide public health and environmental benefits.	DPW, Community Development, DCR	Ongoing	City, DCR
<b>Objective 3.3: Increase access to affordable and healthy foods.</b>			
Identify an indoor location for the farmer's market during winter months.	Community Development, Healthy Community Initiatives	Years 1-2	Staff time
Continue the community garden program.	Healthy Community Initiatives	Ongoing	LAND, CDBG
Inventory all community gardens in the City, public and privately owned.	Healthy Community Initiatives, Revere CARES	Years 1-2	Staff time,
Survey community interest in home and community gardening and urban agriculture.	Healthy Community Initiatives, Revere CARES	Years 2-4	Staff time
Assess suitability of municipally-owned parcels for food production.	Healthy Community Initiatives, Revere CARES	Years 2-4	Staff time
Partner with community groups in Revere to develop a strategy for expanding community gardens.	Healthy Community Initiatives, Revere CARES	Year 4-7	LAND, CDBG
Ensure gardens are accessible to residents of all abilities by continuing to integrate ADA accessible design principles and programming.	Community Development, Healthy Community Initiatives	Ongoing	City
Assess opportunities for shared use of commercial kitchens.	Community Development, Healthy Community Initiatives, Revere CARES	Years 2-4	Staff time

<b>Goal 4: Improve stewardship of the parks.</b>			
<b>Action Item</b>	<b>Parties Responsible</b>	<b>Timeframe</b>	<b>Funding Sources</b>
<b>Objective 4.1: Educate residents about recreational resources available in the city.</b>			
Use social media and the City and Revere Recreation websites to provide current information on parks and related improvements.	Parks & Rec	Ongoing	Staff time
Promote awareness of open space amenities through wayfinding and signage.	Parks & Rec, Community Development	Ongoing	Staff time
Educate Revere Recreation staff about recycling and waste diversion so they can pass knowledge down through youth programming.	Parks & Rec	Ongoing	Staff time

<b>Objective 4.2: Create opportunities for residents to become involved in park planning and maintenance.</b>			
Work with residents to reduce illegal dumping, particularly around the North Revere Conservation Area and Oak Island Park.	Conservation Commission	Years 4-7	City
Continue and increase participation for the Senior Citizen Park Maintenance Corps program.	DPW	Ongoing	CDBG
Encourage and support efforts of Friends and Watch groups who help oversee park conditions and report vandalism by utilizing and promoting 311.	DPW, Community Development	Ongoing	Staff time
Establish Friends of Costa Park to steward and oversee park programming, cleanliness, and maintenance.	DPW, Community Development	Years 1-2	Staff time
<b>Objective 4.3: Make parks and public spaces more meaningful to residents through additional cultural programming, including music, dance, and food festivals.*</b>			
Support more programming and events for Revere Beach.	Parks & Rec, Revere Beach Partnership	Ongoing	Staff time
Promote the Project Switchbox initiative where artists decorate utility boxes throughout Revere.	Healthy Community Initiatives, Community Development	Ongoing	Staff time
Continue the Fall Festival and other annual cultural efforts sponsored by the City of Revere.	Parks & Rec	Ongoing	Staff time
Continue to support cultural programming in parks and public spaces sponsored by community organizations.	Community Development	Ongoing	Staff time
Continue to adorn underpasses and blighted areas with murals and other public art.	Healthy Community Initiatives, Community Development	Ongoing	Commonwealth Places, private funds

<b>Goal 5: Develop partnerships and engage in regional collaboration to maximize limited resources and support regional open spaces.</b>			
<b>Action Item</b>	<b>Parties Responsible</b>	<b>Timeframe</b>	<b>Funding Sources</b>
<b>Objective 5.1: Work in partnership with developers to ensure that new development and redevelopment includes open space protection and the provision of recreational space.*</b>			

Work with the owners of Overlook Ridge to connect the park at the stormwater management area to the future Northern Strand Community Trail and to develop amenities for trail users.	Community Development	Years 1-4	Staff time
Work with the developers of Wonderland and Suffolk Downs to ensure that any future redevelopment includes recreational space.	Community Development	Ongoing	Staff time
Work with the developers of the Waterfront Square TOD to ensure the construction of open space amenities.	Community Development	Ongoing	Staff time
Conduct regular inspections of Chapter 91 licensed properties to ensure that public waterfront amenities have been constructed and are being maintained.	Conservation Commission	Ongoing (every other year)	Staff time
<b>Objective 5.2: Coordinate with other Inner Core communities on regional open space initiatives, particularly the Northern Strand Community Trail.</b>			
Renovate Harmon Park as a rest stop for users of the Northern Strand Community Trail.	Community Development	Years 1-3	Staff time
Coordinate other communities along the Northern Strand Community Trail to establish shared maintenance, targeted destinations, and programming.	Community Development	Years 2-5	Staff time
Develop a maintenance plan for the Northern Strand Community Trail with Lynn and Saugus.	Community Development	Years 2-3	City, MAPC
Continue to participate in MAPC's Inner Core Committee.	Community Development	Ongoing	Staff time
<b>Objective 5.3: Continue to work with the Department of Conservation and Recreation to improve and expand their facilities.</b>			
Continue to work with DCR to respond to the needs of Revere residents when improving and expanding their facilities.	Community Development	Ongoing	Staff time
Work with DCR to develop the three proposed active recreation areas identified in the Revere Beach Master Plan.	Community Development	Ongoing	DCR

## STATE AND FEDERAL FUNDING SOURCES

### Local Acquisitions for Natural Diversity (LAND) Program

The LAND Program (formerly the Self-Help Program) was established in 1961 to assist municipal conservation commissions acquiring land for natural resource and passive outdoor recreation purposes. Lands acquired may include wildlife, habitat, trails, unique natural, historic or cultural resources, water resources, forest, and farm land. Compatible passive outdoor recreational uses such as hiking, fishing, hunting, cross-country skiing, bird observation and the like are encouraged. Access by the general public is required. This state program pays for the acquisition of land, or a partial interest (such as a conservation restriction), and associated acquisition costs such as appraisal reports and closing costs.

### Parkland Acquisitions and Renovations for Communities (PARC) Program

The PARC Program (formerly the Urban Self-Help Program) was established in 1977 to assist cities and towns in acquiring and developing land for park and outdoor recreation purposes. Any town with a population of 35,000 or more year-round residents, or any city regardless of size, that has an authorized park/recreation commission is eligible to participate in the program. Only projects that are to be developed for suitable outdoor recreation purposes, whether active or passive in nature, shall be considered for funding. Grants are available for the acquisition of land and the construction, or renovation of park and outdoor recreation facilities, such as swimming pools, zoos, athletic play fields, playgrounds and game courts. Access by the general public is required.

### Land and Water Conservation Fund (LWCF)

This is a federal program administered by the State Division of Conservation Services for the acquisition and development or renovation of park, recreation and conservation land. The Federal Land & Water Conservation Fund (P.L. 88-578) provides up to 50% of the total project cost for the acquisition, development and renovation of park, recreation or conservation areas. Municipalities, special districts and state agencies are eligible to apply. Nearly 4000 acres have been acquired and hundreds of parks renovated using the \$95.6 million that Massachusetts has received from the state side portion of the federal program since 1965. DCS administers the state side Land & Water Conservation Fund program in Massachusetts. Access by the general public is required.

### Recreational Trails Grant Program (RTGP)

The Recreational Trails Program provides grants ranging from \$2,000 to \$50,000 on a reimbursement basis for a variety of trail protection, construction, and stewardship projects throughout Massachusetts. It is part of the National Recreational Trails Program, which is funded through the Federal Highway Administration (FHWA). Funds are disbursed to each state to develop and maintain recreational trails and trail-related facilities for both non-

motorized and motorized recreational trail uses. In Massachusetts, funds are administered by the Department of Conservation and Recreation (DCR), in partnership with the Massachusetts Recreational Trails Advisory Board.

### Gateway Cities Program

The purpose of the Gateway City Parks Program (GCPP) is to improve park quality and advance park equity in urban communities by making targeted investments to create park and recreational opportunities. The program recognizes that public parks are essential to the health and economic well-being of urban areas, but that certain communities do not have the staff or funding to site, plan and build parks on their own. Thus, the GCPP provides a flexible menu of funding options for all phases of park development. Funding can also be used for activities and costs such as brownfield assessment and clean-up, park planning and recreational needs assessments—including the development of Open Space and Recreation Plans—activities not previously eligible for state parks funding. Approximately \$4 million in funding from the Environmental Bond Bill is allocated annually to park projects in Gateway Cities for acquisition, environmental clean-up, planning and assessment, design, construction, and other park related expenditures.

Created in recognition of the fact that public parks are essential to the health and economic wellbeing of urban areas, but that cities often lack the resources to plan and develop them, the Gateway City Parks program provides state support for urban parks, habitat protection, and preservation of working landscapes. Through this program the Patrick administration is partnering with cities to restore or create clean, safe places for children and families to enjoy and appreciate in places where residents often have few other options. Good neighborhood parks can also trigger further urban redevelopment, which is truly needed to support our gateway communities.

EEA gives priority to parks projects of different types and scales that are not eligible for another funding source. In addition, the program targets projects that address critical park infrastructure needs; have strong support from city leaders; engage local businesses, neighbors and others in park financing, programming and stewardship; support broader urban revitalization efforts; or are accessible to environmental justice neighborhoods. The program is open to communities with a population greater than 35,000 and with median annual household incomes, per capita incomes and educational attainment levels below the state average.

### Community Preservation Act

The idea of a real estate transfer tax was signed into law on September 14, 2000 as the Community Preservation Act (CPA). CPA is a tool for communities to preserve open space, historic sites, and affordable housing. The Community Preservation Act is statewide enabling legislation that allows cities and towns to exercise control over local planning decisions by providing a funding source which can be used to address three core community concerns:

- Acquisition and preservation of open space
- Creation and support of affordable housing
- Acquisition and preservation of historic buildings and landscapes



A minimum of 10% of the annual revenues of the fund must be used for each three core community concerns. The remaining 70% can be allocated for any combination of the allowed uses. This gives each community the opportunity to determine its priorities, plan for its future, and have the funds to make those plans happen. The City of Revere has chosen not to adopt the Community Preservation Act at this time because of the tax burden it would impose on residents.

## **SECTION 10: PUBLIC COMMENTS**



**The City of REVERE, MASSACHUSETTS**  
OFFICE OF STRATEGIC PLANNING & ECONOMIC DEVELOPMENT  
281 Broadway, Revere, MA 02151  
Phone: (781) 286-8186 Fax: (781) 286-8180  
**Robert B. O'Brien**  
Director

**Brian Arrigo**  
Mayor

September 4, 2018

Elle Baker  
Office of Strategic Planning and Economic Development  
Revere City Hall  
Revere, MA 02151

RE: City of Revere, Open Space and Recreation Plan 2018 – 2025

Dear Ms. Baker:

Please be advised that the Revere Planning Board has approved the City of Revere's 2018 – 2025 Open Space and Recreation Plan. The community goals stated in the plan to provide recreational opportunities for residents of all ages and all abilities and preserve Revere's natural resources, develop facilities and programs that promote fitness and health, improve stewardship of the parks, develop partnerships and engage in regional collaboration to maximize limited resources and develop regional open spaces, and ensure environmental justice and equity, are all in compliance with the objectives of the Revere Planning Board to facilitate the provision of parks and open space within the community including the preservation of natural resources.

Eugene McKenna  
Chairman  
Revere Planning Board



## CITY OF REVERE

Brian M. Arrigo  
Mayor

May 14, 2019

Melissa Cryan  
Executive Office of Energy and Environmental Affairs  
100 Cambridge Street – Suite 900  
Boston, MA 02114

RE: Revere Open Space and Recreation Plan

Ms. Cryan:

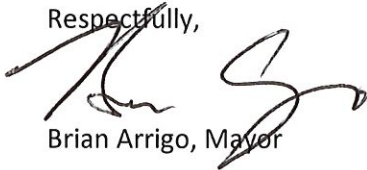
This letter serves to inform you that the Revere Open Space and Recreation Plan 2018-2025 was presented for my review and approval.

The plan represents the goals and objectives of the City of Revere in relation to Open Space and Recreation. This was the planned outcome from a collaborative effort among various Non-Profit Organizations, Boards, Neighborhood Groups, Parents, the Office of Strategic Planning and Economic Development, Revere Parks and Recreation, Revere DPW and Revere Public Schools over the course of a year.

Revere will refer to this plan for guidance as we seek to provide recreational opportunities for residents of all ages and abilities while protecting and preserving Revere's natural resources.

Please accept this letter as my approval of the 2018-2025 Revere Open Space and Recreation Plan.

Respectfully,



Brian Arrigo, Mayor



November 19, 2018

Melissa Cryan  
Executive Office of Energy and Environmental Affairs  
Division of Conservation Services  
100 Cambridge Street  
Boston, MA 02114

Re: Revere Open Space and Recreation Plan

Dear Ms. Cryan:

This letter will serve as MAPC's review of the City of Revere 2018 - 2025 Open Space and Recreation Plan. MAPC enjoyed working with the City of Revere to develop this plan. It was written to comply with the Division of Conservation Services (DCS) guidelines and to integrate a regional perspective on the issues addressed during the planning process. We have also worked to make the plan consistent with the goals and objectives of *MetroFuture*, the regional policy plan for the Boston metropolitan area. We believe that the participation of City staff, the enhanced outreach conducted during the preparation of the plan, and MAPC's regional perspective have generated a plan that will help to guide the City in its continued efforts to improve open space and recreation opportunities and facilities in Revere.

MAPC wishes the best of luck to the City as it moves forward with implementation of the plan.

Sincerely,

Mark Racicot  
Land Use Planning Director

## **SECTION 11: REFERENCES**

All references in this plan have been cited as footnotes throughout the document.

## **APPENDIX**

Americans with Disabilities Act (ADA) Access Self-Evaluation and Transition Plan

Activity and Use Limitations

The City of Revere has continually sought to recognize and provide for the special needs of people with disabilities. These concerns were incorporated into the open space planning process.

#### PART I: GENERAL REQUIREMENTS

This section reviews the City's general efforts to address the needs of people with disabilities which include the following: appointing an ADA / Section 504 Coordinator and responding to concerns regarding the provision of services to people with disabilities.

1. Designation of 504 Coordinator. Ralph DeCicco, Chair of the Commission on Disabilities, will be the officially designated 504 Coordinator for the City of Revere.

2. Grievance Procedures A sense that one has been discriminated against may be extremely painful. Accordingly, the City offers an opportunity for the public to pursue discrimination complaints.

Complaints. Any member of the public who wishes to file a formal complaint alleging discrimination on the basis of disability is asked to submit a written complaint to Ralph DeCicco at the Commission on Disability. The complaint should include relevant information about the alleged discrimination such as the name, address, and phone number of the complainant as well as the location, date, and description of the problem. Persons who are unable to make a written complaint due to disability may submit a tape recording or express their concerns verbally in an interview. The complaint may be submitted either by the grievant or by his/her designee. It should be received within 60 days of the alleged violation.

The initial goal of the Commission on Disability is to meet with the grievant to discuss the problem and possible resolutions. Within a reasonable time following that meeting, the ADA coordinator will make a written response regarding the complaint. Where appropriate, this response will also be made available in an accessible format such as large-type or audiotape. The response will explain the City's position and offer options for substantive resolution of the complaint. If the response of the Commission on Disability does not satisfactorily resolve the issue, the complainant and/or his/her designee may always seek appeal/review of the Commission's decision with the Mayor's Office. In the event the person is dissatisfied with the response of the Mayor's Office, the complainant ultimately may seek redress at the Revere City Council. It is unusual for cases to advance beyond the Office of the Commission on Disability, where most complaints are satisfactorily resolved.

Employee Grievances Union Employees. City employees who belong to a union (which includes virtually all City employees with a handful of statutory exceptions) are governed by the grievance procedures negotiated under their contract. In general, the procedure is:

STEP 1: Employee submits a written grievance to his/her supervisor, or directly to the Department Head. Within a short period, the Department Head must respond.

STEP 2: If the Department Head does not respond satisfactorily, the matter is brought to the Appointing Authority, generally the Mayor or his/her designee.



STEP 3: If the responses of the Mayor does not resolve the grievance, then the issue is submitted to arbitration. Arbitration proceedings are generally conducted in accord with the rules of the American Arbitration Association.

Non-Union Employees. For the handful of non-union employees, the procedures generally involve an attempt to resolve the issue at the Mayor's Office level. There is no appeal beyond that point.

### 3. Public Accommodations

The City strives to provide accommodations that will make its services accessible to people of all abilities. The City Hall complex, and all city buildings, are accessible to people with disabilities.

## PART II: EMPLOYMENT PRACTICES

It is the policy and practice of the City to comply fully with the Americans with Disabilities Act and to ensure equal opportunity in employment for all qualified persons with disabilities. The City is committed to ensuring non-discrimination in all terms, conditions, and privileges of employment. Reasonable accommodation is available to all employees and applicants. Worksites will be accessible. All employment decisions are based on merits in accordance with defined criteria, not the disability of the individual.

1. Recruitment A. Job announcements: Job descriptions and announcements are available and posted at City Hall, an accessible location.

B. Interviews: When interviews occur, they only address job qualifications. Department Heads are aware of their obligation not to inquire about any disability (visible or not).

2. Personnel Actions The hiring and promotion policies of the City of Revere are described in union contracts. The City adheres to these policies regardless of the disability status of the employee. The City does not compile statistics regarding employees with disabilities, nor does the City require or request that employees divulge their disability status. Anecdotal evidence (from employees who voluntarily reveal their disability status) indicates that people with disabilities work in a variety of City jobs.

3. Leave Administration Policies for granting leave are the same for all employees regardless of disability, and do not function so as to discriminate against people with disabilities.

4. Training. Training programs allow equal participation by people of all abilities.

5. Tests. The City does not use tests to make employment or promotion decisions.

6. Medical Examinations / Questionnaires. The City of Revere uses medical examinations only after conditional offers of employment and only to determine fitness for essential job responsibilities (e.g. firefighting).

7. Social / Recreation Programs. The City of Revere does not sponsor any social / recreation programs for its employees.

8. Fringe Benefits. Fringe benefits are the same for all employees, regardless of their disability status.

9. Collective Bargaining Agreements. The City's collective bargaining agreements do not contain any provisions that could be construed as limiting the participation of employees with disabilities.

10. Wage and Salary Administration. Each City job is assigned a level of pay consistent with the responsibilities, qualifications, and experience required for that job. This level of pay is consistent regardless of the employee who holds the job.

## ADA ACCESS SELF-EVALUATION & TRANSITION PLAN

These are properties that are managed by the Revere Parks & Recreation Department or Conservation Commission. All sites were outdoors (with the exception of bathrooms), and had no entrances, stairs, doors, swimming pools, shower rooms, or public phones.

Location	Parking	Pathway	Toilet Facility	Ramp	Picnic Area	Water Fountain
Ambrose Park/Veteran's Fields (Revere HS)	✓	✓	x	x	x	x
Ciarlone Tot Lot/DiSalvo Park (Whelan School)	✓	✓	x	x	x	x
Costa Park	x	✓	x	x	✓	x
Curtis Park (Garfield School)	✓	✓	x	x	✓	x
Della Russo Park	x	✓	x	x	x	x
Della Russo Stadium	✓	✓	✓	✓	x	✓
DeStoop Park (Oak Island)	x	✓	x	x	x	x
Dunn Road Conservation Land	x	x	x	x	x	x
Frederick Park (Beachmont School)	✓	✓	x	x	x	x
Gibson Park	✓	✓	x	x	x	x
Griswold Park	✓	✓	x	x	x	x
Harmon Park	x	✓	x	x	x	x
Leverett Avenue	x	✓	x	x	x	x
Liberty Park	x	✓	x	x	x	x
Lincoln School Park	✓	✓	x	x	✓	x
Louis Pasteur Park	x	✓	x	x	✓	x
Neponset Street Park	x	✓	x	x	x	x
North Revere Conservation Area	x	✓	x	x	x	x
North Shore Road Conservation Land	x	x	x	x	x	x
Pearl Avenue Park	x	✓	x	x	✓	x
Sonny Meyers Park	✓	✓	x	x	✓	x

Evaluations in this document are for properties owned by the City of Revere, managed by the Parks & Recreation Department or the Conservation Commission, and have facilities such as parking, a pathway, toilet facility, ramp, picnic area, or a water fountain. Properties that lack any facilities are identified on the ADA Inventory, but are absent from this document, as there are no facilities to evaluate.

**AMBROSE PARK/VETERAN'S FIELDS (REVERE HIGH SCHOOL)**

Facility	Evaluation
Parking	<ul style="list-style-type: none"> <li>• ADA accessible parking spaces at Revere High School</li> </ul>
Pathway	<ul style="list-style-type: none"> <li>• Clear path of travel from accessible parking spaces</li> <li>• Paved path surrounding Ambrose Park and tot lot</li> <li>• Hard-packed, accessible pathway from parking lot to turf field</li> </ul>
Other	<ul style="list-style-type: none"> <li>• No accessible seating at playing fields, only bleachers</li> </ul>
<p><b>Recommendations:</b> For the most part, no improvements are needed. The City should consider adding one accessible bench with back and sides to each field at Revere High School where there are only bleachers.</p>	

**CIARLONE TOT LOT/DISALVO PARK (WHELAN SCHOOL)**

Facility	Evaluation
Parking	<ul style="list-style-type: none"> <li>• ADA accessible parking spaces at Whelan School</li> </ul>
Pathway	<ul style="list-style-type: none"> <li>• Clear path of travel from accessible parking spaces</li> <li>• Paved path surrounding DiSalvo Park and tot lot</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Tot lot has accessible rubber surface</li> </ul>
<p><b>Recommendations:</b> No improvements are needed. Ciarlone Tot Lot was updated in 2014 and is ADA accessible.</p>	

**COSTA PARK**



Facility	Evaluation
Pathway	<ul style="list-style-type: none"> <li>• Accessible path of travel throughout entire park</li> </ul>
Picnic Area	<ul style="list-style-type: none"> <li>• Wheelchair accessible picnic table?</li> <li>• Accessible benches with backs and sides</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Playground has accessible rubber surface</li> <li>• No parking lot, only street parking</li> </ul>

**Recommendations:**

Since there is no parking lot, the City should consider designating an accessible space along Walnut or Shirley Avenue. Otherwise, no improvements are needed as Costa Park was completely renovated in 2013.

**CURTIS PARK (GARFIELD SCHOOL)**



Facility	Evaluation
Parking	<ul style="list-style-type: none"> <li>• ADA accessible parking spaces at Garfield School</li> </ul>
Pathway	<ul style="list-style-type: none"> <li>• Paved path for travel from parking lot to playground</li> </ul>
Picnic Area	<ul style="list-style-type: none"> <li>• There is one wheelchair-accessible picnic table, but it is not in an accessible location (down a small grass hill)</li> </ul>

	<ul style="list-style-type: none"> <li>• Accessible benches with backs and sides</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Wood chips on playground are flush with wooden blocks enclosing playground and do not impede access</li> </ul>
<p><b>Recommendations:</b></p> <p>While there is already a wheelchair-accessible picnic table at Curtis Park, it is currently located in an inaccessible area down a small grass hill. The picnic table should be moved to an easily accessible area with a hard packed surface. No other improvements are needed as Curtis Park was updated in 2016.</p>	

**DELLA RUSSO PARK**

Facility	Evaluation
Pathway	<ul style="list-style-type: none"> <li>• No accessible pathway from limited parking area to tot lot, currently uneven grass</li> <li>• Wood beams enclosing the play area and holding in wood chips impede access</li> </ul>
Other	<ul style="list-style-type: none"> <li>• No marked parking spaces, only a small parking area at dead end of Washington Street</li> </ul>
<p><b>Recommendations:</b></p> <p>No improvements are needed at this time since the City is currently evaluating how it wants to repurpose this site. It is considering removing the play structure and adding an artificial turf field.</p>	

**DELLA RUSSO STADIUM**



Facility	Evaluation
Parking	<ul style="list-style-type: none"> <li>• ADA accessible parking spaces at Paul Revere School</li> </ul>
Pathway	<ul style="list-style-type: none"> <li>• Paved path for travel from parking lot to stadium</li> </ul>

Toilet Facility	<ul style="list-style-type: none"> <li>• ADA accessible toilet facility</li> </ul>
Ramp	<ul style="list-style-type: none"> <li>• ADA accessible ramp leading from pathway up to bleachers</li> </ul>
Water Fountain	<ul style="list-style-type: none"> <li>• ADA accessible water fountain</li> </ul>
<p><b>Recommendations:</b></p> <p>No improvements are needed as Della Russo Stadium was constructed in 2015 and is completely ADA accessible.</p>	

**DESTOOP PARK (OAK ISLAND)**



Facility	Evaluation
Pathway	<ul style="list-style-type: none"> <li>• Paved paths throughout park</li> <li>• Wood chips in playground flush with ground surface</li> </ul>
Other	<ul style="list-style-type: none"> <li>• No parking lot, only street parking</li> </ul>
<p><b>Recommendations:</b></p> <p>Since there is no parking lot, the City should consider designating an accessible space along Dashwood Street near the curbcut entrance to Oak Island Park. Otherwise, no improvements are needed as the park was completely renovated in the fall of 2016.</p>	

**FREDERICK PARK (BEACHMONT SCHOOL)**



Facility	Evaluation
Parking	<ul style="list-style-type: none"> <li>• ADA accessible parking spaces at Beachmont School</li> </ul>
Pathway	<ul style="list-style-type: none"> <li>• Clear path of travel from accessible parking spaces</li> <li>• Paved path surrounding Frederick Park and tot lot</li> <li>• Wood chips in playground flush with ground surface</li> </ul>
<p><b>Recommendations:</b> No improvements are needed as the tot lot was constructed in 2015 and is ADA accessible.</p>	

**GIBSON PARK**



Facility	Evaluation
Parking	<ul style="list-style-type: none"> <li>• Unmarked parking spaces in lot; no designated accessible spaces with signs</li> <li>• Accessible drop-off area next to curbcut but could be confused with a parking space</li> <li>• Some cracks in surface of parking lot</li> </ul>
Pathway	<ul style="list-style-type: none"> <li>• New paved pathway in one area near entrance to community garden</li> <li>• All other paths have cracks with heaving asphalt</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Playground inaccessible due to sand surface</li> <li>• Some benches with backs but no sides</li> <li>• No accessible path of travel to where benches are located</li> </ul>
<p><b>Recommendations:</b> The City is already targeting Gibson Park for upgrades that would include ADA accessibility improvements. Modifications made to Gibson Park should include replacing the playground surface with rubber or wood chips, repaving the pathways around the park so they do not pose a trip hazard, and adding accessible benches. The City has expressed an interest in constructing an accessible walkway that would extend from the edge of the baseball field to the shore.</p>	



**GRISWOLD PARK**

Facility	Evaluation
Parking	<ul style="list-style-type: none"> <li>• Two ADA accessible spaces with van space</li> </ul>
Pathway	<ul style="list-style-type: none"> <li>• Clear path of travel from accessible parking spaces to bleachers and fields</li> </ul>
<p><b>Recommendations:</b> The City should consider adding an ADA accessible bench with a back and sides to the area around the bleachers.</p>	

**HARMON PARK**

Facility	Evaluation
Pathway	<ul style="list-style-type: none"> <li>• Basketball court and asphalt throughout park are cracked</li> </ul>
Other	<ul style="list-style-type: none"> <li>• No parking lot, only street parking</li> <li>• Swing set located in an inaccessible location (uneven grassy area)</li> </ul>
<p><b>Recommendations:</b> Reconstruction of Harmon Park is in progress and will be completed in 2018. When complete, Harmon Park will be fully ADA accessible. The Northern Strand Community Trail runs along the eastern border of the park, which the City has plans to pave.</p>	

**LEVERETT AVENUE PARK**

Facility	Evaluation
Pathway	<ul style="list-style-type: none"> <li>• Hard-packed, stone dust paths throughout landscaped area</li> </ul>
Other	<ul style="list-style-type: none"> <li>• No parking lot, only street parking</li> </ul>
<p><b>Recommendations:</b> No improvements are needed.</p>	

**LIBERTY PARK**

Facility	Evaluation
Pathway	<ul style="list-style-type: none"> <li>• Clear path of travel from street to playground</li> </ul>
Other	<ul style="list-style-type: none"> <li>• No parking lot, only street parking</li> </ul>
<p><b>Recommendations:</b> No improvements are needed as the park was updated in 2015 and is ADA accessible.</p>	

**LINCOLN SCHOOL PARK**



Facility	Evaluation
Parking	<ul style="list-style-type: none"> <li>• ADA accessible parking spaces at Lincoln School</li> </ul>
Pathway	<ul style="list-style-type: none"> <li>• Grass path to get to basketball court and playground area could impede access</li> <li>• Wood chips in playground flush with ground surface</li> </ul>
Picnic Area	<ul style="list-style-type: none"> <li>• Picnic table is not wheelchair accessible</li> </ul>
<p><b>Recommendations:</b> The City constructed a new basketball court and playground at the Lincoln School in 2017, so the site is primarily ADA accessible. Further, the playground includes a Cozy Cocoon, a piece of inclusive play equipment that is designed for children with autism spectrum disorder. One potential modification for the site could be to pave the grass entrance to the park as to not impede access. The City could also consider adding a wheelchair accessible picnic table.</p>	

**LOUIS PASTEUR PARK**

Facility	Evaluation
Pathway	<ul style="list-style-type: none"> <li>Asphalt pathways around playground have cracks</li> </ul>
Picnic Area	<ul style="list-style-type: none"> <li>Picnic table is wheelchair accessible but located in an inaccessible location</li> </ul>
Other	<ul style="list-style-type: none"> <li>No parking lot, only street parking</li> </ul>
<p><b>Recommendations:</b>                      The City should consider repaving the pathways throughout Louis Pasteur Park to remove trip hazards. The picnic table should be moved to a paved area if possible.</p>	

**NEPONSET STREET PARK**

Facility	Evaluation
Pathway	<ul style="list-style-type: none"> <li>Pathways throughout park are cracked with changes in level</li> <li>Access to playing surface impeded by concrete blocks holding in wood chips</li> </ul>
Other	<ul style="list-style-type: none"> <li>No parking lot, only street parking</li> </ul>
<p><b>Recommendations:</b>                      The City should consider repaving the pathways throughout Neponset Street Park to remove trip hazards. A ramp should be installed to provide access to the play area.</p>	

**NORTH REVERE CONSERVATION AREA**

Facility	Evaluation
Pathway	<ul style="list-style-type: none"> <li>Area contains trails from a previous use</li> </ul>
Other	<ul style="list-style-type: none"> <li>No parking lot, only street parking</li> </ul>
<p><b>Recommendations:</b>                      This is an underutilized area that is primarily used by dog walkers. Though it has trails left over from a previous use, they are not ADA accessible. No improvements are needed as the City has no plans to promote recreation on this site.</p>	

**PEARL AVENUE PARK**

Facility	Evaluation
Pathway	<ul style="list-style-type: none"> <li>• Access to playground impeded by railroad ties and a steep drop to the wood chip surface</li> </ul>
Picnic Area	<ul style="list-style-type: none"> <li>• Picnic table is wheelchair accessible</li> </ul>
Other	<ul style="list-style-type: none"> <li>• No parking lot, only street parking</li> </ul>

**Recommendations:**

The City should consider repaving the Orchard Street entrance to Pearl Avenue Park and install a ramp that provides access to the playground.

**SONNY MEYERS PARK**



Facility	Evaluation
Parking	<ul style="list-style-type: none"> <li>• ADA accessible parking spaces at Revere Historical Society</li> </ul>
Pathway	<ul style="list-style-type: none"> <li>• Accessible concrete pathway through park</li> <li>• Hard to access play areas because woodchips are not flush with concrete</li> </ul>
Picnic Area	<ul style="list-style-type: none"> <li>• Picnic tables are not wheelchair accessible and there is no accessible pathway to them</li> </ul>

**Recommendations:**

The City should consider adding more wood chips so the play surface is flush with the concrete path bisecting Sonny Myers Park. A wheelchair-accessible picnic table should be added to a paved portion of the park.

## ACTIVITY AND USE LIMITATIONS

Of the 464 hazardous waste sites in Revere identified by Massachusetts Department of Environmental Protection (MassDEP) Bureau of Waste Site Cleanup, 49 have Activity and Use Limitations (AUL) placed upon them.

Release Address	Site Name Location Aid	Reporting Category	Notification Date	Compliance Status	Compliance Date	Phase	RAO Class	Chemical Type
140 LEE BURBANK HIGHWAY	GLOBAL PETROLEUM	TWO HR	12/14/2013	PSC	12/15/2014			Oil
OCEAN AVE AND REVERE STREET	NORTH LOT	120 DY	06/24/2013	RAO	11/27/2013		B2	Hazardous Material
135 AMERICAN LEGION HWY	NECCO FACILITY	TWO HR	10/05/2012	PSC	08/10/2017	PHASE III		Hazardous Material
128 REVERE STREET	NO LOCATION AID	72 HR	07/20/2012	PSC	06/21/2014	PHASE II		Oil
420 REVERE BEACH BLVD	HRCA HOUSING FOR ELDERLY INC	120 DY	04/27/2012	RAO	05/06/2013		A3	Hazardous Material
420 RESERVOIR AVENUE	PROSPECT HOUSE	TWO HR	03/21/2011	RAO	07/19/2013	PHASE II	A3	Hazardous Material
135 AMERICAN LEGION HWY	NO LOCATION AID	120 DY	04/07/2008	RAO	10/19/2009		B2	Hazardous Material
BROADWAY RTE 107 AND WARD ST	JUNKYARD	120 DY	10/11/2007	RAO	12/31/2008	PHASE II	A2	Oil and Hazardous Material
60 UPHAM ST	SITE DEVELOPMENT	72 HR	07/24/2007	RAO	06/27/2013	PHASE III	A3	Oil
101 SCHOOL ST	PROPOSED RUMNEY MARSH SCHOOL	120 DY	04/26/2006	RAO	12/11/2009	PHASE III	A3	Oil and Hazardous Material

Release Address	Site Name Location Aid	Reporting Category	Notification Date	Compliance Status	Compliance Date	Phase	RAO Class	Chemical Type
485 BROADWAY	NO LOCATION AID	72 HR	11/10/2005	RAO	03/05/2014	PHASE IV	A3	Oil
420 REVERE BEACH BLVD	JACK SATTER HOUSE	120 DY	03/28/2005	RAO	03/29/2006		B2	Oil and Hazardous Material
101 LEE BURBANK HWY	GLOBAL TANK FARM- TANK 25/RTE 1A	TWO HR	01/30/2005	RAO	01/30/2006		A3	Hazardous Material
49 LEE BURBANK HWY	GLOBAL SOUTH TERM LLC TANK NO 38	TWO HR	05/25/2004	RAO	03/23/2007	PHASE II	A3	Oil
TOMASELLO RD	ADJACENT SUFFOLK DOWNS	120 DY	08/05/2003	RAO	10/11/2005	PHASE II		Oil
TOMASELLO RD	ADJACENT TO SUFFOLK DOWNS	120 DY	08/05/2003	RAO	10/11/2005	PHASE II	A3	Hazardous Material
144 BROADWAY	NO LOCATION AID	120 DY	10/28/2002	RAO	11/04/2003		A3	Oil
101 LEE BURBANK HWY	PIPING AT TANK 15 DIKE	TWO HR	03/04/2002	RAO	03/11/2003		A3	Oil
101 LEE BURBANK HWY	ROUTE 1A	120 DY	03/01/2002	RAO	07/01/2002			Oil
101 LEE BURBANK HWY	RTE 1A	120 DY	12/31/2001	RAO	08/28/2003	PHASE II	A3	Oil
24 WHITIN AVE	NO LOCATION AID	TWO HR	02/27/2001	RAO	11/05/2001		A3	Oil
777 NORTH SHORE RD	RENT A TOOL	72 HR	11/10/2000	RAO	10/04/2010	PHASE III	A3	Oil
140 WARD ST	NO LOCATION AID	120 DY	10/05/2000	RAO	01/21/2004		B2	Hazardous Material

Release Address	Site Name Location Aid	Reporting Category	Notification Date	Compliance Status	Compliance Date	Phase	RAO Class	Chemical Type
LEE BURBANK HWY	GLOBAL	TWO HR	02/16/2000	RTN CLOSED	06/28/2000	PHASE II		Oil
222 LEE BURBANK HWY	TANK FARM TANK 11	120 DY	02/01/2000	RTN CLOSED	06/28/2000	PHASE II		Oil
222 LEE BURBANK HWY	VICINITY OF TANK NO 19	120 DY	09/03/1999	RTN CLOSED	06/29/2000			Oil and Hazardous Material
101 AMERICAN LEGION HWY	VACANT LOT	120 DY	04/23/1999	RAO	03/31/2003	PHASE IV	A3	Oil and Hazardous Material
222 LEE BURBANK HWY	TANK 15 DIKE AREA	120 DY	07/29/1999	RAO	07/26/2002	PHASE II	B2	Oil
222 LEE BURBANK HWY	TANK FARM TANK 11	TWO HR	06/24/1999	RAO	07/01/2002	PHASE II	A3	Oil
96 LEE BURBANK HWY	FMR 1000 GALLON UST	120 DY	05/21/1999	RAO	03/21/1997			Oil
222 LEE BURBANK HWY	NO LOCATION AID	TWO HR	02/18/1999	RAO	05/08/2000			Oil
222 LEE BURBANK HWY	GLOBAL REVCO	TWO HR	01/18/1999	RAO	01/16/2003	PHASE IV	A3	Oil
20 RAILROAD ST	INTERSECTION ROUTE 1A	120 DY	01/13/1999	RAO	10/04/2010	PHASE IV	A3	Oil and Hazardous Material
140 LEE BURBANK HWY	FMR VAPOR RECOVERY UNIT	72 HR	01/08/1999	RAO	01/18/2002	PHASE II	A3	Oil
222 LEE BURBANK HWY	NO LOCATION AID	72 HR	10/26/1998	RAO	11/07/2001	PHASE II	A3	

Release Address	Site Name Location Aid	Reporting Category	Notification Date	Compliance Status	Compliance Date	Phase	RAO Class	Chemical Type
222 LEE BURBANK HWY	NO LOCATION AID	72 HR	10/26/1998	RAO	05/08/2000			Oil
222 LEE BURBANK HWY	FMR GLOBAL RENCO	72 HR	10/08/1998	RAO	05/08/2000	PHASE II		
201 CONSTITUTION AVE	GORDON AVE REVERE HOUSING AUTHORITY	TWO HR	01/14/1998	RAO	01/16/2001	PHASE II	A3	Oil
140 LEE BURBANK HWY	GLOBAL PETRO	TWO HR	02/18/1997	TMPS	09/11/2017			Oil
96 LEE BURBANK HWY	NE PETROLEUM	72 HR	03/21/1996	RAO	03/21/1997		A3	Oil
147 SQUIRE RD	NO LOCATION AID	120 DY	03/07/1996	RAO	03/05/1999	PHASE II	A3	Oil and Hazardous Material
251 LEE BURBANK HWY	SUNOCO SERVICE STA	72 HR	09/14/1994	RAO	02/20/1996	PHASE II	A3	Oil
339 WASHINGTON AVE	BETWEEN CUSHING & HAITH STS	120 DY	08/12/1994	RAO	09/08/1994		B2	Oil
787 NORTH SHORE RD	MARJEN AUTO BODY	NONE	10/15/1992	RAO	11/30/1995		A3	
WHARF RAILROAD ST	PROPERTY	NONE	01/15/1992	RAO	08/07/2002		A3	
1300 NORTH SHORE RD	GASOLINE STATION FMR	NONE	01/15/1991	RAO	05/10/1999	PHASE III	A3	
453 BROADWAY	OLD CITY YARD	NONE	04/15/1989	RAO	07/21/1998	PHASE II	A3	



Release Address	Site Name Location Aid	Reporting Category	Notification Date	Compliance Status	Compliance Date	Phase	RAO Class	Chemical Type
12 SQUIRE RD	OLD COLONY GASOLINE STA FMR	NONE	01/15/1987	RAO	10/31/1996	PHASE II	A3	
28 SPRING AVE	HY SIL KEYES FIBER FMR	NONE	01/15/1987	RAO	12/03/1997	PHASE II	A3	