

Prepared for:

Town of Saugus Planning and Development Department Saugus, MA 01906

Prepared by:

Metropolitan Area Planning Council Boston, MA 02111 www.mapc.org



WILL

Acknowledgements

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Section 1: Plan Summary

The Town of Saugus' Open Space and Recreation Plan (OSRP) has been prepared as a planning guide for various Town commissions, boards, and officials, as well as residents of Saugus and other stakeholders. The plan reflects the Town's continued desire to protect and preserve environmentally sensitive areas or areas that provide significant open space. Additionally, the plan provides an assessment of the existing recreational facilities in town and looks at what future needs might be for both passive and active recreation in order to accommodate users of all ages.

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 the Town of Saugus Planning and Development Department.

The quality of life for Saugus residents and residents of surrounding communities is enhanced dramatically by the open space areas of Rumney Marsh, Breakheart Reservation, Vinegar Hill, and the numerous playgrounds, fields, and parks that exist within the community. An inventory of these areas and others is included in this OSRP as both an educational resource for residents and town officials, as well as a base for the Seven-Year Action Plan, which highlights open space and recreation priorities for the next seven years.

Also included in this OSRP is an overview of the history of Saugus, its physical development, and environmental characteristics. Such thorough background information is provided to both engage the reader and illustrate a full picture of the community and its resources. This document is also meant to guide future open space planning and implementation efforts, including compliance with funding opportunities like Local Acquisitions for Natural Diversity (LAND) and Parkland Acquisitions and Renovations for Communities (PARC) grants administered by the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA), Division of Conservation Services (DCS). The approval of this OSRP by DCS enables Saugus to compete for such funds, which the Town can use for land acquisition and improvement of parks and other open spaces.

The Town of Saugus hired the Metropolitan Area Planning Council to do a formal update of the Town's OSRP from 2005-2010, and the project kicked off in October of 2016. Between October 2016 and April 2017, MAPC met numerous times with the Town of Saugus' Open Space and Recreation Committee, held both a public forum and a focus group, and provided the necessary text and map updates to the Town's OSRP. MAPC submitted a draft to the Division of Conservation Services in July 2017. MAPC's work built off an earlier effort on behalf of the Open Space and Recreation Committee to update its OSRP in 2011 and 2012.

Town of Saugus Open Space and Recreation Committee Members:

- Lorna Cerbone, Solid Waste/Recycling Coordinator
- Ann Devlin, President of Saugus Action Volunteers for the Environment, Town Meeting Member, Member of Tree Committee

- Kathy Forbes, Chairperson of Commission on Disability
- Joan Fowler, Member Conservation Commission
- David Greenbaum, Director of Public Health
- Joan LeBlanc, Executive Director of Saugus River Watershed Council
- Frank McKinnon, Conservation Officer
- Greg Nickolas, Director of Youth and Recreation Department
- Paul Petkewich, Director of Saugus Athletic League
- Stephen Rich, Architect and Member of Commission on Disability
- Kathy Tozza, Resident

Section 2: Introduction

Statement of Purpose

The Town of Saugus has many valuable natural and recreational resource areas spread throughout the community. Natural habitats, watershed areas, and their contribution to biodiversity of plant life and wildlife, as well as scores of open spaces and recreational areas, all characterize a unique and special setting for Saugus.

The purpose of this Open Space and Recreation Plan (OSRP) update is to:

- Utilize the Saugus Open Space and Recreation Plan from 2005-2010 and update
 its information to create a document that outlines a seven-year plan of action for
 the protection, caretaking, and enhancement of natural resources and recreational
 areas in Saugus;
- Increase awareness and educate residents who live in Saugus and other nearby communities about the open space and recreation amenities that exist in Saugus and their associated needs; and
- Formulate a stronger community base that will take charge of administering the Open Space and Recreation Plan and sustain a commitment to the protection and enhancement of areas discussed within.

The Open Space and Recreation Plan is organized to provide an overall baseline of information regarding what physical resources exist in Saugus regarding properties, facilities, and infrastructure. The plan also discusses the organizational structure of Saugus (for maintenance, management, and overall decision-making related to open space and recreation) and serves as an informational resource that inventories and describes resources, opportunities, and challenges. Saugus should consider this Open Space and Recreation Plan a blueprint to follow for the next seven years that will help the Town attain its goals and objectives regarding open space and natural resources.

Planning Process and Public Participation

From July through December 2011, an appointed Open Space and Recreation Committee undertook an update of Saugus' OSRP from 2005-2010. The committee conducted a public meeting for review and comment, and referred the updated Open Space and Recreation Plan for the years 2011-2015 to the Board of Selectmen with a recommendation for its adoption and submission to the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA), Division of Conservation Services (DCS). The committee submitted the OSRP to DCS in June of 2012. In July of 2012, DCS gave conditional approval with a list of items to be addressed before final approval would be granted.

In 2016, the Town of Saugus hired the Metropolitan Area Planning Council (MAPC) to do a formal update of the Town's OSRP that addressed gaps in the draft conditionally approved by DCS in 2012. This involved the production of several required and optional

maps, the completion of the ADA Self-Evaluation and Transition Plan, additional public engagement, and more.

This update of the Saugus Open Space and Recreation Plan kicked off on October 24, 2016 with a tour of Saugus' natural and recreational resources with MAPC staff and members of the Open Space and Recreation Committee. The group visited sites such as Rumney Marsh, Anna Parker Playground, and Prankers Pond, while discussing the needs of each site and its potential for improvement. Following the tour, MAPC held its first meeting with the Open Space and Recreation Committee to discuss the process and priorities for updating the OSRP. MAPC met with the Open Space and Recreation Plan Committee again on December 5 and January 30 to review and update goals and objectives from the 2012 draft OSRP, review maps prepared by MAPC for the plan, and devise an outreach strategy for a subsequent community open house and focus group. A final meeting was held on April 24 to review the full draft of the Open Space and Recreation Plan, including the Seven-Year Action Plan.

On November 7, MAPC staff and Saugus' Town Planner conducted an Americans with Disabilities Act (ADA) Access Self-Evaluation of all the parks and open spaces in town managed by either the Conservation Commission or the Youth and Recreation Department. The assessment helped determine how accessible Saugus' conservation and recreation 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 (Appendix 1).

Based on the 2010 Environmental Justice Population data provided by MassGIS, Saugus has one block group that meets Environmental Justice criteria, and it is due to an annual median household income equal to or less than 65% of the statewide median. While a variety of factors may attribute to the significantly lower median household income of this block group, a likely reason is the presence of several Saugus Housing Authority (SHA) complexes in the block group's area. To be eligible for a unit in one of SHA's properties, applicants must have an annual household income under \$46,300 for one person and \$52,950 for two people. They also must be 60 years of age or older, disabled, and/or handicapped at the time they apply for housing. The majority of SHA residents are seniors.

In order to ensure that seniors and persons with disabilities in Saugus were reached as a part of this planning process, MAPC, with assistance from Saugus' Town Planner, held a focus group during the afternoon of February 27, 2017 at the Saugus Senior Center. Over a dozen seniors participated in this focus group; the discussion centered on ways to improve open space and recreation facilities in town to better suit the needs of seniors and those with disabilities, both from a structural and programmatic perspective. Not only did this focus group help reach a group that may not be able to attend a night meeting, but it also provided vital input for the ADA Transition Plan.

The focus group with seniors was advertised in the monthly Senior Center newsletter and Joanne Olsen, Director of the Saugus Senior Center, put a blurb in the Daily Item, Advocate, and Advertiser under the Senior Center Monthly Activities. The Director of the Saugus Housing Authority, Laura Glynn, also helped with outreach and contacted residents

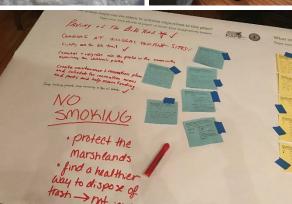
with an interest in this topic. Flyers with information about the focus group were placed around the Senior Center and Saugus Housing Authority properties.

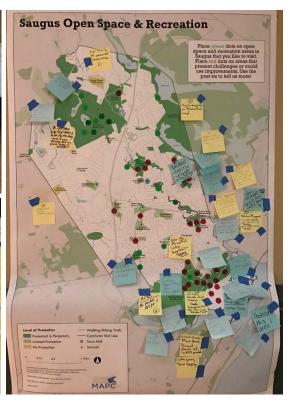
The Saugus Open Space and Recreation Plan culminated with a Community Forum on March 16, 2017 at Saugus Town Hall. At this event, the Saugus Town Planner welcomed attendees and MAPC gave a presentation which provided an introduction to the Saugus Open Space and Recreation Plan and gave an overview of the town's demographics, land use, and open space and recreation features. Following the presentation, the group broke out into open house stations that attendees could visit in any order. At the stations, attendees could share their input on the strengths, weaknesses, and opportunities associated with Saugus' open space and recreation facilities. They could also help prioritize and provide feedback on the goals and objectives for the OSRP.

February Community Forum









Leading up to the Community Forum, the Town of Saugus and MAPC did extensive outreach to spread the word about the event. Stacks of the event flyer were placed in public buildings like Town Hall and the Saugus Public Library, and flyers were hung throughout Saugus: at parks and recreation facilities, the Senior Center and Saugus Housing Authority properties, the Saugus YMCA, and more. The event was also advertised on the Town of Saugus' website, on the local cable access channel, and through Town email listservs. Additional targeted outreach took place to reach Saugus' environmental community and users of the Youth and Recreation Department's programs and facilities.

In order to provide an additional incentive for attending the forum, MAPC raffled off three \$25 gift certificates to a local grocery store at the end of the event; entering the

raffle was completely free for attendees. The presentation portion of the Community Forum was filmed and broadcasted on Saugus' cable access channel, SaugusTV, and could be viewed by any interested residents in the weeks following the event.

Section 3: Community Setting

Regional Context

The Town of Saugus, situated in the southernmost corner of Essex County, makes up approximately 13.5 square miles in area and abuts the waterfront. As shown in Figure 1, the town is bounded on the north by Lynnfield and Wakefield, on the east by Lynn, on the south by Revere, and on the west by Revere, Melrose, and Wakefield. These adjacent cities and towns share a number of land use and development characteristics with Saugus; each one of them is well established and generally built-out, especially with respect to residential development. The majority of each community's workforce travels beyond its respective boundary to elsewhere in the Greater Boston region for employment.

Saugus is strategically located within its metropolitan area. The town is approximately ten miles from Boston and closely situated to both the I-93 and I-95 highways. In addition, Routes 1 and 107 generate considerable traffic through the community en route to the north shore. One of the largest salt marshes in the area, Rumney Marsh, occupies nearly two square miles of the town's area. A significant portion of the 600-plus acre reservation lies in neighboring Revere, and Revere Beach separates Rumney Marsh from the Massachusetts Bay. Tidal influence from the bay extends up the Saugus River as far as the Saugus Ironworks National Historic Site.

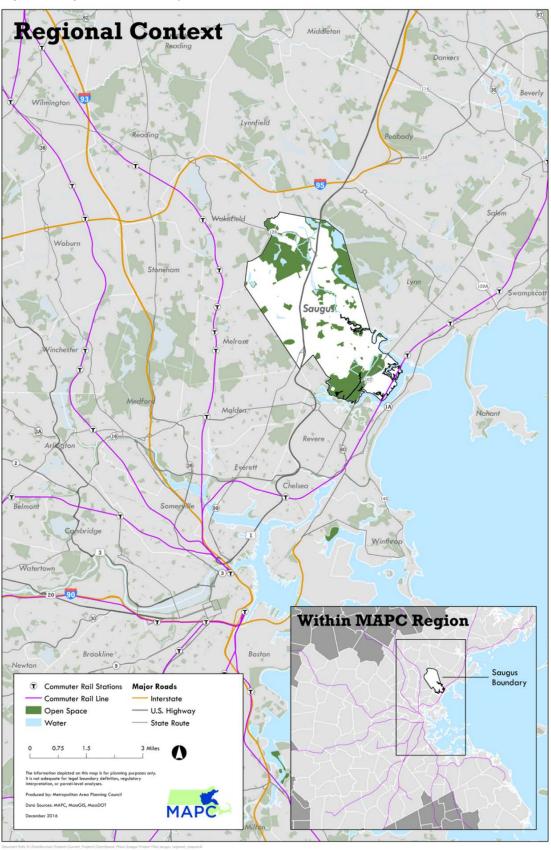
The Town of Saugus is located in the coastal region of eastern Massachusetts, within the Saugus River Watershed. In addition to Saugus, the watershed includes all or part of Everett, Lynn, Lynnfield, Malden, Melrose, Peabody, Reading, Revere, Stoneham, and Wakefield. Wakefield's Lake Quannapowitt forms the headwaters of the Saugus River, from which it meanders through Wakefield, Saugus, and Lynn before emptying into Rumney Marsh. In Saugus, tributaries of the namesake river include Hawkes Brook, Bennets Pond Brook, and Shute Brook.¹

Saugus is one of 101 cities and towns represented by the Metropolitan Area Planning Council (MAPC), the regional planning agency for the Greater Boston region. 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 Saugus Open Space and Recreation Plan, including:

- 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.

¹ "About the Watershed," Saugus River Watershed Council, www.saugusriver.org/about_watershed.htm

Figure 1: Regional Context Map



- 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.

Saugus is within the Inner Core Committee (ICC), one of eight MAPC subregions, which consists of 21 of the most urban and populous cities and towns in the Boston metropolitan area.² However, unlike the other communities in the Inner Core, Saugus is not a regional urban center, but rather a mature suburban town. Mid-century suburbs like Saugus are nearly built out, moderately dense communities with relatively stable populations. Housing is largely comprised of owner-occupied, single-family homes on ½-½-acre lots. There are scattered parcels of vacant development land, however new residential development is mainly produced via infill development, some redevelopment, and teardowns.³ In communities where vacant land is scare, such as in Saugus, opportunities for open space preservation are often limited and come up against demands for residential and commercial growth.

Saugus is characterized as predominantly family-oriented, working class/blue-collar community. Residents recognize and appreciate Saugus' small town feel and accompanying characteristics like locally owned shops and restaurants, an annual fall festival, and being able to walk down the street and feel safe in their neighborhood. Community members value the abundant open space and recreation resources in Saugus, though they acknowledge that updates are necessary to improve the condition of many of the recreation facilities, like ball fields and playgrounds.

In contrast to Saugus' quiet residential character, the town is also home to a portion of Route 1, which is a major thoroughfare into and out of Boston. The commercial businesses on this strip contribute heavily to the local economy in terms of providing jobs and lowering the tax burden of residents. The tremendous complex of various retail establishments along Route 1 brings in thousands of people daily to Saugus from a wide geographic area. Due to the continuing demand for the multiplicity of services provided in this corridor, the Town must balance the urge for new development along this corridor with the residential and open space needs that abut the business area.

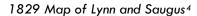
History of the Community

In the early 1630s, the area known as "Saugus" included the present Towns of Saugus, Swampscott, Lynnfield, Reading, Wakefield, and Nahant, as well as the City of Lynn.

² Other communities in the Inner Core Committee are Arlington, Belmont, Boston, Brookline, Cambridge, Chelsea, Everett, Lynn, Malden, Medford, Melrose, Milton, Newton, Quincy, Revere, Somerville, Waltham, Watertown, and Winthrop

³ Saugus Housing Production Plan (2016), produced by the Metropolitan Area Planning Council

Legislative enactment in 1637 changed the name of the area from "Saugus" to "Lin." In 1712, the area now known as Lynnfield became the Second Parish of Lynn. The area now known as Saugus became the West Parish, or the Third Parish, of Lynn about 25 years later.





The present Town of Saugus area continued to be known as Lynn until 1815, when it was set off from Lynn and incorporated under its original name. The character of Saugus evolved throughout this 200-year period, largely in response to various economic, industrial, and transportation developments. While the town was initially settled as an agricultural center, industrialization, prompted in large part by the opening of the Saugus Iron Works in 1643, brought greater numbers of people to the area and a demand for permanent housing. The Iron Works was one of the most technologically advanced iron works in the world and it produced over a ton of iron a day. As a financial endeavor, however, the Saugus Iron Works was not successful and it closed around 1670.

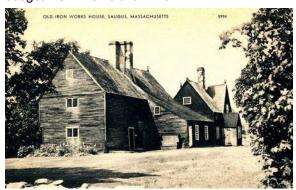
At the time of its incorporation in 1815, the population of Saugus was only about 800 people. Over the next few decades, the town's population grew, industries thrived in the Saugus River vicinity, and agricultural production continued. Openings of both the Newburyport Turnpike (now Route 1) and the Salem Turnpike (now Route 107) facilitated regional transportation networks and connected Saugus to Boston, furthering the community's growth. Saugus Center emerged as the town's civic core, and both Saugus Center and East Saugus became nodes of small-scale commercial activity.

After harnessing the Saugus River for power in the first decade of the 1800s, the area became a magnet for manufacturing, commercial, and residential activity. Industrial production in Saugus was diverse, with mill sites producing everything from chocolate,

⁴ Photo source: http://www.mapsofantiquity.com/store/Antique_Maps_-_Massachusetts/Essex_County/Lynn/ Map_of_Lynn_and_Saugus._Settled_in_1629./images/MAS1336.JPG

snuff, and tobacco to nails, textiles, and shoes. Contrary to the typically agricultural character of most Essex County towns, 60% of Saugus' work force was involved in manufacturing by 1820. North Saugus remained the principal agricultural district in town.

Saugus Iron Works and Mills⁵





Breakheart Hill Forest, once a private hunting retreat in North Saugus, was purchased by the Metropolitan District Commission (now the Commonwealth's Department of Conservation and Recreation) for \$40,000, for use as a state park. Shortly after the 1934 purchase, the Metropolitan District Commission turned the land over to the Civilian Conservation Corps (CCC), a public work relief program under President Franklin D. Roosevelt's New Deal. The CCC built trails and roads, planted trees, and restored two dams on the property. Breakheart Reservation's 600-plus acres opened to the public in 1936.

Following the end of the American Civil War in 1865, the Cliftondale section of Saugus became a major producer of tobacco as many of the southern tobacco plantations were destroyed during the war. The Waite & Bond tobacco shop became a major producer of cigars, and the small factory in East Saugus was the nation's largest producer of snuff at the time. Due to its thriving tobacco industry, Saugus was dubbed the "Winston-Salem of the North."

The town's industrial focus remained in East Saugus, and that village continued to attract both residential and industrial overflow of activities from Lynn. Passenger trains ran through Saugus from 1854 until the mid-1950s. The Eastern Railroad, Boston and Maine Railroad, and Grand Junction Railroad all ran on the Saugus Branch Railroad at some point. The Saugus Branch included three stations: Saugus Center, Cliftondale, and Pleasant Hills. There were also two stations right outside of Saugus' borders in Lynn and Revere.

After the opening of the Saugus Branch Railroad in the middle of the 19th century, a gradual westward shift of population began to occur, and residential construction escalated. Manufactories experienced a period of consolidation, but remained the town's chief employer. Saugus' prosperity and growth continued late in the century, and trolley service was in operation in Saugus Center, Cliftondale, and Pleasant Hills by 1887. By the turn of the century, the town's population had grown to over 5,000 people.

⁵ Photo source: http://greenerpasture.com/Places/Details/566

East Saugus had become a nearly indistinguishable extension of Lynn in terms of its industrial focus (primarily shoe production) and its multifamily residential character. Cliftondale, with its tobacco and snuff production continuing, also became a hub of commercial activities within Saugus, largely due to the accessibility afforded by both trolley and train service. Although some residential development now pushed out toward Oaklandvale, and in greater numbers toward North Saugus, it was the southern area of town in which building was most demanded; a plethora of small subdivisions were built to accommodate a pressing need for residential space.

Saugus was once home to the Franklin Park harness racing track, also known as the Old Saugus Race Track or Saugus Race Course. It closed in 1905 after local citizens complained about the questionable patrons that the racetrack attracted. In 1911, the racetrack became an airfield, and the following year General Aviation Corporation purchased the land. The first airmail delivery in New England took place at the airfield on May 30, 1912. General Aviation Corporation named the airfield Atwood Park in honor of their most famous pilot, Harry Atwood, and the site became one of the busiest aviation schools in the country.

Atwood left the school and airfield in June of 1912, and its name changed to Saugus Field. The airfield was in operation for only 15 more years, and many alternative uses for the site were proposed after its closing, including bringing horse racing back, constructing a gasoline storage plant, and making it the site of the New England Patriot's stadium. These plans were abandoned for a number of reasons, largely environmental due to the site's adjacency to Rumney Marsh, and the property has been owned by the Department of Conservation and Recreation since 1990.

By the middle of the 20th century, Saugus' population was nearing 20,000 and the town was establishing itself as more of a suburban community, rather than an economic engine. Following a June 2, 1947 referendum, the Town of Saugus adopted a Plan E form of government, establishing a Town Manager/Representative Town Meeting system of government. Saugus became the first town in Massachusetts to accept this form of government.

Archaeologist Roland W. Robbins began excavating the site of the Saugus Iron Works in 1948. Between his archaeological evidence and other historical documents, the site was reconstructed with funding from the American Iron and Steel Institute. Saugus Iron Works operated as a private museum from 1954 until 1968, when it became a part of the National Park Service system. With this designation, its name officially changed to Saugus Iron Works National Historic Site.

In the 1970s, the Town attempted to transform the area around Route 107 by building an oil refinery and a garbage incineration plant. Although the refinery plans fell through in October 1975, the incineration plant was completed. Wheelabrator Saugus would become the first commercially-successful incineration plant in the United States and is still in operation today.

During the 1990s and 2000s, the Town's Capital Improvement Plan resulted in the construction of a new public safety building, senior center, library, and public works facility. Saugus Town Hall and the Stackpole Field clubhouse were also renovated during

this time. In 2001, the Town finally secured federal funds to dredge the Saugus River, a project that had been in the works for decades. The project, administered by the Army Corps of Engineers, also created two new anchorage areas in the river to serve boats from Penny Landing, the town's public recreational boat launch, and Vitale Park/Lobstermen's Landing.⁶

Population Characteristics

As of the 2010 U.S. Census, the population of Saugus was 26,628 people, a population density of 2,300 people per square mile. The most recent American Community Survey (ACS) 5-Year Estimates from 2010-2015 put the population at a slightly higher figure of 27,620 people. Compared to adjoining communities, Saugus has a smaller population than Lynn and Revere, and a larger population than Wakefield and Lynnfield. Melrose's population is only marginally larger than that of Saugus.

The story of Saugus' population growth is embedded in the town's history. When the town was incorporated in 1815, the population was under 1,000 people. By 1900, the population had grown fivefold, due largely to a thriving industrial sector powered by the Saugus River. The largest population growth at any one time in Saugus occurred between 1900 and 1910 when the population increased from 5,084 people to 8,047 people, a growth of over 58%.

In the years between 1910 and 1930, Saugus continued to grow quickly, with a population growth rate of about 35% per decade. In the following decades, this growth slowed, and the first decrease in population occurred between 1970 and 1980. In the decades since, the population has grown only slightly, at a rate of about 2% to 3% a year. Figure 2 captures this change in population in Saugus over the period of 1910 to 2010. Like many communities in the Boston metropolitan area, Saugus is almost entirely built-out, a factor that has contributed to stagnating population growth in recent decades.



Figure 2: Population of Saugus, 1910-2010 (U.S. Census)

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⁶ John Laidler (2001), "River Dredged to Improve Navigation, Berthing Areas," Boston Globe

For the purposes of this Open Space and Recreation Plan, it is important to understand Saugus' population via the needs of different age groups. This is because the open space and recreational needs of children and young adults are not the same as those of teenagers, adults, or the elderly. While open space and recreational facilities should be available to residents of all ages, this plan will identify enhanced opportunities, for both passive and active recreational facilities, for specific age groups. For example, it may be relevant to suggest building a pocket park or improving a park in a neighborhood where there are a number of younger children.

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 projections, the population of Saugus will increase to 27,459 people by 2020, and to 28,545 by 2030, an increase of approximately 7% based on 2010 values. However, American Community Survey 5-Year Estimates from 2015 suggest that the town's population has already exceeded its 2020 projection. It is likely that Saugus will reach or exceed MAPC projections for 2030.

Over the years, population growth in Saugus has not been equally distributed amongst age cohorts, as shown in Figure 3. In general, the population aged between 1990 and 2010. Between 1990 and 2010, the share of children 19 years old and younger decreased slightly from 23% to 21% of the population. Meanwhile, those aged 60 and older increased from 21% to 24%. Going forward to 2030, this trend is expected to continue, with the share of Saugus' population aged 19 and younger declining from 21% to 18%, and the share of those 60 and older increasing from 24% to 31%.

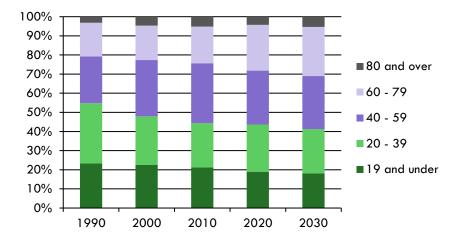


Figure 3: Population Projections by Age (U.S. Census and MAPC SR Projections)

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Environmental Justice Populations Environmental Justice Criteria, by Block Group Minority English isolation Minority and English language isolation Income and English language isolation Minority, Income and English language isolation ■ Town Hall Open Space

Figure 4: Environmental Justice Populations Map

Unlike neighboring Lynn and Revere, Saugus is not as racially or ethnically diverse. According to the 2010 Census, about 90% of Saugus residents identify as White alone. However, that percentage has decreased significantly from 2000 when the community was 97% Caucasian. Members of minority groups have increased since 2000, however remain small in number. About 4% of the 2010 population identifies at Hispanic, 3% as Asian, 2% as African American, 1% as multiracial, and less than 1% as another race.

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 U.S. 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.

Saugus has one block group that meets EJ criteria, and it is due to an annual median household income equal to or less than 65% of the statewide median. The block group, shown in Figure 4, has a median household income of \$29,135 annually, which is less than half of the statewide median. The median household income for all of Saugus is \$77,371 per year, as of the ACS 2015 5-Year Estimates. While a variety of factors may attribute to the significantly lower median household income of this block group, a likely reason is the presence of several Saugus Housing Authority (SHA) complexes: Heritage Heights, Laurel Gardens, and Laurel Towers. To be eligible for a unit in one of SHA's properties, applicants must have an annual household income under \$46,300 for one person and \$52,950 for two people. They also must be 60 years of age or older, disabled, and/or handicapped at the time they apply for housing.

The number of households in Saugus has consistently increased in recent decades (see Figure 5). As of the 2010 Census, Saugus was home to 10,318 households, a 3% increase (343 households) from 2000. That is on top of a 7% (618 households) increase between 1990 and 2000. Going forward, the number of households in Saugus is projected to increase to 11,845 in 2030, based on changing trends in deaths, births, and migrations. This amounts to an additional 1,527 households in town.

Census data over the last few decades reveals that households in Saugus are growing at a faster rate than population; between 1990 and 2010, the number of households grew by 10% while the population grew by only 4%. A major cause for this is a decrease in average household size. In 2010, average household size in Saugus was 2.55 people per household, which was down from 2.59 people in 2000. Average household size is projected to continue to fall in the future, to 2.45 in 2020 and then to 2.38 in 2030.

The declining household size in Saugus is consistent with trends seen throughout Greater Boston and the rest of the Commonwealth. Factors contributing to this decline include the decision to have fewer children and later in life, and an aging population that is living longer as empty nesters. These smaller households often look for housing that differs from the traditional single-family detached house. If the additional demand for housing is met through smart growth principles that encourage high density, walkable neighborhoods, it will be easier to safeguard open space and recreation land from future development.

12,500 11,845 12,000 11,500 11,000 11,063 10,500 9,975 10,000 10,318 9,357 9,500 9,000 8,500 8,000 1990 2000 2010 2020 2030

Figure 5: Saugus Households and Projections (U.S. Census and MAPC SR Projections)

Of Saugus' 10,318 households, the vast majority (69%) are family households, those with two or more related persons living together. The remainder is non-families, households with one person or more than one unrelated persons living together. As shown in Figure 6, Saugus' rate of family households is among the highest compared to surrounding communities, where it ranges from 78% in Lynnfield to 54% in Salem. It is also higher than the rate in the rest of the MAPC region (60%) and Massachusetts (63%). However, most of these families are married couples and only about a quarter of Saugus' total households have children under 18 years old.

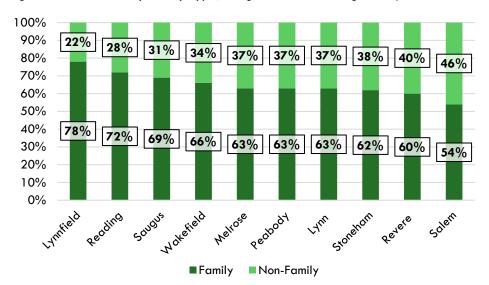
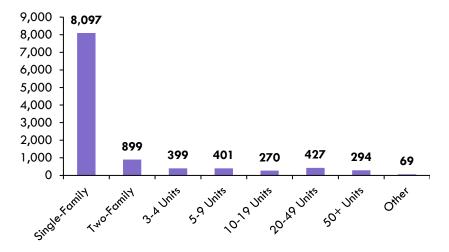


Figure 6: Households by Family Type, Saugus and Select Neighbors (U.S. Census 2010)

The dominant housing type currently seen in Saugus is the single-family house. This particularly land intensive type of housing makes up 75% of all the housing units in town. Two-family homes account for 8% of the housing stock, with the rest of the town's housing units within multifamily buildings (see Figure 7). While Saugus' neighbors also have housing

stocks comprised primarily of single-family homes, the town's rate is among the highest. The town also has one of the lowest rates of units in multifamily buildings, and the lowest rate of larger developments of 50-plus units (only 3% of total housing units).

Figure 7: Housing Units by Type (ACS 2014 5-Year Update)



Housing in Saugus was built intermittently throughout the 20th century. Only about 30% of housing units were built before 1940. Less than 10% of units have been added to the housing stock since 2000, indicating that unless the rate of new construction increases in the next few years, development will be slower compared to earlier 20-year periods.⁷

Compared to some of its neighbors, Saugus actually issued a large number of residential permits between 2000 and 2014 (shown in Figure 8). According to the Census Building Permit Survey, Saugus issued 1,621 residential permits for new housing units between these years. Only one of the town's neighbors, Peabody, permitted more units during this period. While three-quarters of these permits were for units in multifamily developments, a high number of single-family projects were also permitted. Only Lynn and Wakefield issued more single-family permits than the Town of Saugus.⁸

In terms of housing tenure, the majority of Saugus residents own their own home: 77% of housing units are owner-occupied. This rate is quite high compared to Saugus' neighbors, with the exception of Lynnfield and Reading where 87% and 80% of housing units are owner-occupied, respectively. While there may be a preference for homeownership in Saugus, it is also likely that there is a limited supply of rental opportunities in the town. According to 2015 data from the Warren Group, the median sale price of single-family homes in Saugus is \$335,000. Condominiums, which are usually less costly, have a median sale price nearly as high at \$323,750. Zillow listings from 2015 indicate the median rental price at \$2,080 a month, lower than all surrounding communities with the exception of Salem and Peabody.

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⁷ Saugus Housing Production Plan (2016)

⁸ Ibid

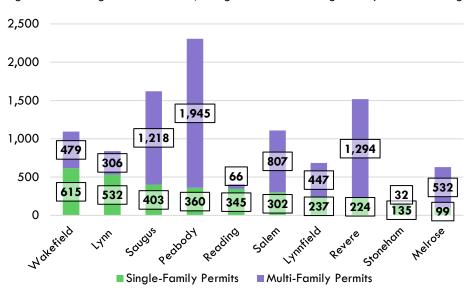


Figure 8: Housing Units Permitted, Saugus and Select Neighbors (Census Building Permit Survey)

According to the Massachusetts Executive Office of Labor and Workforce Development (EOLWD), Saugus had an average annual labor force of 15,683 people in 2015. Most people who live in Saugus do not also work in Saugus; about one in five works in town while another 2% works from home. Those who do not work in town most often commute to Boston, Lynn, or Peabody for their jobs. About 80% of Saugus residents drive alone to work, 8% carpool, and 8% take public transportation.

Employment counts from the EOLWD suggest that the average number of jobs in Saugus throughout the course of 2015 was 11,011. The majority of jobs in Saugus are in the Retail Trade and Accommodation and Food Services industries at establishments along the Route 1 commercial corridor. Together, these two industries make up over half of all the jobs in town. The average annual salary in Saugus was \$32,240 in 2015, mostly due to the presence of low-paying jobs in these industries.

Growth and Development Patterns

Patterns and Trends

Though Saugus was originally settled as an agricultural community, much of the town's historical growth and development was directly related to the Saugus River. The process of industrialization in Saugus began along the river corridor with the establishment of the Saugus Iron Works and other industries requiring the use of waterpower. Small boats, which transported materials to and from the Iron Works, could navigate the river up to the Iron Works harbor and dock during high tide. After the Iron Works opened in the 1640s, the Saugus River attracted many different industries such as gristmills, chocolate mills, wool and flannel mills, and a tannery. The original dam for Prankers Pond, built in 1642, supplied waterpower for the Iron Works; it was enlarged in 1846 by Edward Pranker to power his mills.

Because the Saugus River is relatively small, its utility for industry diminished with the decreased need for water to power the equipment used in the town's factories. Further, the use of the river for transportation via boat dwindled with the emergence of other transportation modes, specifically trains and later automobiles. The increasing use of Route 1, with its quick access to Boston and the North Shore, turned the roadway into a commercial and business corridor that effectively divided the town into the areas east and west of Route 1. Residential neighborhoods primarily filled in the rest of the developable areas in Saugus.

Today, Saugus is composed of several neighborhood villages, including:

- Blacksmith Village
- Bristow
- Cliftondale
- East Saugus
- Golden Hills
- Hammersmith Village
- Lynnhurst
- North Saugus
- Oaklandvale
- Pleasant Hills
- Saugus Center

Of these, the majority of the town's population resides in Cliftondale, East Saugus, Lynnhurst, Pleasant Hills, and Saugus Center; Oaklandvale and North Saugus are much less densely populated.

Both Figure 9 and Figure 10 depict land use by parcel in Saugus as classified by tax assessment purposes. Over a third of Saugus is comprised of residential land uses, the vast majority of which are single-family homes. While two- and three-family homes and multifamily buildings are scattered throughout town, their numbers are few in comparison. Other residential uses in town include condominiums, multiple houses on one property, mobile homes, and accessory dwellings.

Approximately 5% of Saugus (over 300 acres) is considered vacant residential land. The majority of this vacant land is considered "developable" or "potentially developable" by the Saugus Assessor; a much smaller percent of this vacant land is considered "undevelopable." However, only about 112 developable acres are free of constraints like wetlands, flood zones, and species habitats. 9 While this represents complications for development purposes, it is also an opportunity to consider preserving additional land for conservation and recreation purposes.

Over 17% of land in Saugus is commercial or industrial. The industrial land is mainly concentrated in western Saugus and makes up about 4% of total land area in the town. More than twice this amount of land is used for commercial and retail purposes, and it forms a well-defined corridor along Route 1. Less than 1% of land in town is used for

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⁹ Saugus Housing Production Plan (2016)

offices while just over 1% is mixed use, such as a combination of residential and commercial uses in one building or two different types of commercial uses in one building, i.e. an office building with ground floor retail. 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 developable land is free of constraints and should also be considered for its potential as conservation or recreation land where appropriate.

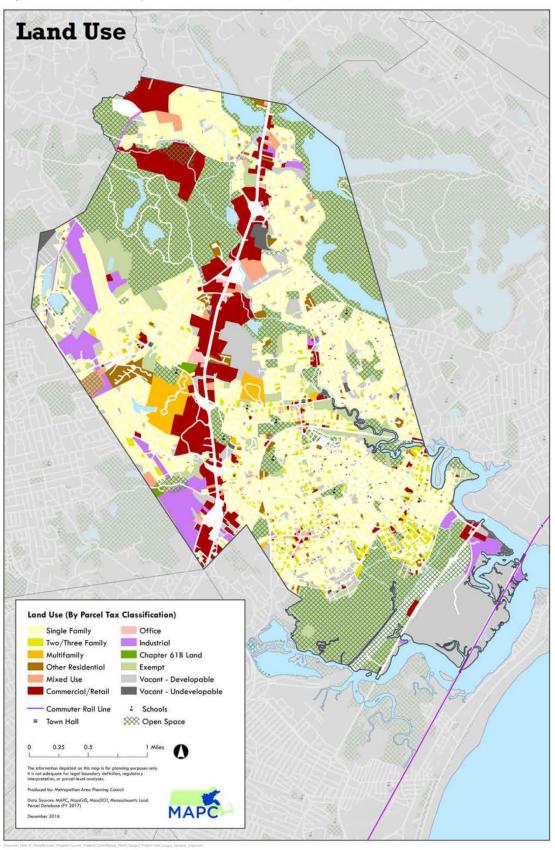
Figure 9: Land Use (Massachusetts Land Parcel Database FY 2017)

Property Type	Square Feet	Acres	% Total
Residential	119,350,144.25	2739.90	37.4%
Single Family	88,452,361.81	2030.59	27.7%
Two/Three Family	6,539,086.98	150.12	2.0%
Multifamily	5,254,585.52	120.63	1.6%
Other Residential	4,559,908.33	104.68	1.4%
Residential Vacant - Developable	13,410,413.64	307.86	4.2%
Residential Vacant - Undevelopable	1,133,787.97	26.03	0.4%
Commercial/Industrial	54,752,951.37	1256.95	17.2%
Commercial/Retail	25,518,406.66	585.82	8.0%
Office	1,206,495.02	27.70	0.4%
Industrial	12,312,920.36	282.67	3.9%
Commercial/Industrial Vacant - Developable	14,617,248.60	335.57	4.6%
Commercial/Industrial Vacant - Undevelopable	1,097,880.73	25.20	0.3%
Mixed Use	4,044,439.31	92.85	1.3%
Exempt	96,204,044.90	2208.54	30.2%
Public	91,974,506.44	2111.44	28.8%
Institutional	4,229,538.46	97.10	1.3%
Other	44,655,676.34	1025.15	14.0%
Chapter 61B	462,063.83	10.61	0.1%
Right-of-Ways	44,193,612.50	1014.55	13.9%
Total	319,007,256.15	7323.40	100.0%

Almost another third of land in Saugus 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 roughly 1% of total land area. The vast majority of exempt land in Saugus consists of the town's parks and open spaces, of which the Town of Saugus and the Commonwealth of Massachusetts are the primary landholders. Other notable parcels of publicly-owned exempt land in Saugus include the Town's municipal facilities and schools.

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Figure 10: Land Use Map



A right-of-way is a type of easement granted over land for transportation or public utility purposes. About 14% of Saugus' total land area is right-of-ways, areas left white in Figure 10, which are primarily roads along with their curbs and sidewalks. Other right-of-ways in town include where the Commuter Rail crosses through the southern tip of Saugus and the Northern Strand Community Trail, a former railroad track turned bicycle and pedestrian path. These areas are generally paved, impervious surfaces that deserve attention in terms of their impact on stormwater runoff and other environmental factors.

Massachusetts' Chapter 61 programs give preferential tax treatment to landowners who maintain their properties as open space for the purposes of timber production, agriculture, or recreation. Chapter 61B specifically applies to recreational land; there are three parcels in this program in town owned by the Melrose Fish and Game Club and Malden Anglers Association. Only a small fraction of land in town meets this tax classification.

Infrastructure

Transportation Systems

In many ways, the Saugus street network is typical of Boston and metropolitan area. Generally, the traffic volumes carried by most roads in Saugus greatly exceed their design capacity. The result is considerable congestion, particularly at peak times and at primary intersections. This is likely influenced by the fact that Saugus is a very cardependent community; according to ACS 2015 5-Year Estimates, 87% of Saugus residents drive to work compared to 79% of overall Massachusetts residents. An elaborate Pavement Management Plan (PMP) and traffic signal maintenance program by the Department of Public Works has ameliorated some of the traffic issues in town.

The Saugus road network revolves around two major north-south highways: Routes 1 and 107. U.S. Route 1is a major thoroughfare that bisects Saugus on its way from Rhode Island and Boston to New Hampshire. Route 107 is a Massachusetts state road and has less capacity. It runs through Saugus along the coast, connecting Boston with the Salem and Beverly areas. Land uses along Route 1 are strip commercial, while those along Route 107 are a mixture of commercial, industrial, and open space. The majority of congestion along these roadways is through traffic generated from points outside of Saugus.

Walnut Street (also known as Route 129) runs from east to west in Saugus, crosses over Route 1, and provides access to Lynn and Lynnfield. This is a widely used and often congested street in the community. A number of through streets, such as Main and Essex Streets, reach capacity during peak periods due to heavy traffic volumes exceeding design capacity.

Compared to some of its neighbors, Saugus is not well-served by public transportation. While the Newburyport/Rockport Commuter Rail Line crosses through southern Saugus on its way from Chelsea to Lynn, it does not stop in the town. The nearest access to the Commuter Rail is the Haverhill/Reading Line at Melrose Highlands, Greenwood, or Wakefield, or the Newburyport/Rockport Line at Broad Street in Lynn. There is access to the Blue Line at Wonderland Station in Revere and the Orange Line at Oak Grove and Malden Station, both in Malden. Transit riders must rely on buses that travel to stations in these communities. The Ride, a shared-ride door-to-door service operated by the MBTA in

60 cities and towns, is also available to Saugus' seniors and residents with disabilities. Greater Lynn Senior Services (GLSS) also operates a shuttle service called The Ride.

In total, ten Massachusetts Bay Transportation Authority (MBTA) bus routes serve Saugus. Five of these function primarily as express services between Boston and points north, and terminate in Salem. Access to these routes is along Route 107, which is well east of Saugus' residential areas and is therefore inconvenient to residents. Routes 424 and 450 provide service between Salem and Haymarket, Routes 424W and 450W go to Wonderland Station, and Route 456 provides service between Salem and Lynn.

The other five bus lines provide more comprehensive service to the town. Route 426 provides service between Lynn and Haymarket (or Wonderland on Route 426W) via Cliftondale. Route 428 provides limited service between Wakefield and Haymarket via Main Street/Winter Street/Lincoln Avenue in Saugus, but there are only three morning and three evening runs. Route 429 travels from Northgate Shopping Center up to Saugus Plaza and then to Central Square in Lynn. Route 430 starts in Saugus Center, loops down to Cliftondale, and provides access to the Malden Center Station.

Only about 1% of Saugus residents walk to work, though about a fifth of residents work in town. While others may walk shorter distances for errands and other activities, the town is not particularly walkable. Out of a scale of 0 to 100, Saugus has a Walk Score of 39. This score is quite a bit lower than neighboring communities like Lynn and Melrose, which have Walk Scores of 67 and 56, respectively. 10 The Town of Saugus has sidewalks on a number of its streets, especially busier roads like Route 1, Lynn Fells Parkway, Main Street, and Water Street. However, continuous sidewalks are absent from many of the residential areas of the town, such as in Cliftondale south of Clifton Avenue.

There is a concerted effort on the part of the Town to improve existing sidewalks and extend the system. In recent years, the Department of Public Works has repaired and replaced a number of sidewalks, and the DPW Director continues to prioritize sidewalks that need repair or replacement. One of the larger sidewalk improvement projects in recent years has been the installation of concrete sidewalks with granite curbing on the easterly side of Lincoln Avenue between Endicott Street and Ballard Street. A portion of the sidewalk has been constructed and its completion is a goal of the Saugus Sidewalk Committee over the next few years. Saugus allocates about a fifth of its Chapter 90 funding from the Massachusetts Department of Transportation for sidewalk improvements.¹¹

Saugus it contains a large stretch of the Northern Strand Community Trail, a shared-use path that also goes through Revere, Malden, and Everett. The biking and walking trail is a part of a regional effort organized by the nonprofit Bike to the Sea, whose vision is to create a trail free of cars to the beaches in Revere, Lynn, and Nahant. As of now, the trail, which is on the former rail bed of the Saugus Branch Railroad, ends at Saugus' border with Lynn. There is one on-road bike lane in Saugus that goes in both directions on Lynn Fells Parkway between Forest and Main Streets.

¹⁰ Walk Score, www.walkscore.com

¹¹ Mike Gaffney (2015), "Saugus Sidewalk Projects Prioritized," Wicked Local, http://saugus.wickedlocal.com/article/20150123/NEWS/150129489

Lincoln Avenue Sidewalk Construction¹²





Northern Strand Community Trail in Saugus¹³



Water and Sewer

Since 1946, the Town of Saugus has been part of the water supply network now operated by the Massachusetts Water Resources Authority (MWRA). Over 40 other municipalities in the Boston metropolitan area receive drinking water from the MWRA, which primarily receives water from the Quabbin and Wachusett in western and central Massachusetts. Water is supplied to the town through seven metered connections, and the town has about 150 miles of piping.

 $^{^{12}}$ Photo source: http://www.msonewsports.com/north-shore-today-6/

¹³ Photo source: http://www.bikeforums.net/northeast/518426-metro-boston-good-ride-today-192.html

More than 95% of the buildings in Saugus receive water from the Town. Average daily flow is approximately three million gallons and peak day flow is approximately six million gallons. As of 2014, the town averaged approximately 2.863 million gallons per day. Some improvements to the water distribution system are needed as some areas of town do not meet global International Organization for Standardization (ISO) standards.

Saugus does not receive sewer service from the MWRA. Approximately 95% of the town's population is served by Saugus' sewer system. A significant number of the remaining homes are adjacent to, but not connected to sewer lines. These property owners have continued to use alternative systems such as septic systems. The percentage of the population served by Saugus' sewer system may increase as these properties connect to existing lines.

The Town's system consists of seven pumping stations and lines that feed into the East Saugus Pumping Station. From this station, sewage is pumped into the Lynn system where it receives primary and secondary treatment before discharge; 11 lift stations pump wastewater through town to the Lynn Wastewater Treatment Facility (LWWTF). An intermunicipal agreement (IMA) with the City of Lynn allows Saugus to discharge up to 17 million gallons per day to the LWWTF. Besides treating the sewage from Lynn and Saugus, this regional wastewater treatment plant also serves Swampscott and Nahant.

There are some sewer capacity issues in Saugus. On occasion, Saugus has exceeded its limit into the Lynn system. The town has also experienced sanitary sewer overflows (SSOs). As a result, the town is currently in the last phase of an Administrative Consent Order (ACO) with the Massachusetts Department of Environmental Protection (MassDEP) to reduce or eliminate these SSOs. The required upgrades have been made and water quality testing has begun.

Long-Term Development Patterns

The Metropolitan Area Planning Council categorizes Saugus as a Mature Suburban Town. Saugus is comprised of mid-20th century neighborhoods of owner-occupied, single-family homes on small lots, interspersed with commercial districts and high-density residential developments. It contains scattered parcels of vacant developable land, but continues to add housing through infill and redevelopment since it is mostly built-out. Its main commercial development center is a four-mile stretch of U.S. Route 1.

As indicated in the Population Characteristics section, the population of Saugus is expected to increase by 2020, with further increases by 2030. With this increase in population combined with a trend towards smaller household sizes, MAPC projects an increase of 1,527 households in Saugus by 2030, a 15% growth over 2010 values. While some of the new residential development will need to be accommodated by building on vacant land, infill and redevelopment are the best options for preventing the loss of open land and avoiding the constraints that exist on much of the vacant land.

Though currently three-quarters of housing units in Saugus are single-family homes, meeting the projected housing demand in town will require multifamily development. The average parcel size of vacant developable land in Saugus that is free of environmental constraints is only about half an acre, limiting new development opportunities for larger-

scale multifamily or mixed-use projects. 14 As such, redevelopment of existing parcels will be increasingly important and will also ease the burden on existing open space. Since 2000, the majority of housing units permitted by the Town of Saugus have been for multifamily developments, though a high number of single-family projects were also permitted (see Figure 8).

The minimum lot size for new development across Saugus is 20,000 square feet. Instead of encouraging open space preservation, this regulation has resulted in the production of larger homes that require higher sale prices in order to justify the cost of acquiring such a large site. It also prevents the development of "postage stamp lots" that are 5,000 square feet or fewer, the kind of development that defines Saugus' older residential neighborhoods and has allowed the community to retain its stock of affordable housing.¹⁵

Saugus' Zoning Bylaw does allow for cluster-style residential development, which is more conducive to open space preservation than other forms of single-family development. For this type of development, the tract of land must be at least five acres and served by the public water and sewer systems. At least 30% of the site must be set aside as common land and restricted to open space recreational uses. If the common land exceeds 60% of the total and/or at least 15% of the lots are affordable housing, the limit on building lots may be increased by a bonus of up to 15% (though at the discretion of the Planning Board). 16 The ability to construct cluster-style development in Saugus is constrained by the limited number of tracts of vacant land of five acres or more.

The Town of Saugus has nine base zoning districts: four residential districts, three business districts, and two industrial districts. As shown in Figure 11, the majority of the town falls within a residential district. Though the business districts are somewhat scattered throughout town, Saugus' main business district is along Route 1. Saugus' industrial districts are mainly along the Saugus River and the Rumney Marsh area in East Saugus. The Business Highway Sustainable Development Zoning District along the Route 1 Corridor was adopted in 2015 and seeks to foster mixed use sustainable development centers including new housing.

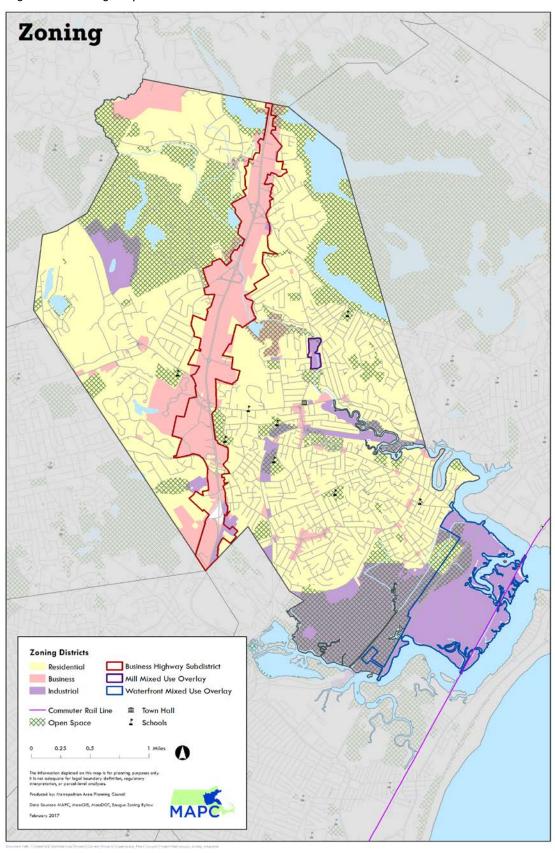
In addition to its base districts, the Town of Saugus also has two overlay districts. Saugus adopted a Waterfront Mixed Use Overlay District (WMUOD) in 2014 for the southeast area of town, mainly on the east side of Route 107. The vision of the WMUOD is to "encourage economic growth and support water dependent and water related uses, specifically including the fishing industry, as well as mixed use developments that are both commercially practical and aesthetically pleasing and can deliver many benefits including a vibrant, sustainable community." ¹⁷ Due to the area's susceptibility to the future impacts of global climate change, the overlay district also aims to attract development that is resilient to impacts such as increased flooding and sea level rise.

¹⁴ Saugus Housing Production Plan (2016)

¹⁶ Saugus Housing Production Plan (2016)

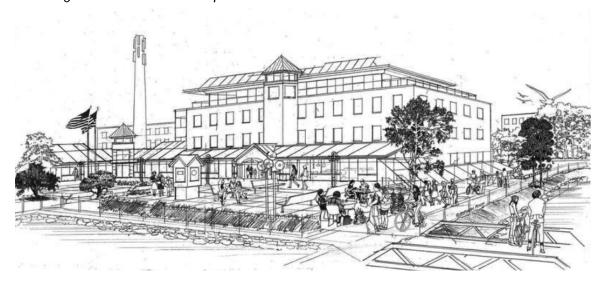
¹⁷ Mike Gaffney (2014), "Waterfront Overlay District Approved in Saugus," Wicked Local, http://saugus.wickedlocal.com/article/20140514/News/140518590

Figure 11: Zoning Map



The Historic Mills Mixed Use Overlay District, adopted in 2014, aims to encourage adaptive reuse of historic mill structures that would both preserve the existing buildings and enables mixed-use development.

Rendering of Historic Mill Redevelopment¹⁸



Despite adopted amendments, Saugus' Zoning Bylaw has not been updated since 1999. In addition, neither the bylaw nor zoning map has been digitized, though the Town is working to address these challenges. As a result, the base zoning districts shown in Figure 11 are just approximations. Since MAPC worked with the Town of Saugus to create its overlay districts, the boundaries of those areas have been accurately digitized.

Saugus has a number of large projects in various stages of the development pipeline. Currently under construction is the Stonecliffe Heights Single Family Community, a 46-home subdivision in the Vinegar Hill area of town. This subdivision, built in a cluster-style, will preserve the historic hilltop of Vinegar Hill and its sweeping views of Saugus and the Boston skyline. Procopio Construction is managing all aspects of the development of Stonecliffe Heights, from the land-clearing to sales phases. ¹⁹

Construction has also begun for Essex Landing, a mixed-use development project heralded as the "renaissance of Route 1." The development will include 255 one-bedroom apartments, 26 of which will be designated as affordable, aimed at young professionals and empty-nesters. Essex Landing will also include two hotels and three restaurants, one of which will be a Kane's Donuts, its second location in Saugus. Developers of the project have indicated that they will incorporate bicycle and pedestrian infrastructure as much as possible. They are also working to add the site to MBTA bus routes. This project is on the former site of the Route 1 Miniature Golf & Batting Cages. ²⁰

 $^{^{18}}$ Rendering by Steven Rich, Photo Source: http://saugus.wickedlocal.com/x1465123165/Saugus-draft-historic-mills-bylaw-unveiled

 ^{19 &}quot;New Subdivision Construction Massachusetts," Procopio Construction,
 http://www.procopioconstruction.com/subdivision_construction_north_shore_massachusetts.php
 20 Jeannette Hinkle (2016), "Essex Landing Development Approved in Saugus," Wicked Local,
 http://saugus.wickedlocal.com/news/20160819/essex-landing-development-approved-in-saugus

Another major mixed-use development is set to break ground soon along the Route 1 corridor, and it is one of the first projects made possible under the new Business Highway Sustainable Development Zoning District. The Saugus Planning Board approved a proposal by AvalonBay Communities, Inc. in late March for 280 apartment units and 24,000 square feet of retail space on the 13.9-acre former Hilltop Steak House property. The residential units are two-bedroom, one-bedroom, and studio apartments and about 10% of the apartments will be designated as affordable for those making at or below 80% of the area median income.²¹

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²¹ Mike Gaffney (2017), "Mixed-Use Development Proposed for Hilltop Steak House Site in Saugus," Wicked Local, http://saugus.wickedlocal.com/news/20170118/mixed-use-development-proposed-for-hilltop-steak-house-site-in-saugus

Section 4: Environmental Inventory & Analysis

Geology, Soils, and Topography

Saugus is located within the Boston Lowland Division of the Boston Basin. The basin is a depression, now partly filled by later Paleozoic rocks. The depression was formed by a down-dropped block of volcanic and metamorphic bedrock. The rim is composed of the same bedrock and can be seen in Saugus (northwest of Lincoln Avenue) and Lynn (north of Washington, Walnut and Holyoke Streets). After the formation of the depression, silt and clay sediments filled portions of the basin and were consolidated into Cambridge Argillite formations; this argillite is not exposed, but forms a basement between 60 to 200 feet below the surface. On top of the argillite are the materials from continental glaciation, the last major geological event influencing the region.

The last glaciation occurred during the Pleistocene, which ended about 10,000 years ago. Ice appears to have stripped soils and weathered materials from the surface of the Cambridge Argillite formation, but then redeposited heterogeneous materials (called "till") sometimes in relatively thin strata as well as in more than 100 drumlins in the Basin. There is also evidence that glacial lakes or a higher sea level covered parts of the Basin, since lacustrine or marine clays can be found atop of glacial till.

The net result of the original geological formations and the subsequent glaciation was the creation of a lowland section that was mostly salt marshes and alluvial deposits, and an upland section of more broken topography that has exposed bedrock (see Figure 12). The lowland area has elevations mostly below 50 feet, while the upland has elevations that are mostly greater than 100 feet with some hills approaching 300 feet. It is apparent that the Saugus River channel gradient is relatively slight and the original drainage basin probably had more extensive wetland areas.

Saugus is characterized by a variety of topographic features. The southeasterly area of town contains approximately 850 acres of flat, tidal marshland, which extends into the interior of the town in a relatively narrow band along the Saugus River. The topography of the remainder of the town is a combination of ridges, hills, and intermediate low areas, many of which contain streams, drainage-ways or wetlands. A substantial number of the ridges and hilltops in Saugus exhibit rock outcrops. Elevations of the town vary from sea level in the area of the Saugus Marshes to approximately 245 feet above sea level in the Golden Hills section of town.

The following information on Saugus' 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.²²

²² USDA NRCS Soil Survey (2016), https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

Soils & Surficial Geology Surficial Geology Sand and Gravel Open Space Till or Bedrock Lakes and Ponds Fine-Grained Deposit Commuter Rail Line . Schools **Farmland Soils** Prime Soils Statewide/Unique Importance

Figure 12: Soils and Surficial Geology Map

According to the USDA NRCS's Soil Survey, the dominant soil type in Saugus is the Chatfield-Hollis-Rock outcrop complex; more than two-fifths of the town consists of this soil type. The Chatfield-Hollis-Rock outcrop complex is an extremely stony soil type usually found on ridges and hills. These soils are well drained to somewhat excessively drained and have a high runoff class due to their rocky and steep nature. Most of Saugus' upland areas such as Breakheart Reservation, Vinegar Hill, the Lynn watershed area, and Golden Hills consist of Chatfield-Hollis-Rock outcrop complex.

Merrimac-Urban land complex is the next most common soil type in Saugus and it is found in parts of the Saugus Center, Pleasant Hills, and Cliftondale neighborhoods. These soils are mostly level and are found on outwash plains, outwash terraces, moraines, kames, eskers; they were deposited by river that emerged from glaciers. They are somewhat excessively drained and free of rock outcroppings and boulders. The soil has good permeability with internal drainage and a low runoff class.

The tidal marshland of Rumney Marsh consists mostly of Ipswich and Westbrook mucky peats. This soil type, which is very frequently flooded and very poorly drained, is also found in areas of the Saugus River floodplain. These areas are covered by a few inches of water at high tide and exposed at low tide. Ipswich and Westbrook mucky peats are farmland soils of unique importance due to their ability to produce high-value food and fiber crops. Unique farmland is not based on national criteria; rather, it commonly is in areas where there is a special microclimate.²³

A few other small areas of Saugus contain farmland of unique importance, while others contain farmland of state importance or are prime farmland (shown in Figure 12). The U.S. Department of Agriculture defines prime farmland as "land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses." Soil must meet national criteria to receive this designation. Farmland of statewide importance does not meet the criteria for prime or unique farmland, but meets the criteria set by the State of Massachusetts. Often it nearly meets the requirements for prime farmland and can produce economically high yields of crops when managed well.²⁴

The area of Saugus south of Route 107, which contains the Wheelabrator energy-fromwaste facility and ash monofill, is comprised of Udorthents, refuse substratum. According to the USDA NRCS Soil Survey, the parent material of Udorthents consists of "Made land over loose sandy and gravelly glaciofluvial deposits derived from granite and gneiss and/or friable coarse-loamy basal till derived from granite and gneiss." In the case of Udorthents, refuse substratum, these areas are used for refuse disposal such as partly decomposed or burned paper, plastic, metal, glass, rubble, and organic debris.

Other scattered areas of Saugus are comprised of Udorthents, smoothed. These are areas where soil material has been excavated and areas in which this material has been deposited. The original soil material in these locations ranges from nearly level to very steep, and is generally excessively drained to moderately well drained.

 $^{^{23}}$ "Prime Farmland Definitions," USDA NRCS, $https://www.nrcs.usda.gov/wps/portal/nrcs/detail/pr/soils/?cid=nrcs141p2_037285 \\ ^{24} \textit{Ibid}$

About 8% of Saugus' land area is what the USDA NRCS Soil Survey calls "urban land." This refers to excavated, filled, and made land that lacks a natural soil profile due to human activities. Urban land exists along the town's Route 1 corridor and in filled areas northeast of Ballard Street along the Saugus River.

Most of the Lynnhurst neighborhood, along with a few other scattered areas around Saugus, is comprised of Hollis-Urban land-Rock outcrop complex. These soils are mainly found on ridges and hills with slopes of 8 to 15 percent. This mixture of rock outcrop, fill land, and fine soil is generally well drained with high runoff potential.

The geology, topography, and soils that form Saugus' base have all impacted the way in which development—or rather a lack of development—in the town has occurred. The combination of steep elevations and extremely stony soils in various large tracts of area throughout Saugus made development difficult. As a result, land such as Breakheart Reservation, the Lynn watershed area, and Vinegar Hill were left largely untouched from development and have instead been utilized for recreation, conservation, and water protection purposes.

Appleton's Pulpit Rock

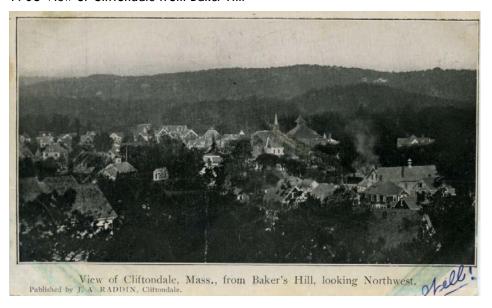


Saugus' marshland is another unique environment that lacks the soil profile and surficial geology for development. While some of the salt marsh was filled in with made land, as has been done all along the Greater Boston coastline, the majority has been preserved in its natural state. This has been very important for a variety of reasons. Not only do tidal marshlands contain many important and rare plant and animal species, but they are also a crucial force in flood protection. When they are removed and filled with made land, these coastal areas become very susceptible to flood inundation.

Landscape Character

There are several locations throughout Saugus that reflect the town's special character and are also of particular scenic interest. One such area is Baker Hill in the Cliftondale section of Saugus. From the top of the hill are excellent views of Rumney Marsh, the Boston skyline, and the ocean off Revere Beach. The present residential development of the hill leaves few places from which to enjoy these views, although the creation of a public overlook may be a possibility.

1905 View of Cliftondale from Baker Hill²⁵



Vinegar Hill is almost 25 acres in size and important to Saugus as a historical, cultural, and natural resource area. The area has an unusual topography that is characterized by vegetated wetlands and a mixed terrain. Outcroppings, wooded glens, tidal pools, vernal pools, and breathtaking views of Saugus and beyond truly make the area unique. There have been numerous species sightings at Vinegar Hill, including woodcocks, red-tail hawks, cardinals, deer, wildcats, and foxes.

Along with abundant natural resources and wildlife, Vinegar Hill also has a long history of folklore related to pirates. Pirate activity began around the same time that the Saugus Iron Works began producing wares in the 1600s. It is said that four pirates took up residence at Pirates' Glen in Vinegar Hill. This site provided a perfect hideout because the area below was secluded, yet the view of the mouth of the Saugus River was clear. Three of these pirates were eventually captured and returned to England while one, Thomas Veal, is said to have died in Dungeon Rock in Lynn Woods.

Several areas along the Saugus River provide distinctive and scenic character. One of those areas runs from the Bacon property to Jasper Street, areas of which can be seen from the hills of Winter Street and Hamilton Street, as well as from across the river at

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 $^{^{25}}$ Photo Source: http://www.ebay.com/itm/Cliftondale-MA-Mass-Saugus-view-Bakers-Hill-looking-Northwest-1905-/272583061320?rmvSB=true

Stocker Playground. Another scenic location is at the Saugus Iron Works National Historic Site where the Saugus River ends its freshwater flow from the north and begins its meandering tidal run. Another beautiful, but mostly unknown, view of the river is right at the overpass area at the end of the Lynn Fells Parkway where the river flows past steep cliffs. Earlier prospects of development in that area did not come to fruition, and it is an area with a unique character worth preserving.

Water Resources

Saugus has a number of water resources and a varied natural landscape that includes brooks, ponds, wetlands, and wildlife habitats. The Saugus River bisects the town as it flows from Wakefield to the Rumney Marsh estuary and Lynn Harbor. A number of smaller tributaries break off from the Saugus River and feed into lakes and ponds throughout town. See Figure 13 for a map of all of Saugus' water resources.

Watersheds

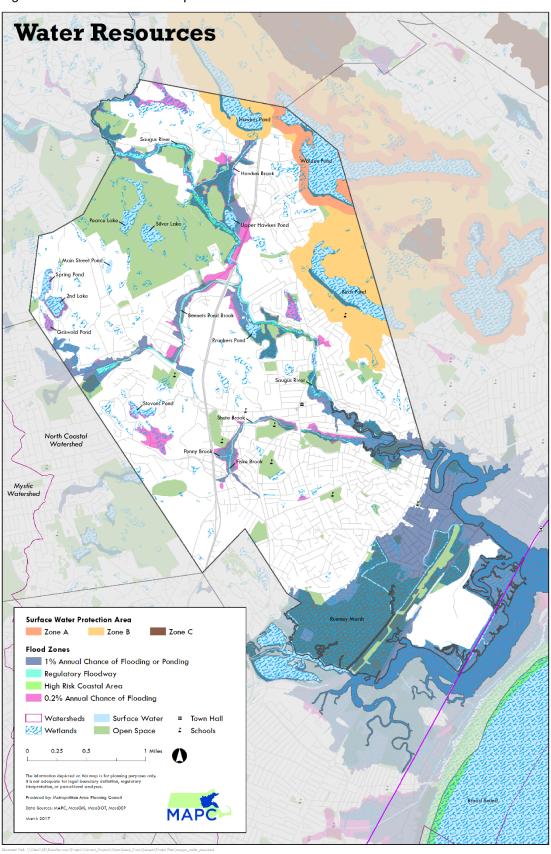
A watershed is an area of land that drains into one river system or body of water. Saugus lies within the North Coastal Watershed, which has a drainage area of approximately 168 square miles, and it encompasses all or part of five river sub-basins (the Danvers, Essex, Saugus, Pines, and Annisquam Rivers). There are over 2,400 lakes and ponds within the North Coastal Watershed that, combined, support a population of approximately 500,000 people. Saugus is one of 26 communities within the North Coastal Watershed.

The Massachusetts Executive Office of Environmental Affairs has developed priorities for all the watersheds in the state. Priorities for future planning for the North Coastal Watershed include:

- 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.²⁶

²⁶ "North Coastal Watershed," Energy and Environmental Affairs, http://www.mass.gov/eea/waste-mgnt-recycling/water-resources/preserving-water-resources/mass-watersheds/north-coastal-watershed.html

Figure 13: Water Resources Map



As its name implies, Saugus is located within the Saugus River Watershed sub-basin. 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.

Notable areas outside of Saugus but within the Saugus River Watershed include:

- Lake Quannapowitt: A 251-acre lake in Wakefield that forms the headwaters for the Saugus River and provides ample recreational opportunities.
- Reedy Meadow: The Saugus River travels through this 540-acre freshwater marsh in Lynnfield and Wakefield that rare and threatened bird species frequent, along with fox, river otter, and muskrat.
- Lynn Woods Reservation: This 2,200 acre municipal park in Lynn is considered the second largest municipal park in Massachusetts.
- Town Line Brook: The southern portion of the Saugus River watershed that includes Town Line Brook and the Seaplane Basin in Revere, Malden, and Everett contains extensive shellfish beds.

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. ²⁷

Surface Water

The Saugus River winds its way through the full length of the town, beginning at the Wakefield/Lynnfield borders as it flows out of Reedy Meadow in Lynnfield and Lake Quannapowitt in Wakefield. It flows past Breakheart Reservation and Prankers Pond to the Ironworks site, where it becomes tidal until it meets with the Pines River at Rumney Marsh. Other significant tributaries of the Saugus River include Bennetts Pond Brook, which runs from the Melrose line at Lynn Fells Parkway to the Saugus River at Route 1, and Shute Brook, which flows from the southern area of Route 1 to the Saugus River at Riverside Cemetery. Both of these streams are too small to have any significant recreational use.

Saugus has a number of lakes and ponds within its bounds. Pearce Lake (also known as Lower Pond) and Silver Lake (also known as Upper Pond) are located entirely within Breakheart Reservation and are managed by the Massachusetts Department of Conservation and Recreation (DCR). Pearce Lake contains a major swimming area and

²⁷ Saugus River Watershed Council, http://www.saugusriver.org/index.htm

beach frontage. Camp Nihan Pond is within the Camp Nihan complex and is used by those visiting the camp, which is managed by DCR and located off Walnut Street near Breakheart Reservation.

Prankers Pond



Other ponds include Birch Pond, Walden Pond, and Hawkes Pond, which are three of the reservoirs that are part of Lynn's drinking water supply. Both Birch Pond and Hawkes Pond are easily visible from the abutting Walnut Street. Walden Pond is mostly within Lynn's borders and is not easily accessible from Saugus. These three ponds are designated as Class A waters, those that are designated as a public water supply. They are excellent habitats for fish and other aquatic life, have a high aesthetic value, and are protected as Outstanding Resource Waters. ²⁸

Since these ponds in northeast Saugus supply drinking water to Lynn, they are surrounded by Surface Water Supply Protection Areas as per 310 CMR 22.00, the Massachusetts Drinking Water Regulations. The Zone A area around Walden Pond represents "the land area between the surface water source and the upper boundary of the bank..., the land area within a 400 foot lateral distance from the upper boundary of the bank of a Class A surface water source..., and the land area within a 200 foot lateral distance from the upper boundary of the bank of a tributary or associated surface water body." Zone B represents "represents the land area within one-half mile of the upper boundary of the bank of a Class A surface water source... or edge of watershed, whichever is less."

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²⁸ Massachusetts Surface Water Quality Standards, Massachusetts Department of Environmental Protection (MassDEP), http://www.mass.gov/eea/docs/dep/service/regulations/314cmr04.pdf

²⁹ "Water Supply Protection Area Definitions," MassDEP,

http://www.mass.gov/eea/agencies/massdep/water/drinking/water-supply-protection-areadefinitions.html

³⁰ Ibid

Prankers Pond is located along the Saugus River near Route 1 and is accessible and available for fishing, canoeing, and ice-skating and cross-country skiing during the winter. The ponds in the Golden Hills section of Saugus—Spring Pond, 2nd Lake, and Griswold Pond—all have potential for additional recreational purposes. Stevens Pond, near the border with Melrose, is now surrounded by a major subdivision of town houses and apartments. In July, 2003, the Saugus Conservation Commission accepted a grant of conservation restriction on the parcel of land totaling 41.39 acres and referred to as "Off Main Street." It is privately owned by the Residences at Stevens Pond, however the Town of Saugus can request permission to provide and maintain trails on the site.

Aquifer Recharge Areas

Aquifers are water resources that lie underground and are invaluable water resources in 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. Saugus has approximately six medium yield aquifer areas dispersed throughout the community.

While Saugus has Surface Water Protection Areas around the ponds that supply drinking water for Lynn, the town has no Groundwater Protection Areas. This is because Saugus has no wells that supply drinking water for the town or surrounding communities.

Flood Hazard Areas

The Federal Emergency Management Association (FEMA) most recently updated its Flood Insurance Rate Maps (FIRM) in 2014 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, the Town of Saugus 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. Fortunately, in large part due to the flood protection from Rumney Marsh, no areas of Saugus lie with this zone, unlike the beachfront area of neighboring Revere.

A significant portion of Saugus 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 town's surface waters and wetlands, many people do live and work in the flood zones. This is particularly true in the Cliftondale neighborhood. In the event of a hurricane or other extreme weather event, buildings in these zones are at risk of flooding. A smaller portion of Saugus lies within FEMA Zone X. These areas are 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."³¹ Development in these floodways must be regulated to ensure that upstream flood elevations do not increase in the event of a storm. Much of the Saugus River and its tributaries are regulatory floodways.

Wetlands

One of the most significant natural features located in Saugus is the Rumney Marsh. The development of this coastal marsh began nearly 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. All of this sediment created barrier beaches, including neighboring 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 seeds began sprouting spreading, possibly transported by birds. This marsh grass, along with thousands of years of debris, sediment, and dead plant life, continued to accumulate. This raised the level of the marsh up past the level of average high tide. Because the cordgrass was no longer wet all the time, it was replaced by salt marsh hay, sea lavender, and marsh elder. Within this thriving environment, many animals (like shellfish, fish, insects, birds, and mammals) began to take residence in the sheltered conditions.

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.

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 Saugus, Lynn, Revere, Boston, and Winthrop.³² The entire ACEC actually comprises two marsh systems, Rumney Marsh and Belle Isle Marsh, which are now disconnected however, together they historically formed a much larger salt marsh complex.

Salt marsh and estuary environments are 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.³³ In addition, the mixing of salt

^{31 &}quot;Floodway," Federal Emergency Management Agency, https://www.fema.gov/floodway

³² "Rumney Marshes," Massachusetts Department of Conservation and Recreation, http://www.mass.gov/eea/agencies/dcr/conservation/ecology-acec/rumney-marshes.html

^{33 &}quot;Salt marsh plants key to reducing coastal erosion and flooding" (2014, University of Cambridge, http://www.cam.ac.uk/research/news/salt-marsh-plants-key-to-reducing-coastal-erosion-and-flooding

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. Today, Rumney Marsh provides important habitat for flounder, alewife, rainbow smelt, American eel, soft shelled and razor clams, mussels, and a variety of native and migratory birds.

Rumney Marsh³⁴





Wetlands in Saugus are not limited to Rumney Marsh. Much of the other wetlands found in Saugus are forested freshwater wetlands that are dominated by trees. Most of these wooded swamps contain deciduous trees, though some contain a mix of tree types. Other wetland types in Saugus are deep marshes, shallow marsh meadows or fens, or areas of open water.

Vegetation

General Inventory

Saugus is fortunate to have large tracts of vegetation that have remained largely undisturbed from development. Besides their aesthetic and recreational values, these vegetated landscapes provide crucial habitats for wildlife, improve air quality, and protect surface and groundwater bodies by stabilizing soils and preventing erosion. The majority of Saugus' vegetation is within its forestland, but there is also substantial wetland vegetation in town, mostly within Rumney Marsh. Though initially settled as an agricultural center, Saugus has no land classified as agriculture or horticulture.

Forest Land

The dominant forest type in Saugus is oak-hemlock-white pine, also the main type of forest in eastern and lowland areas of Massachusetts. The main tree types in these forests are oaks and hickories. Of the central hardwood tree species, red maple, chestnut oak, black

 $^{^{34}}$ Photo source: Saugus River Watershed Council, http://www.parkvisitor.com/parks/MA/rumney-marsh-reservation/

birch, and scarlet oak are all prevalent. The most common softwood is hemlock. White pine is dominant on sandy sites.³⁵ Other significantly occurring forest vegetation in Saugus are poplar and spruce.

In oak/hemlock/white pine forests, the shrub layer is generally sparse and patchy. Dominant shrub species include witch-hazel, mountain laurel, and huckleberry. Herbaceous plants in this forest type are also quite sparse and lacking in diversity. Commonly found species include wintergreen, Indian cucumber, and wild oats.³⁶

The largest undisturbed forestland and managed area within Saugus is Breakheart Reservation. Providing extensive open space and passive recreational facilities, Breakheart Reservation draws people of all ages from a wide area of cities and towns north and west of Boston. The Reservation is approximately 640 acres of oak-hemlock-white pine forest covering numerous hills and surrounding two freshwater lakes, located primarily in Saugus but also abutting and within Wakefield. The area is managed by the Department of Conservation and Recreation's (DCR) Division of MassParks.

Breakheart Reservation³⁷





After Breakheart Reservation, the next largest forested area in Saugus is Lynn Woods Reservation, also owned and managed by DCR, and the City of Lynn's water supply protection land. The latter is owned and managed by the City of Lynn. Together, these adjoining lands comprise almost 500 acres of forestland. While the area of Lynn Woods in Saugus is publicly accessible, the water supply protection lands are not. Other smaller tracts of forest in Saugus are conservation lands, such as the Curley Property (which abuts Breakheart Reservation), Vinegar Hill, and the area around Prankers Pond.

³⁵ Classification of Natural Communities of Massachusetts, Version 2.0, MA NHESP

³⁶ Ibid

³⁷ Photo source: http://www.thecuriouszephyr.com/2014/06/favorite-runs-breakheart-reservation.html

Public Shade Trees

The importance of public shade trees is well understood in Saugus; Saugus has an entire Shade Tree Bylaw in its Town Bylaws. According to the Bylaw:

- a) "It is the intent of this Bylaw to sustain environmental health, enhance the economic well-being and maintain the quality of life for the citizens of the Town of Saugus. Shade trees make an important contribution to the character and heritage of Saugus's neighborhoods. This Bylaw establishes policy and guidelines for ensuring the health and longevity of the Town's community forest.
- b) It is the policy of the Town of Saugus to encourage new tree on public and private property to cultivate a healthy flourishing community forest and increase its value as a whole.
- c) It is also the intent of this Bylaw to form and implement a community forest plan to benefit same. A goal of this community forest plan will be to obtain and maintain eligibility for annual recertification as a recognized 'Tree City, USA.'"38

The Shade Tree Bylaw regulates tree planting, maintenance, and removal, and describes the permitting needed for these activities. It also specifically prohibits damage to public trees and shrubs without written permits from the Tree Warden. Prohibited acts vary from mutilating or killing a tree all the way down to attaching a sign to a tree. Trees on Town owned land must be sufficiently guarded and protected during any construction or excavation project.

In addition, Saugus has a Tree Committee, which works with and advises the Tree Warden on matters pertaining to tree and landscape planning, as well as maintenance of shade and other public trees in Saugus. This volunteer group maintains the Town Tree Farm, educates residents about the benefits and importance of trees, and has an ongoing program for street tree replacement. In 1998, the National Arbor Day Foundation first declared Saugus a "Tree City." People who are interested in having a public tree planted in front of their home can contact the Tree Committee or the Department of Public Works. DPW also assess and trims these public trees.

Saugus' Tree Farm is located off Jasper Street in Saugus Center. The Town maintains the Tree Farm in order to ensure that public trees lost to disease and injury are replaced at a minimal cost to the Town. Saugus' Tree Committee holds an annual fall tree maintenance/tree planting where they, along with volunteers, dig up trees from the Tree Farm to plant out on Saugus streets and parks.³⁹

Wetland Vegetation

Saugus is home to two natural communities increasingly rare in Massachusetts: salt marshes and freshwater tidal marshes. Salt marshes are considered one of the most productive ecosystems on Earth. Vegetation in a salt marsh is salt-tolerant and it provides the basis of the complex food chains in both estuarine and marine environments. Massachusetts has

³⁸ Town of Saugus Bylaws (2014), www.saugus-ma.gov/sites/saugusma/files/uploads/town_by-laws.pdf ³⁹ "Saugus Tree Farm fall tree maintenance and planting" (2015), Saugus Advertiser, http://saugus.wickedlocal.com/article/20151104/NEWS/151108560

lost a large part of its salt marsh habitat, particularly due to the dredging and filling of Back Bay.

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 cordgrass 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.⁴⁰

A globally rare habitat, freshwater tidal marshes are considered a high-priority natural community in Massachusetts. These marshes are located along free-flowing coastal rivers and are influenced by the incoming tides. They are located upstream of the salt front and are characterized by salt intolerant plant species. Low marsh, high marsh, mud flats, rocky shores and the river channel are some of the formations found within this community type.

Unlike in salt marshes, vegetation in freshwater tidal marshes is salt intolerant. However, it also varies depending on the tide and structure of the marsh. Dominant vegetation include blue joint, narrow-leaved cattail, sedges, jewelweed, and more. Within the low marsh areas of freshwater tidal marshes, stand-forming emergent plants like wild rice are able to thrive because of their tough, mat-forming rhizomes that resist erosion. Creeping spearwort and estuary beggar-ticks can be found along the rocky shores while the more sparsely vegetated mud flats contain spike sedges, water purslane, water starwort, and bittercress.⁴¹

Beginning in 2007, the Saugus Iron Works National Historic Site began implementing the Saugus River Turning Basin Restoration Project. The purposes of this project were to restore a tidal freshwater wetland area to the Saugus River and restore the historic turning basin adjacent to the Iron Works. Since that time, the National Park Service (NPS) has removed approximately 3.8 acres of invasive phragmites and other invasive plants, and excavated the turning basin to restore it to historic open water conditions.

During 2008 and 2009, NPS planted over 13,000 new native marsh plants to encourage restoration of a tidal freshwater wetland. Progress of the project is being monitored by NPS staff in consultation with local, state, and federal environmental agencies and nonprofit organizations. Although the resulting tidal marsh is more brackish than freshwater, the overall result has enhanced ecology value of the site by removing a dense bed of invasive phragmites plants and replacing it with mudflat habitat. In conjunction with this project, NPS facilitated the removal of the remaining 1950s-era rock weir from the Saugus River at the Hamilton Street Bridge, restoring tidal hydrology to the area.

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, many located in the Town of Saugus. The plan also includes a set of restoration goals for the ACEC.

⁴⁰ Classification of Natural Communities of Massachusetts, Version 2.0, MA NHESP

⁴¹ Ibid

The Massachusetts Department of Conservation and Recreation's Ballard Street Salt Marsh Restoration Project is one of the larger restoration efforts included in the plan. This complex project would restore over 36 acres of degraded salt marsh and enhance flood control to lessen impacts of coastal and inland rain storms on adjacent neighborhoods. Despite several years of outreach, planning and permitting, this project is currently on hold due to lack of consensus among environmental permitting agencies.

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. Special concern species 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.

Due to the variety of wildlife areas like Breakheart Reservation and Rumney Marsh, Saugus has numerous species of both common and rare vegetation. The Natural Heritage and Endangered Species Program of the Massachusetts Division of Fisheries and Wildlife has identified three rare vascular plants in Saugus: estuary arrowhead, wild senna, and slender cottongrass.⁴²

Estuary arrowhead (Sagittaria montevidensis ssp. spongiosa), a member of the Water-plantain family, is a spongy aquatic annual that is submerged at high tide. As its name implies, this plant occupies tidally-influenced habitats, specifically freshwater tidal marshes. Estuary arrowhead has small white flowers growing on erect peduncles and spongy, spatula-like leaves. It is considered an endangered species in Massachusetts and is negatively impacted by any alteration of hydrological conditions or increased sedimentation due to changes in land use adjacent to the marshes it grows in. The plant was last spotted in Saugus in 1921.





⁴² "Massachusetts List of Endangered, Threatened and Special Concern Species," MA EOEEA, http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/species-information-and-conservation/mesa-list/list-of-rare-species-in-massachusetts.html

⁴³ Photo source: http://alismataceae.e-monocot.org/taxonomy/term/233

Wild senna (Senna hebecarpa) is another endangered species, found in Saugus as recently as 2013. Though never a common species in Massachusetts, it experienced increasing population declines in the 20th century, likely due to succession following agricultural abandonment and development. While somewhat contradictory, the plant often occurs in areas with a history of disturbances, and it can occur both wetland and moist upland contexts. This herbaceous perennial is a member of the Pea family and has yellow flowers, compound leaves, and pea-like pods for fruit.

Wild Senna⁴⁴



Slender cottongrass (*Eriophorum gracile*) is a narrow-stemmed, perennial vascular plant topped by a cluster of white inflorescences that resemble tufts of wool. The stem is weak and circular and the blades are narrow. This plant, considered to be a threatened species in Massachusetts, lives in swamps and peatlands and depends on consistent water quality and quantity. The interruption or degradation of water supplies can negatively affect the habitat of slender cottongrass, further threatening its existence. It was last spotted in Saugus in 1924.

Slender Cottongrass 45



 $^{^{44}\} Photo\ source:\ https://www.butterflygardenstogo.com/plants/cassia-hebecarpa-wild-senna/plants/cassia-hebecarpa-hebecarpa-hebecarpa-hebecarpa-hebecarpa-hebecarpa-hebecarpa-hebecarpa-$

⁴⁵ Photo source: https://gobotany.newenglandwild.org/species/eriophorum/gracile/

Mapping Projects

In partnership with the Nature Conservancy, the Natural Heritage & Endangered Species Program 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." ⁴⁶ 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*, 1,052 acres in Saugus is considered Core Habitat. Of this, 735 acres are already protected in perpetuity.⁴⁷ Figure 14 shows the locations of the *BioMap2* Core Habitat: Breakheart Reservation, part of Lynn Woods Reservation, and a portion of the Golden Hills area of town.

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 446 acres of Saugus is considered Critical Natural Landscape. Of this, 373 acres are protected in perpetuity.⁴⁸ The Critical Natural Landscape areas shown in Figure 14 include Rumney Marsh and land adjacent to the Saugus River.

Also shown in Figure 14 are Priority Habitats of Rare Species. According to MassGIS, "The Priority Habitats of Rare Species datalayer contains polygons representing the geographic extent of Habitat of state-listed rare species in Massachusetts based on observations documented within the last 25 years in the database of the Natural Heritage & Endangered Species Program (NHESP)." Priority Habitats of Rare Species in Saugus include part of Lynn Woods Reservation and an area off Route 1 near the border with Melrose.

⁴⁶ "BioMap2," MA EOEEA, www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/land-protection-and-management/biomap2/

⁴⁷ "BioMap2: Saugus" (2012), MassGIS, http://maps.massgis.state.ma.us/dfg/biomap/pdf/town_core/Saugus.pdf

⁴⁹ "NHESP Priority Habitats of Rare Species," MassGIS, www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/prihab.html

Figure 14: Plant & Wildlife Habitat Map Plant & Wildlife Habitat Potential Vernal Pools Certified Vernal Pools Priority Habitats of Rare Species Areas of Critical Environmental Concern BioMap2 Core Habitat BioMap2 Critical Natural Landscape Open Space ■ Town Hall : Schools Water

Fisheries and Wildlife

Inventory

Wildlife in Saugus is relatively abundant in the undeveloped areas of town, though these remaining undeveloped areas represent small islands in a sea of urbanization. Fauna have been pushed back into these areas more and more in recent years as development has encroached further into existing habitats. However, diversity and occurrence of some relatively rare wildlife species, such as fishers, foxes, and owls, has increased alongside more common species like skunks, raccoons, and opossums. Birds are extremely plentiful in most areas, including many wetland-loving species such as geese, ducks, and herons. The shores of open water make excellent habitat for songbirds, and dozens of species can be seen throughout town.

Each natural community is home to different kinds of wildlife; Saugus' range of natural communities, from forest land to marsh, and their associated habitats exemplifies this. The oak-hemlock-white pine forest-type that defines Breakheart Reservation has a rich diversity of fauna, including a number of neotropical migrant bird species like warblers. Most mammals found in these forests are small and include a variety of shrews, mice, and squirrels, though bears and moose may be found on larger sites. Amphibians include Northern Redback Salamanders and red efts, the juvenile stage of red-spotted newts. The tree cavity den sites found in these upland forest types provide important structural attributes for birds and mammals, while amphibians, reptiles, and other invertebrate species utilize the large woody material found on the forest floor. In addition, acorns that come from the oak trees found in forests like Breakheart Reservation are an important source of wildlife food.⁵⁰

Salt marshes, on the other hand, are home to very few mammals, though meadow voles reside in them before retreating to dryer areas during high tides. Many bird species forage in salt marshes like Rumney Marsh, and some sparrows even nest in them. Owls hunt in salt marshes in the fall and winter, while ducks and other shorebirds forage in low tide pools during the summer.⁵¹ Dozens of fish and shellfish species live out some portion of their lives in Rumney Marsh, including flounder, stripped bass, and menhaden.⁵²

More vertebrates, like muskrats and freshwater snakes, frequent freshwater tidal marshes than salt marshes, but their numbers are still low compared to other kinds of species. According to the Massachusetts Natural Heritage & Endangered Species Program, "This community provides outstanding general wildlife habitat, with abundant food sources for migratory and wintering waterfowl, and is generally associated with river reaches with spawning habitat for anadromous fisheries such as shad or herring." These marshes provide habitat for nesting marsh birds and their wild rice is an important food source for migratory birds like sora rail. Often abundant along the tidal channel are mussels and snail species.

⁵⁰ Classification of Natural Communities of Massachusetts, Version 2.0, MA NHESP

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 $^{^{52}}$ "Rumney Marsh Information Page," US EPA, https://www3.epa.gov/region1/eco/rumneymarsh/

⁵³ Classification of Natural Communities of Massachusetts, Version 2.0, MA NHESP

The Saugus River, in addition to being a facility for recreational activities, also serves as a local fishery. The Saugus River and its tributaries provide habitat for many different species of fish. Fish monitoring and inventories conducted by the Saugus River Watershed Council and the National Park Service have documented the presence of rainbow smelt, American eel, four-spine stickleback, white sucker, mummichog, alewife, redfin pickerel, brook stickleback, three-spine stickleback, yellow perch, bluegill, blueback herring, largemouth bass, white perch, and nine-spine stickleback in the main stem of the Saugus River.

Since 2007, the Saugus River Watershed Council has been working in partnership with the Massachusetts Division of Marine Fisheries and the Saugus Iron Works National Historic Site to conduct fish monitoring projects aimed at identifying the presence and extent of rainbow smelt and American eel populations in the river. Both species have healthy populations in the region. During a survey conducted during 2011 and 2012, an active smelt spawning habitat was identified in rocky gravel beds of the Saugus River in the vicinity of the Saugus Iron Works. While degraded conditions in Shute Brook had rendered the area as questionable smelt habitat, the project team found thousands of smelt eggs, particularly in one area that they dubbed "the nursery." 54

Rainbow Smelt55



In 2007, the Massachusetts Division of Marine Fisheries reopened 230 acres of clam flats in the Saugus/Pines River estuary. The sites in Saugus and Revere are now open for commercial clam digging on a "conditionally restricted" basis. Fishermen with "master digger" shellfish licenses are allowed to harvest the clams and bring them to the State's shellfish purification plant in Newburyport before they go to market.

Vernal Pools

Vernal pools serve as an important breeding ground and home to a number of amphibians and invertebrate animals. Also known as ephemeral pools, autumnal pools, and temporary woodland ponds, these natural sites fill with water in the fall or winter due to rain and rising groundwater. They stay ponded through the spring and into summer, but tend to dry completely by the middle or end of the summer. This occasional drying

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⁵⁴ "Saugus River Smelt Spawning Habitat Assessment," MA EOEEA, www.mass.gov/eea/agencies/mass-bays-program/grants/smelt-spawning-2012.html

⁵⁵ Photo source: Ibid

prevents fish from permanently populating the pools, allowing amphibians and invertebrate species to reproduce without being targeted by fish predators.⁵⁶

The Massachusetts Natural Heritage and Endangered Species Program has certified 14 vernal pools in Saugus as of 2015. Certification occurs according to the Massachusetts Division of Fisheries & Wildlife's Guidelines for the Certification of Vernal Pool Habitat. Certified vernal pools can usually be protected from development and are afforded protection under a number of state regulations, including those from the Water Quality Certification (401 Program), Title 5, and the Forest Cutting Practices Act. ⁵⁷ They are also protected by the State's Wetlands Protection Act regulations if they meet the definitions of "wetlands" under that law. ⁵⁸ There are almost 50 potential vernal pools in Saugus that have been identified, but not certified, by NHESP. Figure 14 shows the locations of both certified and potential vernal pools in Saugus.

Clusters of vernal pools indicate particularly good habitats for the species that depend on them, including water scorpions, spotted turtles, wood ducks, water bugs, ribbon snakes, salamanders, fairy shrimp, isopods, frogs, and spadefoot toads. If something happens to one pool, another pool in the cluster can provide an alternate habitat, and slightly different conditions in each pool may provide different habitats for pool-dependent species. Significant potential vernal pool clusters exist in and around Breakheart Reservation, in the water protection area on the Lynn border, and near Stevens Pond. Certifying the potential vernal pools in Saugus would provide more protection to these wetlands and the species that utilize them.

Wildlife Corridors

The Saugus River and its surrounding wetlands, as well as Breakheart Reservation, provide a rich corridor for wildlife to travel, seek food, and find shelter, even within earshot of the major transportation artery of Route 1. Species absent for decades, such as deer and wild turkey, have returned to Saugus, showing the importance of maintaining a connective habitat for wildlife.

A major river system such as the Saugus River watershed is a prime example of a water-based wildlife corridor. As previously mentioned, the river is 13 miles long and has six main tributaries, encompassing an area of 47 square miles and including all of Saugus and portions of ten other communities. It is particularly fish that utilize rivers for migration and spawning. According to the Saugus River Smelt Spawning Habitat Assessment, "Rainbow smelt are a native anadromous fish in New England that utilize fast flowing riffles upstream of tidal influence as spawning habitat the spring. Smelt migrate from marine waters at night during flood tides to spawn at riffle substrates leaving a demersal, adhesive egg that will incubate for one to three weeks depending upon water temperature. Upon hatching, smelt larvae move passively downstream to tidal waters where they feed and grow until maturity one to two years later."

^{56 &}quot;Vernal Pools," MA EOEEA, www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/vernal-pools/

^{57 &}quot;MassGIS Data - NHESP Certified Vernal Pools," MassGIS, http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/cvp.html 58 "Protecting Vernal Pools," Mass Audubon, http://www.massaudubon.org/learn/nature-wildlife/reptiles-amphibians/vernal-pools/protecting

Rare Species

The Natural Heritage and Endangered Species Program of the Massachusetts Division of Fisheries and Wildlife has identified five rare animal species in Saugus: the Sedge Wren, Peregrine Falcon, Purple Tiger Beetle, Eastern Red-bellied Tiger Beetle, Umber Shadowdragon, and Eastern Box Turtle.⁵⁹

The Sedge Wren (Cistothorus platensis) is a songbird that can be distinguished by its small size, streaked crown and back, buffy eye stripes, and short upright tail. Preferred nesting areas for this species include wet meadows and marsh areas where grasses intersperse with small shrubs. As such, it is threatened by the loss of these open, wet meadows due to hydrological changes. Mainly contributing to hydrological changes in the state are local or regional reductions of the water table as a result of urbanization. The Sedge Wren is endangered and was last seen in Saugus in 1905.

Sedge Wren⁶⁰



Another rare bird species spotted in Saugus as recently as 2014 is the Peregrine Falcon (Falco peregrinus). This threatened species is the fastest bird on earth, diving from great heights at over 200 miles per hour. The Peregrine Falcon is a large raptor that is distinguished by its black crown, barred white underparts, and blue-grey back. Peregrines rest on nest on the cliffs of quarries in Saugus, as well as on man-made structures like bridges and buildings. This species nearly went extinct in the 1960s due to the effects of the pesticide DDT, but has bounced back in recent decades with the banning of DDT and a concerted effort to captive-breed and release young Peregrine Falcon chicks.

The Purple Tiger Beetle (Cicindela purpure) is a purplish-red insect with iridescent green highlights and is known for its "tiger-like" behavior of chasing down and capturing prey. It is an upland species commonly found in meadow paths, roadsides, clearings, and grassy areas. The Purple Tiger Beetle was last noted in Saugus in 1915 and is a species of special concern. The Eastern Red-bellied Tiger Beetle (Cicindela rufiventris hentzii) is a threatened species that was last seen in Saugus in 2016. This insect is mainly dark brown

^{59 &}quot;Massachusetts List of Endangered, Threatened and Special Concern Species," MA EOEEA, http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/species-information-and-conservation/mesa-list/list-of-rare-species-in-massachusetts.html

⁶⁰ Photo source: https://www.allaboutbirds.org/guide/Sedge_Wren/id

with a copper sheen, has white markings on its wings, and has a bright orange abdomen. It inhabits sparsely-vegetated bedrock outcrops, often of granite composition.

A species of special concern in Massachusetts, the Umber Shadowdragon (*Neurocordulia* obsoleta) is a large dragonfly with chocolate brown coloration. Unlike other members of the Corduliidae family, shadowdragons lack the metallic green coloration and green eyes seen in the family known as the emeralds. The Umber Shadowdragon is an inhabitant of lakes, ponds, and rivers, and is thus threatened by the overuse of those habitats for recreation, specifically power boats that create increased wave action. This species was last seen in Saugus in 2004.

Lastly, the Eastern Box Turtle (*Terrapene carolina*) is a species of special concern that was last spotted in Saugus in 1997. This species is a small turtle that, when threatened, has the ability to enclose its head, legs, and tail completely within its protective armor. The carapace is dark brown or black with irregular yellow, orange, or reddish spots or stripes. The Eastern Box Turtle is a woodland species that prefers deciduous forests, but it can also be found in pastures, marshy meadows, moist woodlands, marsh edges, bogs, and streambanks. This species is under threat for a variety of reasons, including habitat destruction from residential and industrial development, road mortality, and collection by humans for pets.

Scenic Resources and Unique Environments

Scenic Landscapes

As touched upon in the Landscape Character section, Saugus has a number of locations that are of particular scenic interest and reflect the town's special character and history (see Figure 15). Areas identified in that section with exceptional scenic views include the tops of Baker Hill and Vinegar Hill, where one can see Rumney Marsh, the Boston skyline, and the ocean off Revere Beach. Another steep location with scenic views of Saugus is the 286-foot Castle Rock in Breakheart Reservation.

The Saugus River is an extraordinary natural feature that winds its way through Saugus, and beautiful views of it can be seen throughout town. In addition to being a boat launch area, Vitale Memorial Park is a small park constructed in 1992 with benches and picnic tables that look out onto the Saugus River. Another scenic view of the Saugus River can be found near the Lynn Fells Parkway overpass onto Route 1.

While the Town of Saugus has not officially designated any scenic roads, it has a handful of roads that are within the National Register of Historic Places. Lynn Fells Parkway, which runs from Stoneham, through Melrose, and ends in Saugus at Route 1, is a connector between Middlesex Fells Reservation and Breakheart Reservation. The Melrose and Saugus portions of the parkway were added to the National Register of Historic Places on May 9, 2003. Four parkways within Breakheart Reservation were added to the National Register in August of 2003: Forest Street, Pine Tops Road, Elm Road, and Hemlock Road.



View of Saugus River from Vitale Memorial Park

Cultural, Archeological, and Historic Areas

The Town of Saugus has a very active and involved Historical Commission with seven members. The Commission is tasked with identifying and inventorying historic resources in Saugus and advising the Town on how best to preserve them. The Historical Commission is also extremely active in the implementation and enforcement of the Demolition Delay By-Law. Where appropriate, Commission members advise the Town Manager about Townowned properties that may have historic value and how best to manage them so as not to compromise this value.

Saugus' Historical Commission reports its historical inventory to the Massachusetts Historical Commission. Through the Massachusetts Cultural Resource Information System (MACRIS), anybody can view the list and documentation of Saugus' historical areas, buildings, burial grounds, objects, and structures. A complete list of the town's historical resources can be found in Appendix 2.

Saugus has two sites that are designated as National Historic Landmarks: the Saugus Iron Works and Boardman House; they are also both listed within the National Register of Historic Places. According to the National Park Service's website, "National Historic Landmarks (NHLs) are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States."

The Boardman House, located on Howard Street, was built in 1692 for the family of William Boardman. Over 300 years later, it remains remarkably intact. Though it has had some minor structural repairs, the house has been unaltered since the early 18th century. Descendants of William Boardman owned and occupied the home until 1914, when William Sumner Appleton, founder of Historic New England, purchased it because of its remarkable state of preservation.⁶² In order to help finance and maintain the Boardman House, it was actually rented for a number of years.

^{61 &}quot;National Historic Landmarks Program," National Parks Service, www.nps.gov/nhl/

^{62 &}quot;Boardman House," Historic New England, www.historicnewengland.org/property/boardman-house/

Scenic Resources & Unique Environments National Register of Historic Places MA Historical Commission Inventoried Areas Areas of Critical Environmental Concern

Figure 15: Scenic Resources & Unique Environments Map

The Saugus Iron Works was one of the first successful ironworks in North America. Now owned and managed by the National Parks Service, the site includes a reconstructed blast furnace, forge, rolling mill, and a restored 17th century house. Set on the Saugus River, the original manufacturing site was a training ground for skilled ironworkers and what would become of America's iron and steel industry. The Iron Works provides a glimpse into the past by showing the critical role that iron-making played in 17th-century settlement and its legacy in shaping the nation's early history.⁶³

Saugus Iron Works⁶⁴





Located in the Lynnhurst area of Saugus, Vinegar Hill it is significant for both historic and prehistoric purposes. Native Americans are known to have used Vinegar Hill as a quarry for "Saugus Jasper" and other volcanic materials used for making stone tools. Prehistoric stone artifacts have been found at the site dating back 6,000. In 1640, early European settlers built a fort and lookout to provide protection from pending dangers. By the 1650s, pirates were known to hide out in the area and trade silver for goods at Hammersmith, the original name for the Saugus Iron Works. Since this time, several many artifacts and tool manufacturing sites in the area have been found.

Round Hill is another area of Saugus known for its rich Native American history. The 150-foot Round Hill, located behind the Town's Public Safety Building, is the focal point of the Saugus Town Seal; the hill is located behind Motowampate, the Saugus sachem who is holding a bow and arrow. Native American artifacts, including arrowheads, have been found at Round Hill. The Town of Saugus is working to create a historic site at the base of Round Hill that will honor the town's Native American history. Once completed, the site will feature an interpretive sign, granite pavers, a site identification obelisk, benches, and professional landscaping.⁶⁵

^{63 &}quot;Saugus Iron Works," National Park Service, www.nps.gov/sair/index.htm

⁶⁴ Photo source: http://essexheritage.org/ts/event/tools-survival-ironworks-saugus and http://www.stateparks.com/massachusetts_parks_and_recreation_destinations.html

⁶⁵ Mike Gaffney (2014), "Round Hill site recognized in Saugus for its history," Saugus Advertiser, http://saugus.wickedlocal.com/article/20140508/NEWS/140507429

Unique Environments

Rumney Marsh is one of two Areas of Critical Environmental Concern (ACEC) in Saugus. Designated in 1988, the Rumney Marshes ACEC is an approximately 2,800-acre urban salt marsh system extending into Saugus, Lynn, Revere, Boston, and Winthrop. 66 Mentioned extensively throughout this plan, this ACEC is one of the most biologically significant salt marshes north of Boston.

The other Area of Critical Environmental Concern in Saugus is Golden Hills. It covers approximately 500 acres and was designated as an ACEC in 1987. Golden Hills contains a blend of residential and ecological resources within a very urbanized area. The terrain of the neighborhood is generally hilly, but there are also low, flat areas, as well as three ponds. Wetlands are found in depressions throughout the area. Bedrock outcrops, or ledges, are prevalent throughout the area, especially in hilly sections. Wakefield owns some 50 acres of the ACEC, which are mostly Town forest, and Saugus owns several acres under the jurisdiction of the Saugus Conservation Commission.⁶⁷

Another unique and highly valued resource in Saugus is the Northern Strand Community Trail. Running along 2.4 miles of the former rail bed of the Saugus Branch Railroad, the shared-use path starts in Everett and travels through Malden, Revere, and Saugus to the Lynn line. During the fall of 2010, Saugus Town Meeting voted to authorize the Saugus Board of Selectmen to begin negotiations with the Massachusetts Bay Transit Authority (MBTA) about the possibility of constructing the trail in Saugus. In January 2012, the Board of Selectmen voted unanimously to support a lease with the MBTA and the Bike to the Sea organization that would allow construction of the trail in Saugus to move forward. The bike and pedestrian trail is now complete and provides a major new recreational opportunity for the Town of Saugus.

Environmental Challenges

Hazardous Waste 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 Saugus 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 Reportable Release Lookup Database has identified 220 hazardous waste sites in the Town of Saugus 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

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^{66 &}quot;Rumney Marshes," Massachusetts Department of Conservation and Recreation, http://www.mass.gov/eea/agencies/dcr/conservation/ecology-acec/rumney-marshes.html
67 "Golden Hills," MA EOEEA, http://www.mass.gov/eea/agencies/dcr/conservation/ecology-acec/golden-hills.html

that may contain potentially contaminated soil, water, and air. Most sites have been restored or deemed close to their original state.

Of the total number of sites, 19 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 Saugus is provided in Appendix 3.

Sites with Activity Use Limitations include the Wheelabrator landfill site along Route 107, the Golden Hills electric transmission substations off Howard Street, the quarry at 1831 Broadway, an industrial property at 109 Ballard Street, the Saugus Iron Works at 244 Central Street, Sears Automotive at 1325 Broadway, a gas station site at 9 Main Street, and commercial properties at 222 Central Street, 595 Broadway, 1481 Broadway, 66 Broadway, 130 Ballard Street, and Central Plaza at 306-308 Central Street.

Sites with AULs are often prevented from being developed for future uses, such as housing, due to past contamination. While this may limit their development potential, another excellent option for utilizing these sites is to turn them into parks and other open spaces after they have undergone some remediation. There are many successful examples of where this has been done throughout the country, including for Nina Scarito Park in Lawrence, Massachusetts.

Landfills and Waste Disposal

The Town of Saugus owned and operated its own dump for many years. This site was located behind the Department of Public Works building at 515 Main Street, however the site was closed in the 1980s after reaching its capacity; it was eventually capped with a protective barrier between the contaminated waste and surface. The site is now a solar farm featuring 5,000 solar panels with a maximum capacity of 1.66 megawatts of electricity annually. Today, the solid waste in town is picked up curbside and delivered to Wheelabrator Saugus, which has an incinerator and large landfill for depositing the ash. Formerly RESCO, Wheelabrator Saugus has been in existence for nearly 35 years.

Environmental groups and residents of 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 ACEC. 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.⁶⁸ Following a proposed expansion at Wheelabrator's ash landfill in the summer of 2016, the Saugus Board of Selectmen voted unanimously to send a letter opposing any expansion at the landfill to the Massachusetts

⁶⁸ Saugus River Watershed (2016), http://www.saugusriver.org/documents/SRWCStatementWheelabratorMay2016.pdf

Environmental Policy Act (MEPA) office. The letter also called for a full closure of the 160-acre landfill.⁶⁹

Wheelabrator Saugus⁷⁰



Once Wheelabrator's ash landfill reaches disposal capacity, 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 Area of Critical Environmental Concern. Once 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. As of May 2017, Wheelabrator has submitted a request to the Massachusetts Department of Environmental Protection 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 year period. The purpose of the request is to extend use of the landfill which would otherwise be closed and capped once the active disposal area reaches capacity over the next year or two.

Recycling materials in town are picked up curbside weekly and delivered to GreenWorks, a recycling facility in Peabody, for processing. The Town of Saugus also operates a drop-off site that is open to all residents and located behind the Department of Public Work building. Residents can access this site on Saturdays mornings at no charge. Any items currently accepted in the curbside bin collection program are accepted at the drop-off site. Residents can also recycle old televisions and computers at the site for no charge. Additionally, residents can purchase a vehicle sticker, for \$25, which allows them to compost yard waste, grass clippings, leaves and small brush at this site on Saturdays. The Town of Saugus also offers its residents four weeks of curbside collection of leaves and yard waste.

Once a year, the Town of Saugus offers a Household Hazardous Waste Day Event for the proper disposal of hazardous waste materials, as well as items that have been banned from the waste stream by MassDEP. Some of the banned items include televisions,

⁶⁹ Jeanette Hinkle (2016), "Selectmen oppose Wheelabrator Saugus ash landfill expansion" http://saugus.wickedlocal.com/news/20160627/selectmen-oppose-wheelabrator-saugus-ash-landfill-expansion

⁷⁰ Photo source: http://www.wtienergy.com/plant-locations

computers, tires, propane tanks, chemicals, poisons, hazardous waste, batteries, and mercury bearing items. The Town also participates in a reciprocity program with some of the surrounding communities, which allows residents additional dates for proper disposal of hazardous waste. A sharps kiosk is located at the lower level of Town Hall for residents to properly dispose of needles.

Chronic Flooding

Several areas of Saugus, particularly those that are coastal and near the Saugus River, are prone to flooding. For example, East Saugus is an area that experiences chronic flooding and at times requires sandbagging to prevent flood damage. The Saugus River is tidal from Hamilton Street up to the Saugus Iron Works, as a result this section of town is affected by basement flooding and other problems during heavy rains and storms.

Other areas of flooding include the wetland area behind Belmonte Middle School and Shute Brook. Shute Brook often experiences tidal flooding up to Saugus Center when there are storm surges or unusually high tides. Rumney Marsh generally protects Saugus Center from flooding due to its natural water storage capacity. With funding received from the Federal Emergency Management Agency (FEMA) in 2008, the Town of Saugus replaced the Shute Brook culvert in order to alleviate flooding in the adjacent residential areas.

Further, drainage issues which contribute to localize flooding exist in Lynnhurst, from Stockade Road to Elm Street. This is primarily due to an inadequate drainage system installed by a developer. Ballard Street also experiences drainage issues due to a partially collapsed drain line, and in the northern section of town the Cedar Glen Golf Course experiences periodic flooding due to beaver dams on the Saugus River.





The Town of Saugus has several policies and agencies in place to prepare for and manage inevitable flooding in the community. The Department of Public Works cleans all catch basins and does street sweeping twice a year. The Town also has a Floodplain Overlay Zoning District that requires any development in this district to meet specific

 $^{^{71}}$ Photo source: https://www.bostonglobe.com/metro/2012/05/11/beaver-dam-causes-headaches-for-saugus-golf-course/wpH4y77tSyri1u5jpf0S9H/story.html

wetland regulations and building codes for flood resistant construction. Saugus has worked with consultants to study the town's flooding problems and identify mitigation measures that can be established and enhanced to help alleviate flooding issues.

New Development

Described in the Community Setting element of this plan, Saugus is almost entirely built out. Since there are very few parcels of vacant land that are developable and free of constraints, most new development in town must occur via infill development, some redevelopment, and teardowns. In communities where vacant land is scare, such as in Saugus, opportunities for open space preservation are often limited and come up against demands for residential and commercial growth.

Fortunately, the Town of Saugus has been proactive about preserving land for open space even with development pressures. In 2001, Saugus Town Meeting members voted to authorize the Board of Selectmen to sell six parcels of land for \$1 each to Procopio Construction for development of a 46-home subdivision. The cluster agreement created a 23-acre conservation area for the Town of Saugus that encompasses the Glen, Pirates Cave, and top of Vinegar Hill in a contiguous area of open space. Signage, outreach, and trail maintenance are being implemented to improve public access to the summit of Vinegar Hill.

Water Quality and Quantity Issues

For many years, Saugus had a deteriorating sewer system. During wet weather events, defects in the system would cause sanitary sewer overflows (SSOs) into the ocean, rivers, and wetlands. A bypass pump was installed to prevent the sewer from overflowing into homes, though it had the very negative effect of discharging raw sewage into the Saugus River. As a result, the Town of Saugus entered into an Administrative Consent Order (ACO) with the Massachusetts Department of Environmental Protection (MassDEP) in 2005 to reduce or eliminate these SSOs. The Town embarked on a more than decade-long, multimillion dollar plan to address this problem and is now in the last phase of the ACO.⁷² Necessary upgrades have been made to the town's sewer system and water quality testing has begun.

Some of the waterbodies in Saugus 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). MassDEP defines a TMDL as 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." Waterbodies that do not have a designated TMDL, but require one, are considered Category 5 waters. According to MassDEP's 2014 Integrated List of Waters Map, the Saugus River is a Category 5 waterbody from Bridge Street down to Lynn Harbor. Impairments include:

⁷² "Denver St. LLC v. Town of Saugus" (2012), Justia, http://law.justia.com/cases/massachusetts/supreme-court/2012/sjc-10927.html

^{73 &}quot;Total Maximum Daily Loads (TMDLs) Basics", MA EOEEA

http://www.mass.gov/eea/agencies/massdep/water/watersheds/total-maximum-daily-loads-tmdls-basics.html

- Oil and grease from industrial and municipal point source discharges, as well as from municipal non-point sources;
- Fecal coliform from industrial and municipal point source discharges, as well as from municipal non-point sources;
- Fecal coliform from municipal separate storm sewer systems (MS4) and sanitary sewer overflows;
- Increased temperatures from industrial and municipal point source discharges, as well as a result of hydrostructure flow regulation/modification.

Hawkes Pond is also a Category 5 waterbody due to turbidity, though the source is unknown. The Saugus River's span from the Wakefield border to Bridge Street falls into Category 4A, meaning that a TMDL has been completed for it because of the presence of fecal coliform found in the river (due in part to discharges from MS4). Shutes Brook, Hawkes Brook, and Bennets Pond Brook are also all Category 4A waters as TMDLs have been completed for fecal coliform associated with discharges from MS4 and bridge and road runoff. In the case of Bennets Pond Brook, TMDLs are also in place due to illicit connections and hookups to storm sewers.⁷⁴

With help from volunteers, the Saugus River Watershed Council (SRWC) is working to monitor and report on water quality conditions throughout the watershed. In Saugus, the Council monitors water quality conditions at several sites in the main stem of the Saugus River and one site in Shute Brook. Evaluating water quality for bacteria in the main stem of the Saugus River provides important information about whether conditions are safe for boating. During 2016, water quality conditions in the main stem of the Saugus River met water quality standards for safe boating 100% of the time during dry weather conditions. However, during the same period, pollution from bacteria associated with stormwater runoff and/or sanitary discharges often caused elevated bacteria counts during rain storms and the following 24 hour period.

Current efforts by SWRC to address water quality problems are focused on ensuring the elimination or reduction of combined sewer overflows (CSOs) into Strawberry Brook and the Saugus/Lynn Harbor estuary, mitigating sewer discharges associated with Saugus' Boston Street pumping station, addressing other "hot spot" pollution problems, and reducing stormwater pollution throughout the watershed. The Council will also continue working in partnership with Revere and the Metropolitan Area Planning Council to address stormwater pollution in Town Line Brook. SRWC is also working with the communities in the Saugus River Watershed, MassDEP, the Lynn Water and Sewer Commission, and others to increase flow to the Saugus River. Strategies being pursued include identifying the level of flow needed to restore habitat and wildlife, reducing water withdrawals, and promoting water conservation strategies.

Illegal Dumping

Illegal dumping is an issue at certain parks, playgrounds, and open spaces in Saugus, particularly Stocker Playground. Not only can this lead to environmental contamination depending on what is being dumped, but it inhibits safe, reliable access to sites.

^{74 &}quot;2014 Integrated List of Waters Map," MassDEP, http://maps.massgis.state.ma.us/images/dep/omv/il2014viewer.htm

Community-based cleanup projects coordinated by the Town of Saugus, Boy Scout troops, the Saugus River Watershed Council, Bike to the Sea, and other organizations have helped to remove debris and promote stewardship of local open spaces. Additional efforts such as creative landscaping, education, signage, and enforcement of fines are needed to reduce and prevent illegal dumping in Saugus.

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. *Phragmites australis*, a pervasive common reed, plagues brackish and tidal areas of the Saugus River and Rumney Marsh. In addition, freshwater species such as variable milfoil, fanwort, and water chestnut cause issues in Golden Hills' Griswold Pond. In nearby Lake Quannapowitt in Wakefield, high levels of *microcystis*, a type of algae that can be toxic to both humans and animals, have been found.⁷⁵

The Saugus River Watershed Council and other environmental groups are working to prevent the spread of aquatic invasive species in the watershed. According to SRWC, "Our efforts have ranged from working in partnership with the National Park Service to remove phragmites from areas adjacent to the Saugus River, and conducting research to identify the presence and extent of aquatic invasive plants in ponds of the upper watershed, to assessing levels of toxic algae in Lake Quannapowitt."

Impacts from Climate Change

Climate change is already having an impact on natural resources in New England and those impacts are expected to increase in the future. Impacts to Saugus' natural resources include sea level rise, coastal storm surge, extended dry periods, more intense rain storms and flooding, increases in temperature, changes in aquatic vegetation, tidal influence moving upstream, and shifts in habitat for fish and other wildlife.

Efforts to identify risks and develop climate adaptation strategies are already underway in the region. In 2015, the Saugus River Watershed Council published a resource document, Development Strategies for Promoting Coastal Resilience and Sustainability, to provide access to some of the best planning resources and tools for community leaders, property owners, developers and builders. The document includes resources for understanding and adapting to coastal impacts of climate change.

In 2016, the neighboring City of Lynn completed a Coastal Vulnerability and Risk Assessment to identify vulnerabilities and develop coastal protection and adaptation strategies to protect infrastructure. While the study did not focus specifically on Saugus, risks and vulnerabilities to sea level rise and storm surge were identified for the Lynn waterfront and the Saugus River. Wetlands and waterfront properties in the same Saugus River estuary on the Saugus side of the river will face similar impacts.

^{75 &}quot;Aquatic Invasive Plants in the Saugus River Watershed," Saugus River Watershed Council, http://www.saugusriver.org/documents/invasivesbrochure1_000.pdf
76 Ibid

Analysis of best available data and tools indicate that the coastline in the Saugus River is vulnerable to sea level rise and storm surge. The following table from the assessment highlights estimated sea level rise and storm surge for coastal areas in the Saugus River estuary.

Table 3. Estimated Sea Level Elevation under Climate Change Scenarios for Lynn, MA

Scenario	2016	2041			2066		
		NOAA Low	NOAA Intermediate High	NOAA High	NOAA Low	NOAA Intermediate High	NOAA High
Mean higher high water (MHHW)	4.8	5.0	5.5	6.0	5.3	6.7	7.8
10-year Storm (Category 1 Storm Results from SLOSH)	7.1	7.3	7.8	8.2	7.5	8.9	10.0
100-year Storm (Category 2 Storm Results from SLOSH)	11.1	11.3	11.8	12.2	11.5	12.9	14.0

Notes. All elevations in North American Vertical Datum 1988 (NAVD88)

The City of Lynn's assessment also identified site-specific risks/vulnerabilities such as erosion and shoreline retreat affecting stability of a landfill along Lynn's waterfront due to sea level rise and storm surge. The Lynn Coastal Resiliency Assessment is an important planning tool for identifying vulnerabilities and reducing future risks to public health and the environment. The plan highlighted some of the risks specific to contaminated sites, including:

- Erosion/damage of controls (i.e. damage of a cap preventing contact with contaminated soils)
- Remediation systems such as groundwater treatment may also be damaged by storms or flooding

Further upstream in the Saugus River, the Saugus River Watershed Council and the National Park Service worked in partnership to develop climate adaptation and mitigation strategies to prevent potential pollution to the river from the historic contaminated slag pile located on the banks of the Saugus River at the Saugus Iron Works. This site is located at the upper limit of tidal influence in the Saugus River.

Climate adaptation and mitigation efforts at this important site included identifying strategies to protect the natural resources of the Saugus River from potential arsenic contamination associated with the historic slag pile which is located adjacent to the river. The National Park Service identified the need to develop and implement proactive protections for this capped former waste site as the highest environmental priority for climate adaptation strategies.

Rising seas combined with coastal storm surge also underscore the importance of identifying additional waterfront sites in Saugus that pose potential risks to natural resources in the context of climate change. Coastal landfills such as the former GE landfill, former Dewey Daggett landfill, and the current Wheelabrator Saugus ash landfill are at particular risk for erosion from predicted sea level rise, increasingly intense coastal storms,

and potentially damaging storm surge. Strategies are needed to protect coastal resources from potential leaching or erosion of contaminated materials from these sites.

Protecting Saugus' open spaces in the context of climate change will also require proactive efforts to protect parks, wetlands and waterfront properties from potential damage associated with extreme rainstorms, sea level rise, and coastal storm surge. The salt marshes in the Rumney Marshes Area of Critical Environmental Concern and the fringing marshes along the Saugus River provide a valuable buffer that helps to minimizing flood risks to waterfront open spaces and neighborhoods. Protecting these wetlands and conserving any existing open spaces and vegetated buffers along the waterfront are crucial to promoting coastal resilience in Saugus.

Section 5: Inventory of Lands of Conservation & 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 16: Saugus 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 Town of Saugus.

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 Saugus is the beginning stage of fully understanding what resources the Town 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 City/Town received state or federal monies for the improvement or purchase of the land. Typically, land owned by other Town agencies or the local school system should not be presumed to be permanently protected.

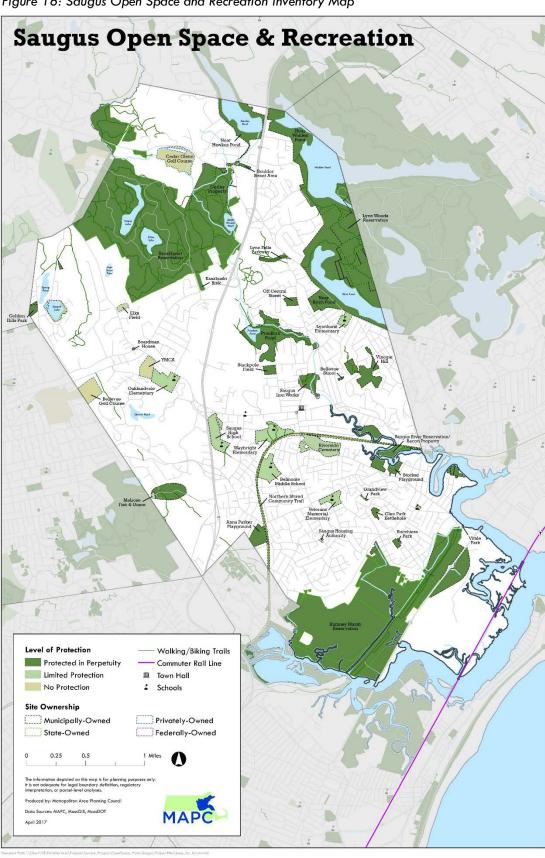


Figure 16: Saugus Open Space and Recreation Inventory Map

During the update process for this plan, a GIS analysis was conducted to determine the amount of Saugus' open space that is protected in perpetuity. The data for this analysis was provided by the Commonwealth of Massachusetts via the Office of Geographic and Environmental Information (MassGIS). The analysis results show that over 90% of the total open space acreage in Saugus has been protected in perpetuity as open space.

Inventory of Open Space and Recreation Resources

The inventory matrix in Figure 17 includes over 50 sites covering more than 2,000 acres of conservation and recreation land owned and managed either by the Town of Saugus, Department of Conservation and Recreation (DCR), the National Park Service, or private entities. This includes some cemetery land and stormwater management parcels managed by the Town.

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 parcel. May be the same as the owner.
- **Primary Purpose** Details the main uses for the site.
- 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. Cemeteries and other similar
 lands are presumed to have no recreational potential.
- Condition Identifies the site condition (excellent, good, fair, or poor). Townowned open spaces and parks were surveyed to obtain a general sense of the condition of the property and any facilities located on it.
- Public Access Indicates if the public can access the site.
- Zoning District Identifies the zoning district in which the parcel is located. Given the absence of an accurate zoning map for Saugus, only the general and overlay districts are listed (R Residential, B Business, I Industrial, HMMUOD Historic Mills Mixed Use Overlay District, WMUOD Waterfront Mixed Use Overlay District).
- Level of Protection Indicates if the site, either by virtue of its zoning, 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.
- **Grant Program** Where applicable, identifies the source of grant funding for the acquisition or maintenance of the parcel.
- **Deed Restrictions** For sites that are permanently protected, identifies the mechanism by which the site is protected.
- GIS 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 17: Saugus Open Space and Recreation Inventory Matrix

Name	Owner	Manager	Primary Purpose	Recreation Potential	Condition	Public Access	Zoning District	Level of Protection	Grant Program	Deed Restriction	GIS Acres
	'			OWNER - 1	OWN OF SAU	GUS		<u>'</u>			
Anna Parker Playground	Town of Saugus	Department of Public Works & Youth and Recreation Department	Recreation	Active - soccer, playground, tennis, basketball	Excellent	Yes	R	Permanently Protected	None	Article 97	12.26
Ballard School	Town of Saugus	School Department	Recreation	Active - playground	Good	Yes	R	Limited	None	None	0.66
Bellevue Street	Town of Saugus	Conservation Commission	Conservation	Passive	N/A	Yes	R	Permanently Protected	None	Article 97	0.48
Belmonte Middle School	Town of Saugus	School Department & Department of Public Works	Recreation	Active - baseball, track, soccer, tennis	Excellent	Yes	I	Limited	None	None	16.94
Boulder Street Area	Town of Saugus	Conservation Commission	Conservation	Potential for passive use	N/A	Yes	R	Permanently Protected	None	Article 97	3.11
Bucchiere (Bristow Street) Park	Town of Saugus	Youth and Recreation Department	Recreation	Active - playground, basketball	Excellent	Yes	R	Permanently Protected	None	Article 97	2.38
Curley Property	Town of Saugus	None	Conservation	Passive	N/A	Yes	R	Permanently Protected	None	Article 97	7.11
David C. Penny Memorial Landing	Town of Saugus	Department of Public Works	Recreation	Passive - kayak Iaunch	Good	Yes	R	Limited	None	None	0.24
Evans Elementary School	Town of Saugus	School Department	Recreation	Active - playground, tennis, boxing	Good	Yes	R	Limited	None	None	2.57
Glen Park Kettlehole	Town of Saugus	Conservation Commission	Conservation	Passive	N/A	Yes	R	Permanently Protected	None	Article 97	2.53

Name	Owner	Manager	Primary Purpose	Recreation Potential	Condition	Public Access	Zoning District	Level of Protection	Grant Program	Deed Restriction	GIS Acres
Golden Hills	Town of Saugus	Department of Public Works	Conservation	Passive	N/A	Yes	R	Permanently Protected	None	Article 97	3.12
Golden Hills Playground	Town of Saugus	Playground Commission	Recreation	Active - playground	Fair	Yes	R	Permanently Protected	None	Article 97	0.78
Golden Hills Pond Park	Town of Saugus	None	Conservation	Passive	N/A	Limited (Residents Only)	R	Limited	None	None	4.06
Grandview Park	Town of Saugus	Youth and Recreation Department	Recreation	Passive	Fair	Yes	R	Permanently Protected	None	Article 97	0.63
Lynn Fells Parkway	Town of Saugus	Conservation Commission	Conservation	Passive	Good	Yes	R	Permanently Protected	None	Conservation Restriction	4.52
Lynnhurst Elementary School	Town of Saugus	School Department	Recreation	Active - playground, softball	Good	Yes	R	Limited	None	None	7.38
Oaklandvale School	Town of Saugus	School Department	Recreation	Active - playground, basketball	Good	Yes	R	Limited	None	None	16.52
Off Central Street	Town of Saugus	Conservation Commission	Conservation	Passive	N/A	No	R	Permanently Protected	None	Article 97	4.28
Off Ella Street	Town of Saugus	Conservation Commission	Conservation	Passive	N/A	No	R	Permanently Protected	None	Article 97	9.75
Old Parish Cemetery	Town of Saugus	Cemetery Commission	Historical/ Cultural	None	Good	Yes	В	Limited	None	None	0.19
Other Conservation Land	Town of Saugus	Conservation Commission	Conservation	Passive	N/A	Some	Varies	Permanently Protected	None	Article 97	27.34
Pendleton Properties	Town of Saugus	Conservation Commission	Conservation	Passive	N/A	Yes	R	Permanently Protected	None	Article 97	6.37

Name	Owner	Manager	Primary Purpose	Recreation Potential	Condition	Public Access	Zoning District	Level of Protection	Grant Program	Deed Restriction	GIS Acres
Prankers Pond	Town of Saugus	Conservation Commission	Recreation and Conservation	Passive - trail	Fair	Yes	В	Permanently Protected	State Self-Help	Article 97	55.39
Vinegar Hill/ Procopio Property	Town of Saugus	None	Conservation	Passive - trail	N/A	Yes	R	Permanently Protected	None	Article 97	23.44
Riverside Cemetery	Town of Saugus	Cemetery Commission	Historical/ Cultural	None	Excellent	Yes	R	Limited	None	None	22.14
Rumney Marsh Reservation	Town of Saugus	DCR - Division of State Parks and Recreation	Conservation	Passive	Good	Yes	I, WMUOD	Permanently Protected	None	Article 97	68.16
Salters Mill	Town of Saugus	Conservation Commission	Conservation	Passive	N/A	Yes	I, HMMUOD	Permanently Protected	State Self-help	Article 97	1.44
Saugus High School	Town of Saugus	School Department	Recreation	Active - baseball, softball, fields	Fair	Yes	R	Limited	None	None	19.49
Saugus Housing Authority	Town of Saugus	Saugus Housing Authority	Historical/ Cultural	None	Good	Yes	R	Limited	None	None	0.52
Stackpole Field	Town of Saugus	Department of Public Works & Youth and Recreation Department	Recreation	Active - football, baseball, fields	Fair	Yes	R	Permanently Protected	None	Article 97	5.31
Stocker Playground	Town of Saugus	Department of Public Works & Youth and Recreation Department	Recreation	Active - baseball, basketball	Poor	Yes	R	Permanently Protected	Strategic Urban Recreation Facilities	Article 97	4.86
Summit Road	Town of Saugus	Conservation Commission	Conservation	Passive	N/A	Yes	R	Permanently Protected	State Self-help	Article 97	0.79
Veterans Memorial Playground	Town of Saugus	School Department	Recreation	Active - playground, field	Excellent	Yes	R	Limited	None	None	8.59
Vitale Park and Lobsterman's Landing	Town of Saugus	Department of Public Works & Harbor Master	Recreation	Passive	Excellent	Yes	I	Permanently Protected	None	Article 97	0.15

Name	Owner	Manager	Primary Purpose	Recreation Potential	Condition	Public Access	Zoning District	Level of Protection	Grant Program	Deed Restriction	GIS Acres
Waybright School	Town of Saugus	School Department	Recreation	Active - playground, soccer, softball	Fair	Yes	R	Limited	None	None	18.62
				OWI	NER - OTHER						
Bellevue Golf Course	Bellevue Golf Club	Bellevue Golf Club	Recreation	Active - golf	Unknown	Limited (Members Only)	R	None	None	None	16.12
Boardman House	Historic New England	Historic New England	Historical/ Cultural	None	Good	No	В	Permanently Protected	None	National Historic Landmark	0.24
Breakheart Reservation	Francis and Jean Meehan	DCR - Division of MassParks	Recreation and Conservation	Passive	Good	Yes	R	Permanently Protected	None	Easement	0.11
Breakheart Reservation	DCR - Division of MassParks	DCR - Division of MassParks	Recreation and Conservation	Passive - trails, swimming	Good	Yes	R	Permanently Protected	None	Article 97	613.08
Cedar Glenn Golf Course	Cedar Glenn Golf Club	Cedar Glenn Golf Club	Recreation	Active - golf	Unknown	Limited (Members Only)	R	None	None	None	29.30
Elks Field	Benevolent Protective Order of Elks	Benevolent Protective Order of Elks	Recreation	Active - field	Unknown	Limited (Members Only)	R	None	None	None	2.53
Kasabuski Rink	DCR	Town of Saugus	Recreation	Active - skating rink, baseball	Fair	Yes	R	Permanently Protected	None	Article 97	3.25
Lynn Woods Reservation	DCR - Division of MassParks	DCR - Division of MassParks	Recreation and Conservation	Passive	Fair/Good	Yes	R	Permanently Protected	None	Article 97	49.27
Malden Anglers Pond	Malden Anglers	Malden Anglers	Recreation	Active - fish & game	Unknown	Limited (Members Only)	R	Unknown	None	None	4.50
Melrose Fish & Game	Melrose Fish & Game	Melrose Fish & Game	Recreation	Active - fish & game	Unknown	Limited (Members Only)	R	None	None	None	0.88

Name	Owner	Manager	Primary Purpose	Recreation Potential	Condition	Public Access	Zoning District	Level of Protection	Grant Program	Deed Restriction	GIS Acres
Near Birch Pond	City of Lynn	Town of Saugus DPW	Water Supply Protection	None	N/A	No	R	Permanently Protected	None	Surface Water Protection Area	178.32
Near Hawkes Pond	City of Lynn	Town of Saugus DPW	Water Supply Protection	None	N/A	No	R	Permanently Protected	None	Surface Water Protection Area	61.59
Near Walden Pond	City of Lynn	Town of Saugus DPW	Water Supply Protection	None	N/A	No	R	Permanently Protected	None	Surface Water Protection Area	197.29
Near Walden Pond	Francis and Jean Meehan	DCR - Division of MassParks	Recreation and Conservation	Passive	Unknown	Yes	R	Permanently Protected	None	Easement	0.01
Off Main Street	The Residences at Stevens Pond	The Residences at Stevens Pond	Recreation and Conservation	Passive - potential for trails	Good	Yes	R	Permanently Protected	None	Conservation Restriction	41.39
Rumney Marsh Reservation	DCR - Division of MassParks	DCR - Division of MassParks	Recreation and Conservation	Passive - trails	Good	Yes	I	Permanently Protected	None	Article 97	459.51
Rumney Marsh Reservation	Saugus Italian American Club	DCR - Division of MassParks	Conservation	None	Unknown	No	I	Permanently Protected	None	Conservation Restriction	459.51
Saugus Iron Works	National Park Service	National Park Service	Historical/ Cultural	Passive - trails	Excellent	Yes	R	Permanently Protected	None	National Historic Landmark	13.43
Saugus River Reservation/ Bacon Property	DCR - Division of MassParks	DCR - Division of MassParks	Other	Passive	N/A	Yes	R	Permanently Protected	None	Article 97	8.36
YMCA	YMCA	YMCA	Recreation	Active - gym	Excellent	Limited (Members Only)	R	None	None	None	2.02

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

Article 97 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 at Town Meeting in support of the disposition, a 2/3 vote of the Massachusetts Legislature in support of the disposition, they must demonstrate compliance with applicable funding sources, and the municipality must file an Environmental Notification Form (ENF) with the Massachusetts Environmental Policy Act (MEPA). During correspondence with Melissa Cryan of the Division of Conservation Services, she confirmed that land dedicated to recreation or conservation purposes is protected by Article 97, which means that the land is permanently protected.

MassGIS considers a parcel to be permanently protected if it is recorded in a deed or other official document. Land is considered protected in perpetuity if it is deeded to and managed by the local Conservation or Parks & Recreation Commission 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.

As previously mentioned, over 90% of the open space land in Saugus is permanently protected. The vast majority of this protected land has such protection because of Article 97. This includes major State-owned properties such as Breakheart Reservation and Rumney Marsh, as well as Town-owned conservation properties, Vinegar Hill and Prankers Pond, and Town-owned recreation properties, Anna Parker Playground and Bucchiere (Bristow Street) Park.

Another means of permanently protecting land is through a conservation restriction. A conservation restriction is an agreement that is bound legally between a landowner and a "holder," or grantee. The landowner agrees to limit the amount and/or use of a specific property in order to protect its unique or specific conservation values. A specified amount of time for the conservation restriction can be noted, or the conservation restriction can be in perpetuity. A conservation restriction is recorded at the Registry of Deeds. In Saugus, the State's Department of Conservation and Recreation (DCR) - Division of MassParks holds a conservation restriction on the Lynn Fells Parkway parcel, which is owned by the Town of Saugus and managed by the Town's Conservation Commission. The Division of MassParks also manages and holds a conservation restriction on a parcel of Rumney Marsh that is owned by the Saugus Italian American Club.

As mentioned in the Water Resources section of this plan, the Saugus Conservation Commission holds a conservation restriction on a 41.39-acre parcel of land referred to as "Off Main Street." It is privately owned by the Residences at Stevens Pond, a surrounding residential development, however the Town of Saugus can request permission to provide and maintain trails on the site.

A similar means of land protection is through an easement. An easement is typically listed on a property deed and allows permanent access to a property for a specific purpose, such as for walking trails. It is a right of use, not a right of possession. DCR's Division of MassParks manages and holds easements on three parcels of land owned by the Meehan Family. Two of these parcels are a part of Breakheart Reservation, and another is adjacent to the City of Lynn's water protection land near Walden Pond.

With the exception of the small parcel managed by DCR, the City of Lynn's water protection land is managed by Saugus' Department of Public Works. This land is afforded protection because it is a part of a Surface Water Supply Protection Area. The area around Walden Pond is within Zone A and the areas around Birch and Hawkes Ponds are within Zone B.

Lastly, the Saugus Iron Works, which is owned and managed by the National Parks Service, and the Boardman House, which is owned and managed by the nonprofit Historic New England, are permanently protected due to their National Historic Landmarks status.

Limited Protection

Parcels 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 Saugus, this includes all school properties, the Riverside and Old Parish Cemeteries, and a parcel owned by the Saugus Housing Authority. It also includes Golden Hills Pond Park, which is owned by the Town of Saugus but only accessible to surrounding residents, and David C. Penny Memorial Landing, which is managed by Saugus's Department of Public Works.

Massachusetts General Law Chapter 61, 61A, and 61B Programs encourages preservation of agricultural (61A), recreation (61B), and forest land (61) in Massachusetts for ten-year terms. Landowners can ensure the long-term protection of their property by receiving a tax benefit if they agree to the terms of Chapter 61. If an owner wants to take property out of Chapter 61 designation, the Town can recover the tax benefits given and has the right of first refusal to purchase the property if the land is sold for residential, commercial, or industrial purposes. There are no properties in Saugus enrolled in the Chapter 61, 61A, or 61B Programs.

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 Saugus has no protection. Sites with this categorization include the YMCA, Elks Field, and the two golf courses.

Parks and Open Space Equity

Mapped in Figure 4, the Town of Saugus has one block group that meets Environmental Justice (EJ) criteria. This is due to the area's annual median household income, which is less than 65% of the statewide median. This area—bounded by Route 1 to the west, Main Street to the north, Central Street to the East, and Adams Avenue and Beech Street to the south—is served by a number of open spaces. Within this EJ area are Saugus High School, Belmonte Middle School, and Waybright Elementary School, which all have large open spaces with active recreation facilities. Further, the Northern Strand Community Trail passes directly through this block group and is used by residents and visitors of all ages for walking and biking.

On a whole, open space is well distributed throughout Saugus, though different areas contain different opportunities for either passive or active recreation. For example, while Saugus Center lacks any major conservation land, it is the location of many schools which all have active recreation facilities. Alternatively, while North Saugus lacks any ball fields or courts, it has an incredible wealth of passive recreational opportunities, including Breakheart Reservation and the Curley Property.

Section 6: Community Vision

Description of Process

Open space and recreation planning in Saugus is conducted in a cooperative effort between a number of Town departments and commissions, including the Youth and Recreation Department, Planning and Development Department, Department of Public Works, School Department, and Conservation Commission. Further, the Town collaborates with outside organizations, including the National Park Service and local nonprofits such as Saugus River Watershed Council (SRWC) and Saugus Action Volunteers for the Environment (SAVE), whenever possible on matters pertaining to open space.

During this Open Space and Recreation Plan process, the Open Space and Recreation Plan Committee, whose members represent the open space stakeholders in Saugus, met regularly with Metropolitan Area Planning Council (MAPC) staff to review and contribute to elements of the plan and assist with community engagement. In order to bring in the larger Saugus community, MAPC and the Town of Saugus held a Community Forum to better understand how residents are using the town's open space and recreation facilities and what their suggestions are for improving them. At this forum, attendees also weighed in on the plan's goals and objectives.

In order to address both the fact that Saugus is an aging community and that there are multiple Saugus Housing Authority properties for seniors in the town's Environmental Justice block group, a focus group was held for seniors at the Saugus Senior Center. This conversation addressed ways in which the Town of Saugus can better serve its senior population in terms of access to open space facilities and programming available.

Statement of Open Space and Recreation Goals

Saugus is endowed with a wealth of open space and recreational resources. These resources range from small neighborhood parks to massive conservation areas, and even a National Park. This balance helps provide for a high quality of life for Saugus residents of all ages, and also creates unique destinations for outside visitors. It is important to safeguard and maintain these resources, as well as identify opportunities for the addition of new resources in the face of development pressures.

The Town of Saugus has developed six goals upon which this Open Space and Recreation Plan is based:

- 1. Protect and preserve critical natural areas in Saugus from future development.
- 2. Promote public awareness of and education about Saugus' open space and recreation assets.
- 3. Maintain and improve opportunities for passive recreation on conservation lands and throughout Saugus.

- 4. Maintain and enhance active recreation facilities and associated programming.
- 5. Improve the accessibility of both passive and active recreational sites for the elderly and persons with disabilities.
- 6. Continue to expand and support Town efforts to eliminate illegal dumping and other types of pollution.

Section 7: Analysis of Needs

Introduction

The Town of Saugus has a unique quality with regards to its location and amenities. While the community is located in close vicinity to the City of Boston and almost all of its developable land has been used, it has some of the most diverse and fragile resources of any municipality in the Boston region. Breakheart Reservation and Rumney Marsh stand out as breathtaking natural resources, but other smaller spaces like the Saugus Iron Works site and Vinegar Hill hold an equal amount of affection amongst local residents and visitors alike.

Even with active and dedicated Town entities and local nonprofit organizations, there is work to be done to both protect Saugus' open space resources and ensure that they are well-maintained. Doing this work will help to ensure that current and future generations of Saugus residents will be able to enjoy the open space and natural resources that make the community unique.

Summary of Resource Protection Needs

Saugus is fortunate that the majority of its open space and recreation lands are permanently protected from future development, whether due to protection through Article 97 status, the presence of a conservation restriction or easement, or through other means. Though these protected sites include very large and environmentally sensitive areas such as Rumney Marsh and Breakheart Reservation, there are other smaller sites, and sites along the borders of larger sites, that would also benefit from permanent protection.

Some of the areas that should be prioritized for future protection are those within Areas of Critical Conservation (ACEC). Saugus has two designated ACECs at least partially within the town: Rumney Marsh and Golden Hills. Approximately 500 acres of Golden Hills was designated as an ACEC in 1987, and almost 3,000 acres of Rumney Marsh was designated a year later. While much of Rumney Marsh is owned by the Commonwealth and permanently protected, no areas within Golden Hills have permanent protection status. The Town should consider acquiring land within this ACEC as it becomes available.

Other areas that would benefit from permanent protection status include those within the BioMap2 Core Habitat and Critical Natural Landscape that currently lack it. BioMap2 Core Habitat areas are critical for the long-term persistence of rare species and other Species of Conservation Concern, and contain a wide diversity of natural resource communities and intact ecosystems. Most significantly, this includes parcels abutting Breakheart Reservation that contain important wildlife and habitat areas.

BioMap2 Critical Natural Landscape areas are large blocks of landscape that provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience in a changing climate. In Saugus, this includes much of the land adjacent to the mouth of the Saugus River. While some of this land is permanently protected, the Town of Saugus should consider acquiring

additional adjacent areas that remain unprotected. It should also consider acquiring land along the river corridor upstream, such as on Kimball Street and near the Historic Mill District. This would not only help ensure natural resource protection, but also open up more land for recreational opportunities.

Successful protection of the Saugus River and its surrounding floodplains and watershed, one of the major natural assets of the Town of Saugus, is dependent on a regional approach from all of the communities in the watershed. The Saugus River Watershed Council (SRWC), made up of residents from Saugus, Lynn, Revere, Malden, Lynnfield and Wakefield, is committed to working closely with the Conservation Commission on this endeavor. Since its inception in 1991, the Council has worked to protect and restore the natural resources of the Saugus River watershed, which includes all of Saugus and portions of 10 other surrounding communities.

The tidal influence of Rumney Marsh extends over an expansive salt marsh in East Saugus, up the Saugus River, to a point near the Saugus Iron Works. The National Parks Service is considering a project to restore a few acres of a rare freshwater tidal marsh along the Saugus River; freshwater tidal marshes are the habitat of the Estuary Arrowhead, which has not seen in Saugus since 1921. A project of this nature is important because, while freshwater tidal marshes used to occur in limited areas along most coastal rivers, many have been lost as rivers were dammed and flow altered over the past 350 years. Natural communities such as a freshwater tidal marsh support a variety of rare and more common species.

As mentioned in the Environmental Challenges section of this plan, Saugus has had a variety of issues related to water quality. A number of waterbodies in Saugus, including much the Saugus River, are considered to be impaired or threatened because of a variety of mostly nonpoint source pollutants. Working with the SRWC, the Town should look to find ways to address those sources of pollution in order to improve the water quality of impacted surface water bodies.

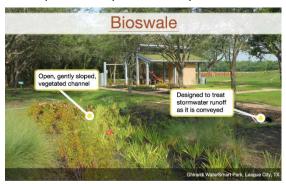
Additionally, the Town should continue to work with the SRWC to monitor and report on water quality conditions in Saugus and throughout the watershed. This includes ensuring removal of combined sewer overflows, mitigating sewer discharges, and reducing stormwater pollution. To reduce stormwater pollution, the Town of Saugus should consider exploring 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.⁷⁷

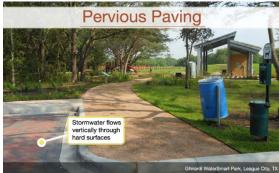
With the assistance of volunteers, the Town should also work to control the spread of invasive species, such as phragmites, that may alter the habitat and occupy space where native species would otherwise be present. Monitoring conservation land and removing non-native species before they become a problem and impact native species is important to the health and sustainability of natural resource areas in Saugus.

⁷⁷ "Urban Runoff: Low Impact Development," US EPA, https://www.epa.gov/nps/urban-runoff-low-impact-development

In order to acquire additional land for conservation and assist in resource protection, the Town of Saugus should seek out grant programs offered by the Commonwealth's Division of Conservation Services or the National Parks Service. The Town can also partner with other organizations, such as -SRWC or Saugus Action Volunteers for the Environment (SAVE), to pursue grant funding for local conservation projects.

Low-Impact Development Techniques⁷⁸





Summary of Community's Needs

Enhancing, maintaining, and preserving the recreation amenities in Saugus is a major goal of this Open Space and Recreation Plan. The community is fortunate to have a number of active recreation facilities (see Figure 18), as well as passive recreation areas.

Figure 18: Existing Active Recreation Facilities in Saugus

Type of Facility	Location in Saugus
Baseball/softball field	Belmonte Middle School (World Series Park), Elks Field, Kasabuski Rink, Saugus High School, Stackpole Field, Stocker Playground, Veterans Memorial School
Soccer/football field	Anna Parker Playground, Saugus High School, Stackpole Field
Basketball court	Anna Parker Playground, Bucchiere (Bristow Street) Park, Oaklandvale School, Saugus High School
Tennis court	Saugus High School, Stocker Playground
Playground	Ballard School, Breakheart Reservation, Evans Elementary School, Golden Hills Playground, Lynnhurst Elementary School, Oaklandvale School, Stackpole Field, Stocker Playground, Veterans Memorial Park, Waybright School
Swimming	Breakheart Reservation (Pearce and Silver Lakes), YMCA
Ice rink	Kasabuski Rink
Bicycle path	Northern Strand Community Trail

⁷⁸ Photo source: http://www.h-gac.com/community/low-impact-development/gallery.aspx

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Volleyball court	Saugus High School

The Division of Conservation Services (DCS) Open Space Planner's Workbook promotes the retention of open space for conservation and recreational purposes. Beyond the general requirements, however, no specific standards have been established. Rather, it has been left to the local governments to decide how much land should be set aside as open space. The National Recreation and Parks Association (NRPA) established definitions for recreational land necessary to serve a given population. Figure 19 shows a breakdown for selected facilities.

The often cited standard is that a local park system should, at a minimum, be composed of a "core" system of parklands with a total of 6.25 to 10.5 acres of designated, "close-to-home" open space per 1,000 people. Based on this standard and Saugus's population of approximately 27,000 people, the town should have between 169 and 284 acres of developed open space for parks and recreation areas. Saugus' total dedicated acreage for public active and passive parks, including school facilities, is over 2,000 acres, which is well above that standard. Active facilities alone make up approximately 175 acres.

Figure 19: National Recreation and Park Association (NRPA) Standards ⁷⁵	Fiaure	19: National	Recreation of	and Park .	Association	(NRPA) Standards ⁷⁹
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Facility	Area Needed	Units per Population	Service Area
Baseball field	1.2 acres minimum	1 per 5,000	1/4 - 1/2 mile
Basketball court	Basketball court 5,040 - 7,280 feet ²		½ - ½ mile
Football field	1.5 acres minimum	1 per 20,000	15 -30 minute travel
Ice hockey	22,000 feet ²	1 per 100,000	½ - 1 hour
Multi-use court	9,840 feet ²	1 per 10,000	1/4 - 1/2 mile
Soccer field	1.7 - 2.1 acres	1 per 10,000	1 - 2 mile(s)
Softball field	1.5 - 2.1 acres	1 per 5,000	1/4 - 1/2 mile
Swimming pool	1.5 - 2 acres	1 per 20,000	15 -30 minute travel
Tennis Court	7,200 feet ² minimum	1 per 2,000	½ - ½ mile
Trail	n/a	1 trail system per region	n/a
Volleyball court	4,000 feet ² minimum	1 per 5,000	½ - ½ mile

In regard to the Town's active recreation facilities, most Community Forum attendees tend to visit them about one to five times a year. This number increases more so for sites with regular programming and games like Anna Parker Playground, Stackpole Field, and the school fields and playgrounds. Some attendees had never heard of some sites, including

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 $^{^{79}}$ "Recreation, Park, and Open Space Standards and Guidelines," Northern Arizona University, http://www.prm.nau.edu/prm423/recreation_standards.htm

Golden Hills Playground and Stocker Playground, which may point to a lack of signage or information about their offerings.

Compared to other sites with active recreational opportunities, Stocker Playground received some of the most negative comments. While residents acknowledge its beautiful location along the Saugus River, they expressed concerns about the decrepit condition of the playground equipment and the constant presence of trash. One attendee suggested that a great use of the currently unused courts at Stocker Playground would be for a skateboard park. The site could also benefit from improved signage and an access area for kayaks and canoes. Since this area is currently a hotspot for illegal dumping, the Town should consider installing security cameras and other barriers to prevent access for commercial dumping.

Stocker Playground Conditions





The former Bacon Property located across the Saugus River from Stocker Playground provides a unique opportunity for expanded public access to the natural resources of the Saugus River in the future. This underutilized 8.2 acre site owned by the Massachusetts Department of Conservation and Recreation would be an ideal location for an environmental education center with interpretive information about the Saugus River and passive recreational opportunities. The site would allow for excellent kayak access with its location along the navigable portion of the Saugus River. The property also provides direct links to the Northern Strand multi-use trail.

Community Forum attendees love the Northern Strand Community Trail and the opportunities for walking and biking that it has created in Saugus. However, they identified a number of elements that would help improve it. The most echoed improvement is to pave the Saugus branch of the trail, as has been done in other communities that the trail runs through. The trail currently consists of a gravely substrate that makes it difficult to walk strollers on, and poses accessibility challenges for the elderly and people with disabilities. The trail could also benefit from more lighting for safety, more trash cans, and additional benches. There currently is only one bench at the Revere end of the trail and one bench at the Lynn end.

In terms of passive recreational facilities, Breakheart Reservation is the most utilized and treasured site in Saugus. Residents love hiking and seeing the wildlife here, and

appreciate additional facilities such as the Visitor's Center and dog park. According to one forum attendee, "Breakheart and the Iron Works make Saugus unique." On the other hand, the site receiving the least visitor traffic is the Curley Property. No forum attendee had ever visited this site, and many did not know that it exists. The Town should work with residents to determine how best to utilize this site for passive recreation. In 2014, Special Town Meeting voted on using the Curley Property for a future cemetery site, and though it received majority approval, it did not receive the two-thirds majority it needed.

Saugus residents have expressed a desire for an additional dog park in Saugus in walkable, residential area. The Town is exploring possible sites to locate a dog park and intends to work with the community to find an ideal space.

Vinegar Hill is also a cherished resource in Saugus due to its beautiful views and fascinating history. However, attendees pointed out that it is hard to access and in need of signage. Further, the three parking spots that were designated for users are constantly taken by construction vehicles. Fortunately, Saugus Action Volunteers for the Environment (SAVE) is currently working to maintain the trails to the summit, install signage, and conduct outreach about this site and its historical significance.

Saugus residents appreciate the beauty of Rumney Marsh and its significance as a unique ecological resource, which only exacerbates their concerns about the Wheelabrator Saugus facility. Community Forum attendees felt that the incinerated ash, both emitted into the air and buried in the landfill, pose a serious threat to both the Rumney Marsh ACEC and public health. Residents mentioned not wanting to visit Rumney Marsh because of the perception that the area is covered with toxic ash that is dangerous to breathe in. Forum attendees believe that it is in Saugus' best interest to permanently close the landfill, especially in the face of sea level rise and increased storm surge associated with global climate change.

The focus group with Saugus seniors identified ways that the Town can better meet the needs of older adults and people with disabilities. While focus group participants acknowledged that Saugus is better than other communities at meeting the needs of these populations, there is a need for better crosswalks, more curbcuts, improved sidewalks, and more accessible push buttons on doors. As it relates to open space areas, seniors and those with disabilities would benefit from more benches, paved pathways around parks, sufficient shade trees, and more age-appropriate programming such as bocce, shuffleboard, corn hole, and walking groups. Participants love the Saugus Senior Center and its recreation offerings, and expressed that it would be a great place to put a paved walking path. Specific recommendations for improving accessibility at Town-owned open spaces are listed in Appendix 1.

The Statewide Comprehensive Outdoor Recreation Plan (SCORP) is the state'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 2012, 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 identified by the Massachusetts SCORP and the ways that this OSRP aims to address them are shown in Figure 20.

Figure 20: SCORP Goals

SC	ORP Goal	Relation to Saugus OSRP
1.	Increase the availability of all types of trails for recreation	Suggested trail improvements to Northern Strand Community Trail and Vinegar Hill
2.	Increase the availability of water- based recreation	Suggested opportunities for water-based recreation on Saugus River, including a kayak/canoe launch at Stocker Playground
3.	Invest in recreation and conservation areas that are close to home for short visits	Many neighborhood parks and conservation areas in Saugus; suggested additions of skateboard park at Stocker Playground and a local dog park
4.	Invest in racially, economically, and age diverse neighborhoods given their projected increase in participation in outdoor recreation	Targeted outreach to seniors as a part of this process; suggested improvements to make sites more accessible to seniors and people with disabilities and to implement age-friendly programming

Summary of Management Needs

Communication amongst the regulatory and planning authorities in the Town of Saugus will be imperative to the success of this Open Space and Recreation Plan. This will require regular cooperation amongst the Board of Selectmen, Conservation Commission, Planning Board, Board of Appeals, Board of Health, Youth and Recreation Department, and others. In order to ensure that this plan does not just sit on a shelf, an entity or board should take charge of implementing the recommendations found in the Seven-Year Action Plan. Ideally, such an entity should be an Open Space and Recreation Committee appointed by the Town Manager that convenes periodically.

The Town of Saugus should continue to partner with local nonprofit organizations to help implement elements of this plan. These relationships are beneficial and important for a myriad a reasons. Not only does working with such organizations help ease the burden on Town Departments such as Public Works and Youth and Recreation, as well as volunteer committees such as the Conservation Commission, it also opens up eligibility for grant funds that only nonprofits can apply for. The Town should also encourage the creation of additional "Friends of" groups, similar to Friends of Breakheart Reservation, which would transfer property management from the Town to such a group that could actively manage a piece of land assigned by the Conservation Commission.

The Town of Saugus is fortunate to have a Youth and Recreation Department with three full-time and one-part time staff members, seasonal paid employees, and a Youth and Recreation Commission made up of volunteers. Participation in the athletic programs offered in Saugus is strong, though it is the general feeling of residents that there is not

enough good quality field space. Programs and sports that the Youth and Recreation Department is involved with ranges from summer camp programs, to afterschool programs, Town and travel leagues, and even a theater programs.

The Youth and Recreation Department collaborates with the Department of Public Works for the maintenance and upkeep of local parks and playgrounds. Allocating sufficient funding and manpower to all of these sites in Saugus is an issue as in most communities. The Youth and Recreation Department issues permits for fields and coordinates the use of Town fields. The ongoing goal of the Youth and Recreation Director is to maintain the current operational budget and increase program revenues.

Section 8: Goals and Objectives

The following goals and objectives were created by the Open Space and Recreation Plan Committee, and feedback from the Community Forum has been incorporated:

Goal 1: Protect and preserve critical natural areas in Saugus from future development.

- Objective 1.1: Create and update a prioritized inventory of lands of interest for recreation, conservation, and/or flood protection potential.
- Objective 1.2: Work with local environmental groups to locate lands of interest for conservation and recreation purposes, and to apply for funding to acquire lands.
- Objective 1.3: Support the work of local environmental organizations to monitor habitat and water quality, plan for the impacts of climate change, and advocate for the protection of critical natural areas, particularly in and around Rumney Marsh and the Saugus River.
- Objective 1.4: Use regulatory tools, such as a buffer zone, to protect the Rumney Marsh Area of Critical Environmental Concern (ACEC) and other valuable natural resources such as the Saugus River, Prankers Pond, and Breakheart Reservation.
- Objective 1.5: Educate residents about the Commonwealth's Chapter 61 long-term land protection programs and their benefits for landowners.
- Objective 1.6: Maintain Town-owned open space while supporting the need for future residential development.
- Objective 1.7: Develop a management plan for the Rumney Marshes ACEC in partnership with Revere, Lynn, and the Commonwealth's Department of Conservation and Recreation.

Goal 2: Promote public awareness of and education about Saugus' open space and recreation assets.

- Objective 2.1: Encourage public awareness of Saugus' environmental assets, specifically Rumney Marsh, the Saugus River, and Breakheart Reservation, through educational and recreational programming.
- Objective 2.2: Promote and tap into the educational efforts of local environmental organizations regarding Saugus' natural resources and those of the entire Saugus River Watershed.
- Objective 2.3: Educate residents and visitors about the opportunities for passive recreation (walking, biking, boating, etc.) in Saugus, especially on underutilized sites.
- Objective 2.4: Continue to promote and advertise recreational programming provided by the Youth and Recreation Department.

Goal 3: Maintain and improve opportunities for passive recreation on conservation lands and throughout Saugus.

 Objective 3.1: Maintain existing trail network and develop additional walking trails on conservation sites.

- Objective 3.2: Improve signage to encourage access to and use of trails and conservation sites, specifically in residential areas where access is currently limited.
- Objective 3.3: Map and mark existing trails, their access points, and other passive recreational options on open space sites.
- Objective 3.4: Increase non-vehicular connectivity of the town's open spaces through education, signage, and new connections.
- Objective 3.5: Improve streetscape appearance, as well as comfort and safety, through sidewalk renovations, benches, and shade tree plantings.
- Objective 3.6: Expand opportunities for water-based recreation (such as fishing, boating, and swimming) along the Saugus River and in the town's lakes.
- Objective 3.7: Establish and enhance partnerships with other open space landowners, especially the National Park Service and the Commonwealth's Department of Conservation and Recreation.

Goal 4: Maintain and enhance active recreation facilities and associated programming.

- Objective 4.1: Keep an up-to-date inventory of Saugus' recreation facilities (such as playing fields, courts, and playgrounds) and what the maintenance needs are.
- Objective 4.2: Repair, update, and maintain existing recreation facilities.
- Objective 4.3: Research and apply for funding sources to assist with the maintenance and upgrading of parks and playgrounds.
- Objective 4.4: Continue and expand the Youth and Recreation Department's programming, such as its summer camp, sports teams, and elementary after-school program.
- Objective 4.5: Increase recreational options for adult residents.
- Objective 4.6: Create a dog park in town.
- Objective 4.7: Address recreational needs identified in the 2012 Statewide Comprehensive Outdoor Recreation Plan, such as neighborhood parks in concentrated residential areas.

Goal 5: Improve the accessibility of both passive and active recreational sites for the elderly and persons with disabilities.

- Objective 5.1: Keep an up-to-date inventory of all the accessibility upgrades needed at the town's open space and recreation facilities.
- Objective 5.2: Remove structural barriers at recreation facilities that impede the access of those with disabilities.
- Objective 5.3: Create and improve existing recreation facilities for passive leisure, especially those that are proximate to elderly residential areas.
- Objective 5.4: Develop recreational opportunities and programming for seniors and persons with disabilities in neighborhood park areas where activities may be presently limited to active or children's play.

Goal 6: Continue to expand and support Town efforts to eliminate illegal dumping and other types of pollution.

- Objective 6.1: Expand volunteer programs to assist with the cleanup of sites where illegal trash disposal and dumping is an issue.
- Objective 6.2: Work with Town departments and committees to clarify and execute the enforceable punishments for illegal dumping and polluting.
- Objective 6.3: Promote educational programs regarding the appropriate disposal of hazardous waste materials.
- Objective 6.4: Explore funding opportunities for remediation of polluted sites in town.

Section 9: Seven-Year Action Plan

The Seven-Year Action Plan details the actions and activities that should occur over the next seven years to successfully implement the Saugus Open Space and Recreation Plan. These action items provide specific recommendations for meeting the goals and objectives that were formulated in Section 8. The formation of a committee or board (most likely the Open Space and Recreation Committee mentioned earlier in this plan) will be key to ensuring successful implementation of this plan, and it is this group that will take charge of delegating the recommended responsibilities and actions to Town departments, local nonprofit groups, and other stakeholders. This Committee will also be responsible for public outreach and education regarding actions being taken.

Acronyms for Town parties responsible for implementation of the action items are:

- BOH: Board of Health
- CC: Conservation Commission
- COA: Council on Aging
- COD: Commission on Disability
- DPW: Department of Public Works
- IS: Inspectional Services
- OSRC: Open Space and Recreation Committee

- PB: Planning Board
- SPS: Saugus Public Schools
- SWRD: Solid Waste/Recycling Department
- TM: Town Manager
- TP: Town Planners
- YRD: Youth and Recreation Department

The Action Plan is arranged sequentially beginning with the first goal and the associated objectives and actions to facilitate the achievement of this goal. For each action, a timeframe for when the proposed action should be taken is listed. Short-term recommendations fall within the 2017-2018 timeframe, mid-term recommendations fall within the 2019-2021 timeframe, and long-term recommendations fall within the 2022-2024 timeframe. Recommendations that are ongoing are marked as such.

Acronyms for potential funding sources listed in the Seven-Year Action Plan are:

- <u>CPG: Conservation Partnership Grant through the MA Division of Conservation</u> <u>Services (DCS)</u>
- LAND: Local Acquisitions for Natural Diversity Program through DCS
- LWCF: Land and Water Conservation Fund grant through DCS
- PARC: Parkland Acquisitions and Renovations for Communities through DCS
- RTP: Recreational Trails Program Grant through the MA Department of Conservation and Recreation (DCR)
- MET: Massachusetts Environmental Trust General Grant
- EPA: Environmental Protection Agency Brownfields Grants
- PGP: Essex Heritage Partnership Grant Program
- SEC: Seaport Economic Council Grant Program

Figure 21: Action Plan Map

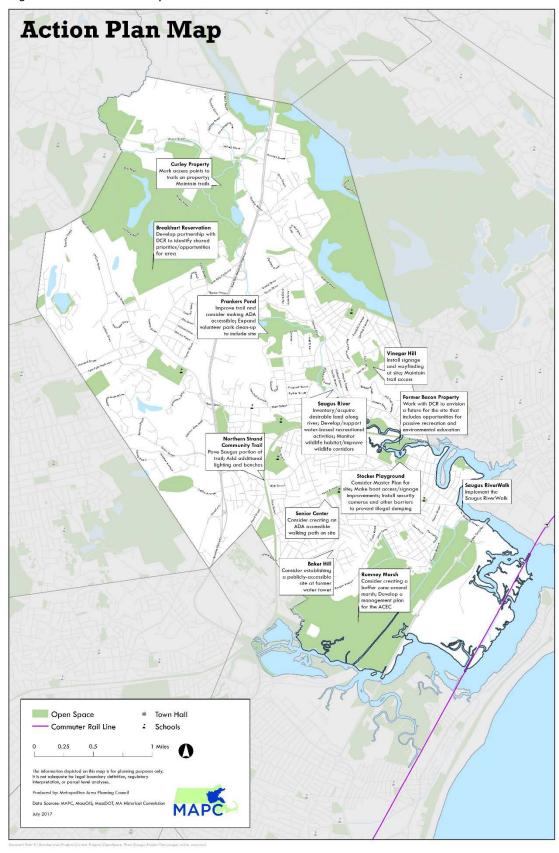


Figure 22: Seven-Year Action Plan Matrix

Goal 1: Protect and preserve critical natural areas in Saugus from future development.								
Objectives/Actions	Responsible Parties	Time Frame	Potential Funding Sources					
Objective 1.1: Create and update a prioritized inventor and/or flood protection potential.	entory of lands of int	erest for reci	eation, conservation,					
Action 1.1.1: Create a ranked inventory of parcels along the Saugus River, adjacent to Breakheart Reservation, and elsewhere that are of interest to the Town for acquisition and are currently undeveloped or desirable to purchase	CC, OSRC	Short- term	LAND, LWF					
Action 1.1.2: Maintain the parcel inventory as necessary	CC, OSRC	Ongoing	N/A					
Action 1.1.3: Work with the Town Manager to select open space parcels that should be protected in perpetuity	CC, OSRC, TM, TP	Ongoing	LAND, LWF					
Objective 1.2: Work with local environmental groups to locate lands of interest for conservation and recreation purposes, and to apply for funding to acquire and manage lands.								
Action 1.2.1: Work with the Saugus River Watershed Council to locate desirable land for acquisition along the Saugus River	CC, OSRC	Ongoing	LAND, CPG, LWF					
Action 1.2.2: Develop a collaborative relationship with the Saugus River Watershed Council in order to maintain the River's edge for public use and flood protection	CC, OSRC	Ongoing	N/A					
Action 1.2.3: Develop working relationships with other communities along the Saugus River for a regional approach to achieving environmental synergy	CC, OSRC	Ongoing	N/A					
Action 1.2.4: Encourage the creation of additional "Friends of" groups to assist with management of conservation sites	CC, OSRC	Mid-term	N/A					
Action 1.2.5: Explore the establishment of a publicly accessible site at the former Baker Hill Water Tower	CC, OSRC, TM, TP	Long- term	LAND, LWF					
Objective 1.3: Support the work of local environment quality, plan for the impacts of climate change, and particularly in and around Rumney Marsh and the S	advocate for the pr							
Action 1.3.1: Work with the Conservation Commission and local environmental nonprofit organizations to increase monitoring of wildlife	СС	Ongoing	MET					
Action 1.3.2: Work with the Saugus River Watershed Council to identify and address sources of pollution impacting waterbodies in town	CC, OSRC, DPW	Mid-term	MET					
Action 1.3.3: With the assistance of volunteers, work to stop the spread of invasive species	СС	Ongoing	MET					

Objective 1.4: Use regulatory tools to protect the Re (ACEC) and other valuable natural resources such as Reservation.								
Action 1.4.1: Consider developing a buffer zone surrounding Rumney Marsh to help protect the resource and its natural functionality	CC, OSRC, TP	Mid-term	MET					
Objective 1.5: Educate residents about the Common programs and their benefits for landowners.	wealth's Chapter 61	long-term la	and protection					
Action 1.5.1: Include information about what Chapter 61 is, who is eligible, and encourage landowners to participate on the Town's website	CC, OSRC	Short- term	N/A					
Action 1.5.2: Have hand-outs about Chapter 61 available in various municipal buildings	CC, OSRC	Short- term	N/A					
Objective 1.6: Maintain Town-owned open space w development.	hile supporting the ne	eed for futur	e residential					
Action 1.6.1: Ensure that new construction follows zoning by-laws which require that a percentage of a parcel be maintained as open space	TP, PB	Short- term	N/A					
Action 1.6.2: Provide studies and documentation that open space, parks, and natural areas increase property values to guide development in such a way that open space is not lost	CC, OSC, TP, PB	Short- term	N/A					
Action 1.6.3: Work with developers and property owners to integrate low-impact development (LID) techniques into the design of their properties	CC, OSC, TP, PB	Mid-term	N/A					
Objective 1.7: Develop a management plan for the Rumney Marshes ACEC.								
Action 1.7.1: Develop a management plan for the Rumney Marshes ACEC in partnership with Revere, Lynn, and the Commonwealth's Department of Conservation and Recreation	CC, OSC, TP	Long- term	MET					
Goal 2: Promote public awareness of and educati	on about Saugus' o _l	pen space a	nd recreation					
Objectives/Actions	Responsible Parties	Time Frame	Potential Funding Sources					
Objective 2.1: Encourage public awareness of Saug the Saugus River, and Breakheart Reservation, throu								
Action 2.1.1: Work with the Saugus Public Schools to encourage outdoor learning for science classes	YRD, SPS	Mid-term	PGP					
Action 2.1.2: Work with the Youth and Recreation Department to develop and support activities along the Saugus River such as paddle boating and rowing	YRD	Short- term	PGP					
Action 2.1.3: Encourage public involvement and seek input regarding areas for preservation and conservation through annual public meetings	cc, osc	Ongoing	N/A					
Objective 2.2: Promote and tap into the educational efforts of local environmental organizations regarding Saugus' natural resources and those of the entire Saugus River Watershed.								

Action 3.1.1: Maintain the trail access to the Vinegar Hill vista site	cc, osc	Ongoing	RTP, LWCF
Objective 3.1: Maintain existing trail network and develop additional walking trails on conservation sites.			
Objectives/Actions	Responsible Parties	Time Frame	Potential Funding Sources
Goal 3: Maintain and improve opportunities for passive recreation on conservation lands and throughout Saugus.			
Action 2.5.2: Consider offering hardcopy and online survey through the Saugus Youth and Recreation website to poll residents of all ages about what recreational programming they want to see in Saugus	YRD	Short- term	N/A
Action 2.5.1: Continue to utilize and update the Saugus Youth and Recreation website to promote and advertise programming	YRD	Ongoing	N/A
Objective 2.5: Continue to promote and advertise re Recreation Department.	ecreational program	ming provide	d by the Youth and
Action 2.3.6: Update the brochure periodically to keep a fresh appearance and include new information	CC, OSC	Long- term	N/A
Action 2.3.5: Encourage the Saugus School System to use the brochure to guide outdoor education	CC, OSC, SPS	Long- term	N/A
Action 2.3.4: Distribute the brochure at schools, Town Hall, Chamber of Commerce, Historical Society, Iron Works, and local businesses	CC, OSC	Mid-term	N/A
Action 2.3.3: Utilize the information from the OSRP to populate a brochure with information on conservation lands and suggested sites; include information on where to park and how to access open space sites	CC, OSC	Mid-term	N/A
Action 2.3.2: Develop and maintain a website to include all necessary information about trails and outdoor opportunities in Saugus for residents and visitors	cc, osc	Short- term	N/A
Action 2.3.1: Consider holding guided walks through Saugus' conservation lands to promote passive recreation and to educate the public about the importance of land preservation	cc, osc	Ongoing	N/A
Objective 2.3: Educate residents and visitors about to biking, boating, etc.) in Saugus, especially on undercommendations.		passive recre	eation (walking,
Action 2.2.2: Improve wildlife corridors, especially along the Saugus River, and educate the public about the importance of contiguous wildlife habitats	cc, osc	Ongoing	MET
Action 2.2.1: Identify and monitor significant wildlife habitats in the Saugus River and Rumney Marsh areas in partnership with local nonprofits	cc, osc	Ongoing	MET

Action 3.1.2: Improve the trail along Prankers Pond and consider creating one that is ADA accessible	cc, osc	Mid-term	RTP, LWCF		
Action 3.1.3: Maintain the trails on the Curley Property	cc, osc	Ongoing	RTP, LWCF		
Action 3.1.4: Implement the Saugus RiverWalk	TM, TP	Ongoing	SEC		
Action 3.1.5: Periodically conduct trail maintenance to ensure trails are walkable and lack major obstructions	cc, osc	Ongoing	RTP, LWCF		
Action 3.1.6: Determine sites where new trails may be appropriate, specifically when they link destinations to town	cc, osc	Ongoing	RTP, LWCF		
Objective 3.2: Improve signage to encourage access specifically in residential areas where access is current.		and conserv	ation sites,		
Action 3.2.1: Work with SAVE to install signage and wayfinding at the Vinegar Hill site that indicates trail access and where to park	cc, osc	Short- term	PGP		
Action 3.2.2: Clearly mark the access points to the Curley Property trails	cc, osc	Short- term	PGP		
Objective 3.3: Map and mark existing trails, their access points, and other passive recreational options on open space sites.					
See Actions 2.3.1 and 2.3.2					
Objective 3.4: Increase non-vehicular connectivity of and new connections.	Objective 3.4: Increase non-vehicular connectivity of the town's open spaces through education, signage, and new connections.				
Action 3.4.1: Facilitate access to parks through pedestrian improvements	TP, DPW	Ongoing	Town capital funds		
Action 3.4.2: Pave the Saugus portion of the Northern Strand Community Trail	TP, DPW	Short- term	RTP, LWCF		
Action 3.4.3: Improve on-street bicycle access in Saugus through the addition of bike lanes and sharrows	TP, DPW	Ongoing	Town capital funds		
Action 3.4.4: Map potential connections between the town's various open spaces and include on the website	TP, CC, OSRC	Short- term	N/A		
Objective 3.5: Improve streetscape appearance, as well as comfort and safety, through sidewalk renovations, benches, and shade tree plantings.					
Action 3.5.1: Provide needed safety and accessibility improvements including sidewalk renovations, updated crosswalks, and more curbcuts	TP, COD, COA, DPW	Ongoing	Town capital funds		
Action 3.5.2: Along frequently traveled pedestrian routes, add benches and sufficient shade tree plantings	TP, COD, COA, DPW	Ongoing	Town capital funds		
Objective 3.6: Expand opportunities for water-based recreation (such as fishing, boating, and swimming) along the Saugus River and in the town's lakes.					

Action 3.6.1: Make canoe/kayak access improvements and add signage at Stocker Playground	CC, OSRC, TP	Mid-term	PGP	
Action 3.6.2: Add interpretive signage at various sites to clearly designate what water-based recreation is allowed	CC, OSRC, TP	Mid-term	PGP	
See Action 2.1.2				
Objective 3.7: Establish and enhance partnerships verthe state and national level.	vith other open space	landowners	, especially those at	
Action 3.7.1: Develop a partnership with the National Park Service identify areas for collaboration in Saugus outside of the Iron Works	CC, OSRC, TP	Ongoing	National Park Service funds	
Action 3.7.2: Develop a partnership with the Commonwealth's Department of Conservation and Recreation (DCR) to identify shared priorities for and ideas for collaboration at Breakheart Reservation and Rumney Marsh	CC, OSRC, TP	Ongoing	N/A	
Action 3.7.3: Work with DCR to envision a future for the former Bacon Property that could include kayak/boat access, connections to the Northern Strand Community Trail, and an environmental education center	CC, OSRC, TP, YRD	Mid-term	N/A	
Goal 4: Maintain and enhance active recreation facilities and associated programming.				
Objectives/Actions	Responsible Parties	Time Frame	Potential Funding Sources	
Objective 4.1: Keep an up-to-date inventory of Saugus' recreation facilities (such as playing fields, courts, and playgrounds) and what the maintenance needs are.				
Action 4.1.1: Create an inventory with each recreation facility listed and specific equipment/resources that are available at each site	YRD	Short- term	N/A	
Action 4.1.2: Develop a maintenance plan for the parks and playgrounds managed by the Youth and Recreation Department	YRD, DPW	Mid-term	Town capital funds	
Objective 4.2: Repair, update, and maintain existing recreation facilities.				
Action 4.2.1: Continue the collaborative relationship between the Youth and Recreation Department and the Department of Public Works to maintain fields and other recreational facilities	YRD, DPW	Ongoing	N/A	
Action 4.2.2: Explore the possibility of conducting a Stocker Playground Master Plan to identify the best uses and a possible design for the site	CC, OSRC, YRD, TP	Long- term	PARC, LWF	
Objective 4.3: Research and apply for funding sources to assist with the maintenance and upgrading of parks and playgrounds.				
		1		

Objective 4.4: Continue and expand the Youth and summer camp, sports teams, and elementary after-s		ent's prograr	mming, such as its	
See Action 2.5.2				
Objective 4.5: Increase recreational options for add	ult residents.			
Action 4.5.1: Work with Youth and Recreation Department to develop an intermural sports league for adults	YRD	Mid-term	N/A	
Action 4.5.2: Incorporate fitness facilities into traditional park equipment	YRD	Mid-term	PARC, LWF	
Objective 4.6: Create a dog park in town.				
Action 4.6.1: Work with Saugus residents to determine the appropriate location for neighborhood dog park	OSRC, YRD, TP	Short- term	PARC, LWF	
Objective 4.7: Address recreational needs identified in the 2012 Statewide Comprehensive Outdoor Recreation Plan, such as neighborhood parks in concentrated residential areas.				
Action 4.7.1: Consider a possible location for a central "common" for Saugus residents to gather	CC, OSRC, YRD, TP	Mid-term	N/A	
Goal 5: Improve the accessibility of both passive and active recreational sites for the elderly and persons with disabilities.				
Objectives/Actions	Responsible Parties	Time Frame	Potential Funding Sources	
Objective 5.1: Keep an up-to-date inventory of all the accessibility upgrades needed at the town's open space and recreation facilities.				
Action 5.1.1: Develop an inventory and prioritize how facilities, parks, and open spaces will be upgraded to meet ADA accessibility	CC, OSRC, YRD, TP, COD, IS, COA	Ongoing	PARC, LWF	
Action 5.1.2: Work with seniors and members of the disability community to consistently update and prioritize the ADA inventory	CC, OSRC, YRD, TP, COD, IS, COA	Ongoing	N/A	
Objective 5.2: Remove structural barriers at recrea disabilities.	tion facilities that imp	ede the acce	ess of those with	
Action 5.2.1: Coordinate ADA compliance with basic maintenance upgrades whenever possible	TP, YRD, COD, DPW, IS, COA	Ongoing	PARC, LWF	
Objective 5.3: Create and improve existing recreat	tion facilities for pass	ive leisure, e	specially those that	
are proximate to elderly residential areas.				
	TP, COA, DPW	Long- term	RTP, LWCF	
are proximate to elderly residential areas. Action 5.3.1: Consider the establishment of an ADA accessible walking path at the Saugus Senior	TP, COA, DPW	_	RTP, LWCF Town capital funds	
are proximate to elderly residential areas. Action 5.3.1: Consider the establishment of an ADA accessible walking path at the Saugus Senior Center Action 5.3.2: Ensure that sites like the Northern Strand Community Trail have sufficient lighting		term		

Action 5.4.1: Evaluate the desire and possible locations for more age-appropriate programming such as bocce, shuffleboard, and corn hole	YRD, COA	Mid-term	N/A	
Action 5.4.2: Work with the Saugus Senior Center to organize a walking group for seniors	COA, YRD	Short- term	N/A	
Action 5.4.3: Continue to reach out to seniors and people with disabilities to understand their recreation needs and how they can best be met	COA, COD, YRD	Ongoing	N/A	
Goal 6: Continue to expand and support Town effort pollution.	forts to eliminate ille	egal dumpin	g and other types	
Objectives/Actions	Responsible Parties	Time Frame	Potential Funding Sources	
Objective 6.1: Expand volunteer programs to assist and dumping is an issue.	with the cleanup of s	ites where ill	egal trash disposal	
Action 6.1.1: Work with the Town Manager and DPW to increase the volunteer park clean-up to twice annually and incorporate additional sites like Prankers Pond	TM, DPW	Ongoing	N/A	
Objective 6.2: Work with Town departments and committees to clarify and execute the enforceable punishments for illegal dumping and polluting.				
Action 6.2.1: Post the fees, fines, and information about illegal dumping in municipal buildings and on the Town's website	OSC, CC, BOH, IS	Short- term	Town capital funds	
Action 6.2.2: Work with the Department of Public Works to create signage and place in frequently polluted areas	OSC, CC, BOH, IS	Short- term	Town capital funds	
Action 6.2.3: Install security cambers at Stocker Playground and other dumping hot spots	OSC, CC, BOH, IS	Mid-term	Town capital funds	
Action 6.2.4: Coordinate with the Massachusetts Environmental Strike Force regarding enforceable punishments	OSC, CC, BOH, IS	Ongoing	N/A	
Action 6.2.5: Install (vehicle) barriers to prevent access for commercial dumping	OSC, CC, BOH, IS	Mid-term	Town capital funds	
Objective 6.3: Promote educational programs regarding the appropriate disposal of hazardous waste materials.				
Action 6.3.1: Work with the Department of Inspectional Services to disseminate flyers on a quarterly basis to all Saugus households that list hazardous materials accepted by the town	IS, SWRD	Ongoing	Town capital funds	
Action 6.3.2: Post a banner on the Town website whenever there is a Hazardous Waste Day	IS, SWRD	Ongoing	N/A	
Action 6.3.3: Consider holding an additional Hazardous Waste Day during the year	IS, SWRD	Ongoing	N/A	
Objective 6.4: Explore opportunities for remediatio	n of polluted sites in	town.		
Action 6.4.1: Identify and target areas where polluted sites may be infiltrating groundwater or causing other negative environmental effects	OSC, CC, DPW	Mid-term	MET	

Action 6.4.2: Seek out technical assistance from the Massachusetts Department of Environmental Protection about the cleanup process, funding, and site-specific information for brownfield remediation	TP, DPW	Short- term	EPA
Action 6.4.3: Work with property owners interested in remediating and redeveloping brownfield sites to assess their eligibility for an EPA Brownfield Grant	ТР	Ongoing	EPA

Section 10: Public Comments

Letters of support for the Saugus Open Space and Recreation Plan from:

Chief Municipal Officer - Town Manager

Saugus Planning Board

Metropolitan Area Planning Council



Town of Saugus

Town Hall 298 Central Street Saugus, Massachusetts 01906

> Telephone: (781) 231-4111 Fax: (781) 231-4068

November 10, 2017

The Town of Saugus' Open Space and Recreational Plan brought together the Open Space Committee for the first time in many years and allowed for community input on a level not seen in the past. The Open Space Committee, with the help of MAPC, worked consistently to narrow down the goals and objectives for improving the community's open space and recreational sites and concisely stated the role each department, committee. Their hard work has provided the Town with an excellent framework to build upon to enhance our community's natural beauty.

The approval of this OSRP, and the grant funding that will be unlocked, is necessary as the community begins to feel pressure for larger development. Long-term protection of land and upgrades to facilities to meet growing demand are top priorities for sustainable management of land in the Town of Saugus, and this plan makes that clear. While the OSPR is a snapshot in time for our community, it will also act as a living document to guide development and planning for the next seven years. The community of Saugus has a great deal of work ahead of itself to improve the over 2,000 acres of open space found throughout town, however, we are up for the task and look forward to receiving approval from the Executive Office of Energy and Environment for our Open Space and Recreation Plan.

Very truly yours,

Scott C. Crabtree, Esq.



Town of Saugus, Massachusetts

PLANNING BOARD

Town Hall*298 Central Street*Saugus, MA 01906* (781) 231-4196*Fax (781) 231-4109 e-mail: nstead@saugus-ma.gov

PETER A. ROSSETTI, JR., Chairman LAWRENCE A. SHAVER, Vice Chairman R. JAMES SOTIROS, P.E., P.L.S. Consulting Engineer Nancy Stead, Clerk DENNIS MOSCHELLA PHILIP A. SILVANI DOROTHY POPPE Joseph Attubato, Associate Member

The Planning Board for the Town of Saugus has reviewed the Open Space and Recreation Plan and supports the goals and objectives stated throughout the Plan.

The Town's parks and natural open spaces are invaluable assets to the community and this plan highlights areas where improvements will greatly enhance the quality of open space. Additionally, the plan provides an excellent categorization of the facilities and fields located in our town. This information is of particular importance, now that Route 1 has been rezoned to allow for housing and mixed use development, as it clearly states what type of facilities the town could benefit from if included in a new development, such a tennis or basketball courts, over other facilities that may be more abundant in town, such as playgrounds (the town recently completed the construction of two state-of-the-art playgrounds).

Additionally, the OSRP provides a historical background of how the Saugus River and marsh lands have played an important role in the lives of Saugonians since the early settlement of the town. The Town of Saugus may only be 11 miles north of Boston but the community greatly values its open space and easy access to nature whether through Breakheart Reservation, the Rumney Marsh Conservation area, or Prankers Pond. The OSRP will be useful during site and plan reviews as a way to demonstrate the importance of these natural areas and the need to limit development to more appropriate areas while also protecting other valuable open spaces.

The Planning Board would like to thank Executive Office of Energy and Environmental Affairs for approving the Town of Saugus' Open Space and Recreation Plan.

Chairman, Peter A. Rossetti, Jr. Vice Chairman, Lawrence A. Shaver Dorothy Poppe Dennis Moschella Philip Silvani

SMART GROWTH AND REGIONAL COLLABORATION

April 5, 2018

Krista Leahy, Town Planner Town Hall 298 Central Street Saugus, MA 01906

Dear Ms. Leahy:

This letter will serve as MAPC's review of the Town of Saugus 2017 Open Space and Recreation Plan. MAPC enjoyed working with the Town of Saugus 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 town 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 Town in its continued efforts to improve open space and recreation opportunities and facilities in Saugus.

MAPC wishes you the best of luck as you move forward with implementation of the plan.

Sincerely,

Mark Racicot

Land Use Division Director

Mach & Cacrob

Section 11: References

All references are listed as footnotes throughout the document.

Section 12: Appendices

Appendix 1: ADA Self-Evaluation and Transition Plan

Appendix 2: Massachusetts Historical Commission Inventory

Appendix 3: Activity and Use Limitation (AUL) Inventory



Saugus ADA Inventory

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

 $\sqrt{\ }$ = facility is present x = facility is absent

Location	Parking	Pathway/ Trail	Toilet Facility	Ramp	Picnic Area	Water Fountain
Anna Parker Playground	✓	✓	✓	х	x	х
Bellevue Street	х	х	х	х	х	х
Boulder Street Area	х	х	х	х	х	х
Bucchiere Park			under con	struction		
Curley Property	х	✓	х	х	х	х
Glen Park Kettlehole	х	х	х	х	х	х
Golden Hills Playground	✓	✓	x	х	✓	✓
Grandview Park	✓	х	x	х	х	х
Off Central Street	х	х	x	х	х	х
Off Ella Street	х	х	х	х	х	х
Pendleton Properties	х	х	х	х	х	х
Prankers Pond	✓	✓	х	х	х	х
Procopio Property/Vinegar Hill	✓	✓	х	х	х	х
Salters Mill	✓	х	х	х	х	х
Stackpole Field	√	√	√	√	х	✓
Stocker Playground	√	√	х	x	х	х
Summit Road	х	х	х	x	х	х
Vitale Park	√	√	х	х	√	x



Saugus ADA Access Self-Evaluation and Transition Plan

Evaluations in this document are for properties owned by the Town of Saugus, managed by the Conservation Commission or the Youth and Recreation Department, and have facilities such parking, a pathway/trail, 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.

Anna Parker Playground

Facility	Evaluation
	While there are three designated accessible parking spots with appropriate signage (meets required number), they are not located close to an accessible entrance and they require going on a grass strip
Parking	There is a drop-off area located closer to the entrance of the field
	 None of the accessible spaces are wide enough for a car (13 feet, with an 8-foot space and 5-foot aisle) or a van
	There are lots of cracks and ponding in the parking area
	 There is no discernible accessible path of travel from the disembarking area; path requires going through parking, over grass, then through a small gate
	Surface is poorly paved with ponding of water
Pathway	 "Path" is not stable, contains gravel which can get muddy, and does not have a continuous common surface (pavement, then grass, then gravel)
	 Entrance in fence leading to fields is not wide enough to accommodate a wheelchair
Toilet Facility	There are two port-a-potties, but neither are accessible nor can accommodate a wheelchair

Recommendations:

Anna Parker Playground is one of the most visited park facilities in Saugus and should be prioritized for accessibility improvements. The Town of Saugus should consider widening the accessible parking spaces to 13 feet wide and paving an accessible path (3 feet wide) from the spaces to the ballfield benches. The opening of the fence should be widened to at least 3 feet. The Town should add at least one bench that meets accessibility standards by having back support and clear ground space. One of the port-a-potties should be replaced with one that is wheelchair accessible.

Bucchiere (Bristow Street) Park

Facility	Evaluation
	 Under construction, at about 90% completion Park and playground area will be fully ADA compliant
Recommendations:	

Curley Property

Facility	Evaluation
Trail	 There are technically trails on this property, but there is no way to recognize them from the road No parking near supposed entrance to trails

Recommendations:

Working with local nonprofit organizations like Saugus Action Volunteers for the Environment, the Town of Saugus should add signage to the trailheads and provide ongoing trail clearing and maintenance. Due to the relatively flat topography of this property, the Town could consider making one of the trails accessible. This trail should be hard-packed with crushed rock or woodchips and be at least 3 feet wide. If an accessible trail is created, the Town should establish marked parking spaces by the trail entrance and one of those spaces should be an accessible space.

Golden Hills Playground

Facility	Evaluation
Parking	 No marked parking spaces, including accessible spaces; only onstreet parking There is a somewhat accessible drop-off area provided within 100 feet of the playground entrance Street where parking is located is poorly paved and hilly
Pathway	 Fence opening is wide enough to accommodate a wheelchair, though it was locked shut on the visit and the only other way to enter was on a path about two feet wide While the fence opening could be an accessible entrance to the playground's small blacktop space, wooden beams surrounding the blacktop make it impossible for a wheelchair to access the playground, basketball court, or picnic area Blacktop area was stable and in good condition

Picnic Area	 There are two picnic tables, but are so low to the ground that they could not accommodate a wheelchair Surface under tables is stable and evenly graded
Water Fountain	Water fountain inaccessible: perched on top of a small staircase

Recommendations:

The fence opening that can accommodate a wheelchair should remain unlocked. The Town of Saugus should consider adding a marked accessible space to the on-street parking area closest to the playground. Either the wooden beams surrounding the blacktop should be removed, or a ramp should be added to provide access to the various areas of the playground. A wheelchair accessible picnic table and water fountain should be added.

Grandview Park

Facility	Evaluation
Parking	 There are unmarked parking spaces; no designated accessible spaces with signs Surface of parking area mostly evenly paved, though there are cracks in some places

Recommendations:

It appears that there are plenty of parking spaces for this site, given how little it is used. If the site ends up becoming more heavily trafficked, the Town of Saugus should designate one of the parking spaces as an accessible space.

Prankers Pond

Facility	Evaluation
Parking	 No marked parking spaces, including accessible spaces The only place to park is along a driveway (of sorts) that is not level or accessible No other accessible disembarking area
Pathway	 No accessible path from disembarking area to the pond: it is roped off, and the only space to enter cannot accommodate a wheelchair The pathway leading to the pond is uneven gravel and lacks a continuous common surface

Recommendations:

The Town of Saugus should create marked parking at this site and should designate one of the parking spaces as an accessible space. An accessible path should be created from the parking area to the benches by the pond that is hard-packed and at least three feet wide.

Procopio Property/Vinegar Hill

Facility	Evaluation
Parking	 There are designated parking spaces but they are not marked and construction vehicles currently park in them No accessible spaces
Trail	 Saugus Action Volunteers for the Environment is working to clear the trails on the summit to Vinegar Hill Steep and rocky terrain

Recommendations:

Due to the steep and rocky terrain of the trails, this is likely not the best site to prioritize for an accessible trail.

Salters Mill

Facility	Evaluation
Parking	 No marked parking spaces, including accessible spaces Unclear if public parking is actually allowed, as there appear to be private uses happening on the site Surface of the parking area is not accessible: very cracked, uneven surface

Recommendations:

The ownership of and uses on this site are unclear. If the Town decides it would like to make this a designated area for passive recreation, then it should repave the parking area and add an accessible parking space. An accessible bench with back support and clear ground space could be added since this property is right along a winding portion of the Saugus River.

Stackpole Field

Facility	Evaluation
	Two accessible spaces (meets required number) close to accessible entrance
	 Spaces have proper signage and are on evenly paved surface with slopes less than 5%
Parking	 However, designated handicap spaces are parallel, on-street spaces with no marked width
	 If parked, exiting on one side would require getting out of the vehicle onto grass on the curb; exiting on the other side would be right into traffic (neither ideal)

Pathway	 Curbcut in front of entrance Primary public entrance is (a tall fence) accessible to a person using a wheelchair, though not signed Though there is space extending 5 feet from the fence door, it is not level Pathway from entrance to fields/seating area is not evenly paved and has ponding (lots of potholes and cracks with grass growing through)
Toilet Facility	 Only the width of the doors and stalls are ADA compliant Sinks, soap dispensers, and paper towel dispensers are not wheelchair accessible In the women's restroom, there is piping under the counter that obstructs wheelchair access to the sink
Ramp	 Two identical ramps, one leading into men's bathroom and one leading to women's bathroom Wooden ramps (non-slip) that are wider than four feet Ramps exceed slope maximum: slope of 10% Handrail only on one side of ramp: one rail at 34" (not one at 19") Handgrip is a wide (greater than two inches), square shape that is not smooth At the top of the ramp, in front of the bathroom door, is a level platform (though there is not a level platform at bottom of ramp)
Water Fountain	Two water fountains that are both inaccessible: require going up stairs to access

Recommendations:

Stackpole Field is another site that should be prioritized for accessibility improvements given its high use. One of the parking spaces in the off-street parking area should be replaced with an accessible space. The Town of Saugus should construct an evenly paved, level pathway from the parking area to both the toilet facility and the bleacher area. A wheelchair accessible bench with back support and clear ground coverage should be added. The Town should make the appropriate improvements to the bathrooms to ensure that they are wheelchair accessible, as well as replacing the ramps with ones that have proper handrails and a lower slope. Alternatively, given the how often this site is utilized, the Town of Saugus should consider constructing a new, accessible toilet facility that is flush with the surrounding pavement. A water fountain that is wheelchair accessible should also be added.

Stocker Playground

Facility	Evaluation
Parking	 No marked parking spaces, including accessible spaces, in lot Parking area very unevenly paved with many cracks and ponding Surface slope less than 5%, but not flat
Pathway	 No accessible path of travel from parking area to fields, courts, or the water While "paths" are wide enough, they are not at all stable (grass/gravel mixture)
	 Stocker Playground is adjacent to Pendleton Properties, there is no separate access to that conservation land No walkway or path leading from the playground/parking area to the conservation land, which is beautiful and abuts the Saugus River Stocker Playground is in such disarray, there is no reason to just make accessibility modifications, the entire facility needs updating to accommodate additional use

Recommendations:

Stocker Playground is in such disarray, there is no reason for the Town of Saugus to just make accessibility modifications, the entire facility needs to be updated to accommodate additional use. Working with residents, Town should undertake a Stocker Playground Master Plan that envisions a future for the site and has ADA-compliant design.

Vitale Park

Facility	Evaluation
Parking	 Accessible parking space with sign located closest to accessible entrance, wide enough to accommodate a car or van with aisle Surface of parking area evenly paved (only a few small cracks) and has a surface slope of less than 5% There is a curbcut to pathway from parking area at accessible space, and the curbcut (painted green) is wider than three feet with sloped sides
Pathway	 Accessible path of travel from passenger disembarking area and parking area: mostly even surface (brick) with no ponding of water Path is stable (though some buckling of brick), over three feet wide, evenly sloped, and a continuous common surface No objects protruding onto pathway Curbcut from pathway to parking area, next to accessible space

There are a few picnic tables but there is no space under tables to accommodate a wheelchair Sides without seating have metal rods preventing clearance for a wheelchair

 Also a slight difference in level to get from pathway to the area under the picnic tables

Recommendations:

The Town of Saugus should add a wheelchair accessible picnic table and ensure that the ground under the table is flush with the pathway.



Town of Saugus

Town Hall 298 Central Street Saugus, Massachusetts 01906

> Telephone: (781) 231-4111 Fax: (781) 231-4068

May 11, 2017

Mr. Fred Varone Building Commissioner Town of Saugus 298 Central Street Saugus, MA 01906

Dear Mr. Varone:

In accordance with the authority vested in me under Chapter 17 of the Acts of 1947 as amended, and the American Disabilities Act (ADA) you are hereby appointed to the position of ADA Officer for the Town of Saugus.

I would like to take this opportunity to wish you every success in your positon as the American Disabilities Act Officer for the Town of Saugus.

Very truly yours,

Scott C Crabtree, Esq.

Town Manager

CC

Human Resource Dept.



TOWN OF SAUGUS

INSPECTIONAL SERVICES DEPARTMENT 298 CENTRAL STREET Suite #6 SAUGUS, MASSACHUSETTS 01906

Fred Varone Building Commissioner/Zoning Officer Telephone Number 781-231-4119 Fax Number 781-231- 4187 E-mail: fvarone@saugus-ma.gov

TO:

Whom It May Concern

FROM:

Fred Varone, Building Commissioner

Lisa Crowley, Human Resource Director

DATE:

May 11, 2017

SUBJECT:

ADA Compliance

This is to confirm that Fred Varone has been appointed as the ADA Compliance Officer for the Town of Saugus. Mr. Varone and Mrs. Crowley confirm that the hiring and employment practices of the Town are in compliance with the ADA laws and regulations.

The Human Resources Department and Inspectional Services Department maintain an upto-date record of ADA regulations and monitors compliance.

AMERICANS WITH DISABILITIES ACT PUBLIC NOTICE

The Town of Saugus does not discriminate on the basis of disability. Program applicants, participants, members of the general public, employees, job applicants, and others are entitled access to all agency programs, activities, and services without regard to disability.

Copies of this notice are available, upon request, in accessible formats (large print, audiotape, Braille, computer disc, etc.) Our grievance procedure, self-evaluation, as well as ADA policies, practices, and procedures, are readily available, upon request. This notice is posted prominently at all our sites, and on all program brochures and manuals.

The Town of Saugus has designated the following person to coordinate its efforts to comply with the ADA. Inquiries, requests, and complaints should be directed to:

Fred Verrone, ADA Coordinator
The Town of Saugus
Town Hall
298 Central Street,
Saugus, MA. 01906
TEL. (781) 231-4115
FAX (781) 231-4109
www.townsaugus.com

1. Town of Saugus ADA Policies, Procedures, and Practices THE TOWN OF SAUGUS ADA GRIEVANCE PROCEDURE:

This Grievance Procedure is established to meet the requirements of the Americans with Disabilities Act (ADA). It may be used by anyone who wishes to file a complaint alleging discrimination on the basis of disability in employment practices and policies or the provision of services, activities, programs, or benefits by THE TOWN.

The complaint should be in writing and contain information about the alleged discrimination such as name, address, phone number of complainant and location, date, and description of the problem. Alternative means of filing complaints, such as personal interviews or a tape recording of the complaint, will be made available for persons with disabilities upon request.

The complaint should be submitted by the aggrieved and/or his/her designee as soon as possible but no later than 60 calendar days after the alleged violation to:

Fred Verrone, ADA Coordinator
The Town of Saugus
Town Hall
298 Central Street,
Saugus, MA. 01906
TEL. (781) 231-4115
FAX (781) 231-4109
www.townsaugus.com

Within 15 calendar days after receipt of the complaint, the ADA Coordinator will meet with the complainant to discuss the complaint and possible resolutions. Within 15 calendar days after the meeting, the ADA Coordinator, will respond in writing, and, when appropriate, in a format accessible to the complainant, such as large print, Braille, or audiotape. The response will explain the position of Town of Saugus-The Town and offer options for substantive resolution of the complaint.

If the response by the ADA Coordinator, does not satisfactorily resolve the issue, the complainant and/or his/her designee may appeal the decision of the ADA Coordinator within 15 calendar days after receipt of the response to the Town Manager or his or her designee will meet with the complainant to discuss the complaint and possible resolutions. Within 15 calendar days after the meeting the Town Manager or his or her designee will respond in writing, and, where appropriate, in a format accessible to the complainant, with a final resolution of the complaint.

Massachusetts Cultural Resource Information System MACRIS

MACRIS Search Results

Search Criteria: Town(s): Saugus; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
SAU.A	Saugus Iron Works National Historic Site		Saugus	
SAU.B	Cliftondale Building Territory		Saugus	
SAU.C	Cliftondale Square		Saugus	
SAU.D	East Saugus		Saugus	
SAU.E	Walnut Streetscape		Saugus	
SAU.F	Main Street Area		Saugus	
SAU.G	Taylor Streetscape		Saugus	
SAU.H	Pearson Streetscape		Saugus	
SAU.I	Columbus Avenue Streetscape		Saugus	
SAU.J	Lincoln Avenue Streetscape		Saugus	
SAU.K	Morton Avenue Streetscape		Saugus	
SAU.L	Ernest Streetscape		Saugus	
SAU.M	Lincoln Court Streetscape		Saugus	
SAU.N	Clifton Streetscape		Saugus	
SAU.O	Denver Streetscape		Saugus	
SAU.P	Stone Streetscape		Saugus	
SAU.Q	Saugus Pine Motor Court		Saugus	
SAU.R	Essex Streetscape		Saugus	
SAU.S	Tuttle Streetscape		Saugus	
SAU.T	Riverside Cemetery		Saugus	
SAU.U	Metropolitan Park System of Greater Boston		Saugus	
SAU.V	Lynn Fells Parkway		Saugus	
SAU.W	Breakheart Reservation Parkways		Saugus	
SAU.X	Breakheart Reservation		Saugus	
SAU.191	Brown, Eliza M. House	1 Adams Ave	Saugus	c 1800
SAU.193		65 Adams Ave	Saugus	r 1890
SAU.922	Appleton's Pulpit	Appleton St	Saugus	c 1687
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Inv. No.	Property Name	Street	Town	Year
SAU.34		46 Appleton St	Saugus	c 1910
SAU.135		9 Atlantic Ave	Saugus	c 1910
SAU.136		23 Atlantic Ave	Saugus	c 1910
SAU.907	Baker Hill Water Tower	Baker Hill	Saugus	1915
SAU.118		Ballard St	Saugus	r 1890
SAU.120		24 Ballard St	Saugus	c 1890
SAU.121		60 Ballard St	Saugus	r 1890
SAU.122		90 Ballard St	Saugus	r 1890
SAU.123		96 Ballard St	Saugus	r 1890
SAU.217		3 Bennett Ave	Saugus	c 1840
SAU.218		16 Bennett Ave	Saugus	c 1930
SAU.910	Hawkes, Adam House Site	Broadway	Saugus	c 1630
SAU.22	Pranker Manufacturing Company	Central St	Saugus	c 1830
SAU.23	Scott, A. A. Mill	Central St	Saugus	1848
SAU.40	Saint John's Episcopal Church	Central St	Saugus	c 1890
SAU.44	Saugus Town Hall	Central St	Saugus	1875
SAU.45	Saugus Public Library	Central St	Saugus	1918
SAU.68	Saugus Center Railroad Station	Central St	Saugus	c 1853
SAU.186	New England Telephone Exchange Building	Central St	Saugus	c 1910
SAU.190	Blessed Sacrament Roman Catholic Church	Central St	Saugus	1909
SAU.209	Felton School	Central St	Saugus	c 1900
SAU.261	Pranker Manufacturing Company	Central St	Saugus	c 1861
SAU.800	Revolutionary War Cemetery	Central St	Saugus	
SAU.902	Saugus Civil War Monument	Central St	Saugus	1875
SAU.15		9 Central St	Saugus	c 1920
SAU.18		35 Central St	Saugus	c 1920
SAU.17		88 Central St	Saugus	c 1910
SAU.19		102 Central St	Saugus	c 1910
SAU.21	Pranker's Manufacturing Company Worker Housing	162-164 Central St	Saugus	c 1850
SAU.24	Iroquois - Scott Mills Worker Housing	202-206 Central St	Saugus	c 1870
SAU.25	Pranker Manufacturing Company Worker Housing	209 Central St	Saugus	c 1820
SAU.26	Emes, Joseph House - Scott Mill Office	228 Central St	Saugus	c 1820
SAU.268	Saugus Iron Works - Tool Shed	230 Central St	Saugus	c 1992
SAU.269	Saugus Iron Works - Quarters	230 Central St	Saugus	c 1945
SAU.270	Saugus Iron Works - Quarters	232 Central St	Saugus	c 1945
SAU.27	Saugus Iron Works - Iron Works House	244 Central St	Saugus	1687

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Inv. No.	Property Name	Street	Town	Year
SAU.28	Saugus Iron Works - Forge	244 Central St	Saugus	1953
SAU.29	Saugus Iron Works - Rolling and Slitting Mill	244 Central St	Saugus	1954
SAU.30	Saugus Iron Works - Iron House - Warehouse	244 Central St	Saugus	1954
SAU.263	Saugus Iron Works - Visitor Contact Station	244 Central St	Saugus	1954
SAU.264	Saugus Iron Works - Museum - Old Blacksmith Shop	244 Central St	Saugus	c 1870
SAU.265	Saugus Iron Works - Museum Annex	244 Central St	Saugus	1955
SAU.266	Saugus Iron Works - Carpenter Shop - Restroom	244 Central St	Saugus	c 1968
SAU.267	Saugus Iron Works - Maintenance Garage - Lunchroom	244 Central St	Saugus	c 1968
SAU.271	Saugus Iron Works - Blacksmith Forge	244 Central St	Saugus	1974
SAU.900	Saugus Iron Works - Iron Blast Furnace	244 Central St	Saugus	1953
SAU.901	Saugus Iron Works - Slag Pile	244 Central St	Saugus	c 1647
SAU.930	Saugus Iron Works - Corduroy Road	244 Central St	Saugus	1953
SAU.931	Saugus Iron Works - Saugus River Stone Bulkheads	244 Central St	Saugus	1953
SAU.932	Saugus Iron Works - Stone Wall at West Bluff	244 Central St	Saugus	1953
SAU.933	Saugus Iron Works - Well - Cistern	244 Central St	Saugus	1953
SAU.934	Saugus Iron Works - Forge Sluiceways	244 Central St	Saugus	1953
SAU.935	Saugus Iron Works - Furnace Sluiceway and Tailrace	244 Central St	Saugus	1953
SAU.936	Saugus Iron Works - Jenks Area Foundations	244 Central St	Saugus	1950
SAU.937	Saugus Iron Works - Retaining Wall	244 Central St	Saugus	c 1953
SAU.938	Saugus Iron Works - Slitting Mill Sluiceway	244 Central St	Saugus	1953
SAU.939	Saugus Iron Works - Small Bridges over Tailraces	244 Central St	Saugus	1953
SAU.940	Saugus Iron Works - Stabilized Foundations	244 Central St	Saugus	1950
SAU.941	Saugus Iron Works - Retaining Wall - Wood Bulkhead	244 Central St	Saugus	1953
SAU.942	Saugus Iron Works - Wharf - Pier and Bulkhead	244 Central St	Saugus	1953
SAU.943	Saugus Iron Works - Bridges over Saugus River	244 Central St	Saugus	1953
SAU.944	Saugus Iron Works - YCC Stone Wall	244 Central St	Saugus	c 1970
SAU.945	Saugus Iron Works - Wood Storage Shed	244 Central St	Saugus	c 1968
SAU.946	Saugus Iron Works - Picnic Shelter	244 Central St	Saugus	c 1968
SAU.41	Cook, S Cheever, F. C. House	275 Central St	Saugus	c 1840
SAU.225		280 Central St	Saugus	c 1800
SAU.963	Saugus Korea and Vietnam Memorial	298 Central St	Saugus	1976
SAU.964	Devine, PFC Richard D. Jr. Memorial	298 Central St	Saugus	c 1980
SAU.965	Saugus Honor Roll	298 Central St	Saugus	1918
SAU.58	United Church of Christ - First Congregationalist	300 Central St	Saugus	c 1852
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nv. No.	Property Name	Street	Town	Year
SAU.60	Blanchard, George B. House	315 Central St	Saugus	c 1895
SAU.63	Newhall, Edward - Wilson, Everett House	316 Central St	Saugus	c 1880
SAU.189	Twiss, William H. House	387 Central St	Saugus	c 1850
SAU.185		479 Central St	Saugus	c 1900
SAU.105	Saugus Masonic Hall	Chestnut St	Saugus	r 1890
SAU.104		31 Chestnut St	Saugus	c 1800
SAU.103		40 Chestnut St	Saugus	c 1835
SAU.102		41 Chestnut St	Saugus	c 1890
SAU.101		42 Chestnut St	Saugus	c 1830
SAU.100	Evans, Evan House	45 Chestnut St	Saugus	c 1835
SAU.99	Hall, Harmon House	46 Chestnut St	Saugus	c 1800
SAU.98	Westerman, B. W. House	47 Chestnut St	Saugus	c 1800
SAU.97	Brackett, H. House	51-53 Chestnut St	Saugus	c 1840
SAU.96	Bove, W. House	57 Chestnut St	Saugus	c 1800
SAU.95	Newhall, H. House	59-61 Chestnut St	Saugus	c 1810
SAU.94	Gorgeant, G. D. House	62 Chestnut St	Saugus	c 1890
SAU.92	Hall, Harmon House	63 Chestnut St	Saugus	c 1880
SAU.93	Hall, Harmon Carriage Barn	63 Chestnut St	Saugus	c 1880
SAU.91	Newhall, D. S. House	65 Chestnut St	Saugus	c 1800
SAU.90		66 Chestnut St	Saugus	c 1880
SAU.89	Foster, D. B. House	68 Chestnut St	Saugus	c 1850
SAU.88	East Saugus United Methodist Church Parsonage	83 Chestnut St	Saugus	1871
SAU.87	East Saugus United Methodist Church	85 Chestnut St	Saugus	1855
SAU.16		37 Cleveland St	Saugus	c 1900
SAU.154		12 Clifton St	Saugus	c 1915
SAU.245		14 Clifton St	Saugus	c 1915
SAU.61		6 Columbus Ave	Saugus	c 1906
SAU.253		8 Columbus Ave	Saugus	c 1906
SAU.254		10 Columbus Ave	Saugus	c 1906
SAU.255		12 Columbus Ave	Saugus	c 1906
SAU.262		14 Columbus Ave	Saugus	c 1906
SAU.70	Cross, N. K. House	11 Denver St	Saugus	c 1840
SAU.192	Johnson, G. H. House	72 Denver St	Saugus	c 1910
SAU.236		74 Denver St	Saugus	c 1910
SAU.71	Saugus High School	East Denver St	Saugus	c 1925
SAU.952	Breakheart Reservation Parkways - Elm Road	Elm Rd	Saugus	c 1938
SAU.923	Pirate's Glen	Elm St	Saugus	

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Inv. No.	Property Name	Street	Town	Year
SAU.947	Elm Street Bridge over Saugus River	Elm St	Saugus	1937
SAU.200		6 Enmore Rd	Saugus	c 1915
SAU.169		10 Ernest St	Saugus	c 1900
SAU.241		12 Ernest St	Saugus	c 1900
SAU.170		21 Ernest St	Saugus	c 1910
SAU.908	Essex Street Overpass	Essex St	Saugus	1937
SAU.165	Cliftondale United Church of Christ	50 Essex St	Saugus	c 1888
SAU.164	Cliftondale School	58 Essex St	Saugus	1894
SAU.163	Cliftondale Church of the Nazarene	60 Essex St	Saugus	1899
SAU.181		117 Essex St	Saugus	c 1835
SAU.182		119-121 Essex St	Saugus	c 1900
SAU.206	Garland House	147 Essex St	Saugus	c 1895
SAU.204	Dearborn, N. D. House	157 Essex St	Saugus	c 1890
SAU.202	Hawkes, A. A. House	174 Essex St	Saugus	r 1890
SAU.201	Balley, J. B. House	184 Essex St	Saugus	r 1890
SAU.196	Armitage School	216 Essex St	Saugus	1922
SAU.195	Cheever, Abijah House	225 Essex St	Saugus	c 1806
SAU.212		311 Essex St	Saugus	r 1920
SAU.232		313 Essex St	Saugus	r 1920
SAU.233		315 Essex St	Saugus	r 1920
SAU.234		317 Essex St	Saugus	r 1920
SAU.161	Cliftondale Railroad Station	Eustis St	Saugus	c 1853
SAU.162		1 Eustis St	Saugus	c 1910
SAU.198		15 Felton St	Saugus	c 1890
SAU.199		16 Felton St	Saugus	c 1900
SAU.950	Breakheart Reservation Parkways - Forest Street	Forest St	Saugus	1937
SAU.954	Breakheart Reservation Parkways - Forest St Median	Forest St	Saugus	1937
SAU.955	Breakheart Reservation Entrance Swinging Bar Gates	Forest St	Saugus	
SAU.956	Breakheart Reservation Entry Gates	Forest St	Saugus	1937
SAU.957	Breakheart Reservation Culvert System	Forest St	Saugus	r 1920
SAU.272	Breakheart Reservation Visitor's Center	201 Forest St	Saugus	c 2004
SAU.273	Breakheart Reservation Maintenance Building	201 Forest St	Saugus	c 2005
SAU.274	Breakheart Reservation - Kasabuski Skating Rink	201 Forest St	Saugus	
SAU.958	Breakheart Reservation Picnic Areas	201 Forest St	Saugus	c 1930
SAU.960	Breakheart Reservation - Practice Ski Slope	201 Forest St	Saugus	c 1930
SAU.961	Breakheart Reservation - Pearce Lake Dam	201 Forest St	Saugus	c 1930
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Inv. No.	Property Name	Street	Town	Year
SAU.962	Breakheart Reservation - Pearce Lake Dam Sluiceway	201 Forest St	Saugus	c 1930
SAU.13	•	70 Great Woods Rd	Saugus	c 1905
SAU.925	Hamilton Street Bridge	Hamilton St	Saugus	
SAU.125	Atherton, H. H. Factory	229 Hamilton St	Saugus	c 1880
SAU.953	Breakheart Reservation Parkways - Hemlock Road	Hemlock Rd	Saugus	c 1938
SAU.213		16 Highland Ave	Saugus	c 1860
SAU.137		14 Hillcrest St	Saugus	c 1910
SAU.205		14 Hood Ave	Saugus	c 1915
SAU.228		Howard St	Saugus	c 1725
SAU.219	Boardman House	7 Howard St	Saugus	c 1687
SAU.220		70 Howard St	Saugus	c 1915
SAU.177	Bond Block	Jackson St	Saugus	c 1900
SAU.180	Raddin House	42 Jackson St	Saugus	r 1890
SAU.179		45 Jackson St	Saugus	c 1840
SAU.178	Raddin, H. A. and Son Store	47-49 Jackson St	Saugus	c 1850
SAU.67		35 Jasper St	Saugus	c 1920
SAU.138	Emerson School	Lincoln Ave	Saugus	1906
SAU.139		Lincoln Ave	Saugus	c 1910
SAU.146	Sweetser School	Lincoln Ave	Saugus	1926
SAU.905	Sweetser Monument	Lincoln Ave	Saugus	1924
SAU.906	World War Memorial Tablet	Lincoln Ave	Saugus	1921
SAU.966	Lincoln Avenue - Boston Street Bridge	Lincoln Ave	Saugus	1927
SAU.106		41 Lincoln Ave	Saugus	c 1830
SAU.107	Johnson, R. A. House	43 Lincoln Ave	Saugus	c 1875
SAU.108	Mansfield, H. W. House	47 Lincoln Ave	Saugus	c 1845
SAU.109		48 Lincoln Ave	Saugus	c 1850
SAU.112	Newhall, W. F. House	55-57 Lincoln Ave	Saugus	c 1840
SAU.113	Lockwood, J. C. House	59 Lincoln Ave	Saugus	c 1800
SAU.114	Oliver, C. B. House	64 Lincoln Ave	Saugus	c 1880
SAU.115	Oliver House	69 Lincoln Ave	Saugus	c 1840
SAU.116	Oliver House	71 Lincoln Ave	Saugus	c 1835
SAU.117	George, E. B. House	79 Lincoln Ave	Saugus	r 1890
SAU.119	Rhodes, B. House	92 Lincoln Ave	Saugus	c 1875
SAU.126		95 Lincoln Ave	Saugus	c 1850
SAU.127	Rhodes, C. B. House	97 Lincoln Ave	Saugus	c 1850
SAU.128	Rhodes, C. B. House	101 Lincoln Ave	Saugus	c 1850

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Inv. No.	Property Name	Street	Town	Year
SAU.129	Rhodes - Worthey House	105-107 Lincoln Ave	Saugus	r 1890
AU.130		135 Lincoln Ave	Saugus	c 1840
AU.132	Stocker, T. House	210 Lincoln Ave	Saugus	c 1840
AU.133		213 Lincoln Ave	Saugus	c 1920
AU.134		255 Lincoln Ave	Saugus	c 1836
AU.140		353 Lincoln Ave	Saugus	c 1900
AU.141		357 Lincoln Ave	Saugus	c 1900
AU.144		363 Lincoln Ave	Saugus	c 1910
AU.246		365 Lincoln Ave	Saugus	c 1910
AU.145		389 Lincoln Ave	Saugus	c 1885
AU.147		406 Lincoln Ave	Saugus	c 1840
AU.172	Saint Margaret's Church	431 Lincoln Ave	Saugus	c 1924
AU.173	U. S. Post Office - Saugus Main Branch	437 Lincoln Ave	Saugus	c 1935
AU.174		459 Lincoln Ave	Saugus	c 1820
AU.168	Odd Fellows Hall	480 Lincoln Ave	Saugus	c 1910
AU.175		481 Lincoln Ave	Saugus	c 1930
AU.167		492 Lincoln Ave	Saugus	c 1910
AU.176	Cliftondale United Methodist Church	493 Lincoln Ave	Saugus	1915
AU.151		562 Lincoln Ave	Saugus	c 1820
AU.166		5 Lincoln Ct	Saugus	r 1912
AU.242		7 Lincoln Ct	Saugus	r 1912
AU.243		9 Lincoln Ct	Saugus	r 1912
AU.244		11 Lincoln Ct	Saugus	r 1912
AU.948	Lynn Fells Parkway	Lynn Fells Pkwy	Saugus	1906
AU.949	Lynn Fells Parkway - Culvert Drainage System	Lynn Fells Pkwy	Saugus	r 1935
AU.47	Roby School	Main St	Saugus	1896
AU.49	First Parish Universalist Unitarian Church	Main St	Saugus	c 1860
AU.53	Saugus Female Seminary	Main St	Saugus	1822
AU.227		Main St	Saugus	c 1840
AU.909	Main Street Overpass	Main St	Saugus	1937
AU.46	Stone Church, Old	15 Main St	Saugus	1836
AU.48	Centre School	25 Main St	Saugus	1821
AU.57		30 Main St	Saugus	c 1850
AU.50	Wilson, E. E. House	35 Main St	Saugus	c 1879
AU.51		39 Main St	Saugus	c 1810
AU.56		40 Main St	Saugus	c 1820
AU.256	Foster, A. A. House	55 Main St	Saugus	c 1840
AU.52		59 Main St	Saugus	c 1895
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Inv. No.	Property Name	Street	Town	Year
SAU.55		74 Main St	Saugus	c 1850
SAU.54		86 Main St	Saugus	c 1850
SAU.215	Saugus Center Methodist Church	105 Main St	Saugus	1877
SAU.216		137 Main St	Saugus	c 1800
SAU.221	Berthold Farm	384 Main St	Saugus	c 1900
SAU.231	Berthold Farm	392 Main St	Saugus	c 1850
SAU.75		19 Marshall Ave	Saugus	c 1920
SAU.142		1 Morton Ave	Saugus	c 1900
SAU.247		3 Morton Ave	Saugus	c 1900
SAU.248		5 Morton Ave	Saugus	c 1900
SAU.249		7 Morton Ave	Saugus	c 1900
SAU.250		9 Morton Ave	Saugus	c 1900
SAU.143		21 Morton Ave	Saugus	c 1900
SAU.158	Lovering, H. House	9 Mount Vernon St	Saugus	r 1890
SAU.157		12 Mount Vernon St	Saugus	c 1910
SAU.156	Allen, A. N. House	24 Mount Vernon St	Saugus	r 1900
SAU.155		35 Mount Vernon St	Saugus	c 1910
SAU.160		5 Myrtle St	Saugus	c 1910
SAU.159		19 Myrtle St	Saugus	c 1910
SAU.74		14 Nowell St	Saugus	c 1910
SAU.171		20 Oakhill Rd	Saugus	c 1900
SAU.152		5 Park St	Saugus	c 1910
SAU.62	McGilray, M. R. House	6 Pearson St	Saugus	c 1900
SAU.64		48 Pearson St	Saugus	r 1910
SAU.252		50 Pearson St	Saugus	r 1910
SAU.65		52 Pearson St	Saugus	c 1915
SAU.951	Breakheart Reservation Parkways - Pine Tops Road	Pine Tops Rd	Saugus	1935
SAU.929	Pines River Railroad Bridge	Pines River	Saugus	1916
SAU.197		23 Pleasant Ave	Saugus	c 1895
SAU.39	Wilson, D. F. House	15 Pleasant St	Saugus	c 1870
SAU.131	Ballard School	Richard St	Saugus	1911
SAU.86		15 Riverside Ct	Saugus	c 1880
SAU.211	Smith's Cabins - Avalon Motel	Route 1	Saugus	c 1940
SAU.223	Saugus Pines Motor Court - Cabin #1	Route 1	Saugus	c 1930
SAU.229	Saugus Pines Motor Court - Cabin #2	Route 1	Saugus	c 1930
SAU.230	Saugus Pines Motor Court - Cabin #3	Route 1	Saugus	c 1930
SAU.911	Hilltop Steak House Sign	Route 1	Saugus	1967

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nv. No.	Property Name	Street	Town	Year
SAU.912	Siesta Motel Sign	Route 1	Saugus	c 1950
SAU.913	Avalon Motel Sign	Route 1	Saugus	c 1950
SAU.914	Route 1 Miniature Golf Sign	Route 1	Saugus	c 1960
SAU.918	Hawkes Pumping Station	Route 1	Saugus	c 1890
SAU.919	Hawkes Pumping Station	Route 1	Saugus	c 1910
SAU.207	Pine - Crest Motel	Route 99	Saugus	c 1935
SAU.915	Pine-Crest Motel Sign	Route 99	Saugus	c 1950
SAU.904	Western Ave - Salem Tpk Bridge over Saugus River	Rt 107	Saugus	1912
SAU.917	Saugus and Pines Rivers - Bear Creek Marsh	Salem Turnpike	Saugus	
SAU.927	Salem Turnpike Bridge	Salem Turnpike	Saugus	1941
SAU.928	Salem Turnpike Bridge	Salem Turnpike	Saugus	1941
SAU.926	Saugus River Railroad Bridge	Saugus River	Saugus	1943
SAU.967	Saugus River Drawbridge	Saugus River	Saugus	1911
SAU.184		70 School St	Saugus	c 1910
SAU.183		10 Staaf Rd	Saugus	c 1890
SAU.78		1 Stanton St	Saugus	c 1935
AU.251		3 Stanton St	Saugus	c 1935
SAU.81	Stocker, Frederick Brickyard Workers Housing	6-8 Stocker St	Saugus	r 1850
SAU.82	Stocker, Frederick Brickyard Workers Housing	7 Stocker St	Saugus	c 1890
SAU.83		14-16 Stocker St	Saugus	c 1880
AU.84	Stocker, Frederick Brickyard Worker Housing	21 Stocker St	Saugus	c 1850
AU.85	Stocker, Frederick Brickyard Warehouse	22 Stocker St	Saugus	c 1890
SAU.187		6 Stone St	Saugus	r 1900
AU.188		21 Stone St	Saugus	c 1900
SAU.237		23 Stone St	Saugus	c 1900
SAU.238		25 Stone St	Saugus	c 1900
SAU.239		27 Stone St	Saugus	c 1900
AU.240		29 Stone St	Saugus	c 1900
SAU.37	Hughes House	26 Summer St	Saugus	c 1860
SAU.38	Hodge, H. E. House	27 Summer St	Saugus	c 1895
SAU.36	Armitage Estate, The	32 Summer St	Saugus	c 1865
SAU.35	Armitage Estate Outbuilding	34 Summer St	Saugus	c 1890
SAU.43	Saugus Old Town Hall	Taylor St	Saugus	1838
AU.59	Saugus Fire Station - Police Station	6 Taylor St	Saugus	1935
AU.226		28 Taylor St	Saugus	r 1900
SAU.42		31 Taylor St	Saugus	r 1880
SAU.259		33 Taylor St	Saugus	r 1880

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Inv. No.	Property Name	Street	Town	Year
SAU.260		35 Taylor St	Saugus	r 1880
SAU.203		6 Tuttle St	Saugus	c 1900
SAU.235		8 Tuttle St	Saugus	c 1900
SAU.77		11 Victoria St	Saugus	c 1920
SAU.110	Mansfield, H. W. House	31 Vincent St	Saugus	c 1840
SAU.111	Mansfield, H. W. House	33 Vincent St	Saugus	c 1860
SAU.916	Sim, William Greenhouse	Vine St	Saugus	c 1935
SAU.214		14 Vine St	Saugus	c 1910
SAU.12		53 Walden Pond Ave	Saugus	c 1830
SAU.924	Birch Pond Pumping Station	Walnut St	Saugus	c 1910
SAU.5	Hawkes - Raddin House	61 Walnut St	Saugus	c 1800
SAU.6		62 Walnut St	Saugus	c 1870
SAU.7		111 Walnut St	Saugus	c 1820
SAU.8		116 Walnut St	Saugus	c 1900
SAU.9	North Saugus Union Church	122 Walnut St	Saugus	1911
SAU.275	Camp Nihan - Ranger Cabin	131 Walnut St	Saugus	
SAU.276	Camp Nihan - Clarke Cabin	131 Walnut St	Saugus	
SAU.277	Camp Nihan - Caretaker's House	131 Walnut St	Saugus	
SAU.278	Camp Nihan - Peckham Cabin	131 Walnut St	Saugus	
SAU.279	Camp Nihan - Lynnfield Cabin	131 Walnut St	Saugus	
SAU.280	Camp Nihan - Sprague Lodge	131 Walnut St	Saugus	
SAU.959	Camp Nihan - Campsites	131 Walnut St	Saugus	
SAU.11		132 Walnut St	Saugus	c 1900
SAU.10		136 Walnut St	Saugus	c 1890
SAU.257		138 Walnut St	Saugus	c 1890
SAU.258		142 Walnut St	Saugus	c 1890
SAU.4		59 Water St	Saugus	c 1820
SAU.3		109 Water St	Saugus	c 1820
SAU.150		36 Western Ave	Saugus	r 1890
SAU.149		58 Western Ave	Saugus	c 1920
SAU.148		66 Western Ave	Saugus	r 1890
SAU.69	Saugus Center Garage	Winter St	Saugus	1925
SAU.801	Riverside Cemetery	Winter St	Saugus	c 1844
SAU.903	World War II Memorial	Winter St	Saugus	1946
SAU.920	Receiving Tomb - Riverside Cemetery	Winter St	Saugus	1914
SAU.921	Middleton Tomb - Riverside Cemetery	Winter St	Saugus	c 1925
SAU.80	•	29-31 Winter St	Saugus	c 1910
SAU.79		69 Winter St	Saugus	c 1900
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Inv. No.	Property Name	Street	Town	Year
SAU.76		115 Winter St	Saugus	c 1900

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Appendix 3: Activity and Use Limitation (AUL) Inventory

Release Address RTN 222 CENTRAL ST 3-0003	Site Name/ Location Aid 3949 HENKEL CORPORATION FACILITY AUL amended on 12/31/2002 AUL received on 10/18/1999 Legal notice posted on 01/23/2003	Book O	Page Registry Web Link 0 Essex South	Compliance Status RAO	Date Phase 10/18/1999 PHASE III	RAO Clas	ss Files Y
595 BROADWAY 3-0004	A725 COMMERCIAL PROPERTY AUL amended on 01/07/2002 AUL amended on 06/06/2002 AUL received on 07/10/1998	14927	377 Essex South	RAO	7/10/1998	A3	Y
1325 BROADWAY 3-0010	O245 SEARS STORE #1053 AUL amended on 03/17/2006 AUL received on 08/04/1997 Legal notice posted on 03/18/2006	14235	160 Essex South	RAO	8/4/1997 PHASE II	A3	Y
66 BROADWAY 3-0010	O309 NO LOCATION AID AUL received on 10/24/2011	0	0 Essex South	STMRET	6/15/2009 PHASE III		Υ
244 CENTRAL ST 3-0012	2551 SAUGUS IRON WORKS AUL confirmed on 09/25/2006 AUL received on 09/23/1998	0	0 Essex South	RAO	9/23/1998 PHASE II	B2	Y
1325 BROADWAY 3-0013	3205 SEARS AUTOMOTIVE CTR #1053/SQUARE 1 MALL AUL amended on 03/17/2006 AUL received on 08/04/1997 Legal notice posted on 03/18/2006	0	O Essex South	RAO	8/4/1997 PHASE II		Υ
244 CENTRAL ST 3-0013	3248 NO LOCATION AID AUL confirmed on 09/25/2006 AUL received on 09/23/1998	0	0 Essex South	RAO	9/23/1998		Y
1481 BROADWAY 3-0017	7561 YORK FORD AUL received on 03/22/1999	15540	183 Essex South	RAO	3/22/1999	A3	Υ
244 CENTRAL ST 3-0017	7734 SAUGUS IRON WORKS AUL confirmed on 09/25/2006	0	0 Essex South	DPS	12/15/1998		Υ
9 MAIN ST 3-0017	7822 MONUMENT SQUARE SERVICE CENTER AUL received on 01/13/2004	0	0 Essex South	RAO	1/12/2004 PHASE II	А3	Υ
1481 BROADWAY 3-0020	D113 RTE 1 AUL received on 01/26/2004	0	0 Essex South	RAO	1/26/2004 PHASE II	А3	Υ
130 BALLARD ST 3-0024	4149 NO LOCATION AID AUL received on 02/02/2009 Legal notice posted on 01/22/2009	0	0 Essex South	RAO	2/2/2009 PHASE III	A3	Y

306-308 CENTRAL ST 3-0024468	3 308 CENTRAL PLAZA AUL received on 12/13/2005 Legal notice posted on 12/03/2005	0	0 Essex South	RAO	10/27/2010 PHASE II	B2	Υ
HOWARD ST 3-0024786	GOLDEN HILLS SUBSTATION TRANS NO 1 AUL received on 04/18/2008 Legal notice posted on 05/06/2008	0	0 Essex South	RAO	4/18/2008 PHASE II	А3	Y
1831 BROADWAY 3-0026578	NO LOCATION AID AUL received on 02/11/2008 Legal notice posted on 03/06/2008	0	0 Essex South	RAO	2/11/2008	А3	Υ
109 BALLARD ST 3-0027778	REAR OF 109 BALLARD ST AUL received on 05/17/2010	0	O Essex South	RAO	9/2/2008	B2	Y
83 HOWARD ST 3-0028298	TRANSFMR NO 2 GOLDEN HILLS NO 90 SUBSTA AUL received on 01/29/2013 Legal notice posted on 02/12/2013	0	O Essex South	RAO	1/29/2013 PHASE IV	А3	Y
100 SALEM TPKE 3-0028899	WHEELABRATOR SAUGUS AUL received on 11/12/2010 Legal notice posted on 12/13/2010	0	0 Essex South	RAO	11/15/2010	А3	Υ
100 SALEM TPKE 3-0029500	WHEELABRATOR SAUGUS INC GRASS SWALE AUL received on 11/12/2010 Legal notice posted on 12/13/2010	0	O Essex South	RAO	11/15/2010		Υ