

## TOWN OF HOLDEN OPEN SPACE AND RECREATION PLAN, 2021

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**PLAN SUMMARY** 

1

This Open Space and Recreation Plan (OSRP) is designed to provide direction to and reflect the commitment of the Town of Holden in protecting its open spaces, recreational, and historical resources. The Town recognizes the importance of protecting existing open spaces to provide recreational opportunities, scenic views, agricultural, water supply, and habitat protection, and to mitigate the effects of climate change.

This 2021 OSRP serves as an update to Holden's prior OSRP, which was completed in 2012, and maintains the Town of Holden's eligibility for grant programs administered by the Division of Conservation Services (DCS) of the Massachusetts Executive Office of Energy and Environmental Affairs (EEA). A group of Town staff and volunteers utilized the 2012 Plan as a starting point for this update. Changes in the community, environmental challenges, and other key factors were examined and evaluated during this update. This 2021 Plan builds on the vision established in the 2012 Plan.

The Town of Holden has engaged in a variety of other prior planning efforts to help expand, improve, and enhance the Town. Some of those major planning efforts that the Town has initiated or participated in include: Holden Master Plan (2019), Holden Capital Plan (2019), Holden FY 2022 Budget, Fiscal Impact Assessment and Growth Management Plan (2018), Long Range Transportation Plan (2019), Holden Hazard Mitigation Plan (2017), and the Holden Municipal Vulnerability Preparedness Summary of Findings Plan (2018).

Utilizing a public outreach process, previous planning efforts, and input from Town stakeholders, the Open Space Committee was able to put together a Seven-Year Action Plan to advance open space and recreation opportunities in Town. The Seven-Year Action Plan hopes to promote the following goals:

- Preserve Open Space and Natural Areas in Holden, Including Water, Agricultural, Wildlife, Wetlands, Scenic Vistas, Unique Natural Areas, Historical Sites, and Cultural Resources;
- II. Provide Active Recreation Resources and Facilities in Holden;
- III. Promote Passive Recreation and Open Space Resources; and
- IV. Develop and Implement Funding Sources and Partnerships

These goals will be further discussed in Sections 6 through 9 of this plan.



INTRODUCTION

## A. STATEMENT OF PURPOSE

The Town of Holden can be characterized as a nice place to live with extensive woodlands, a network of streams and wetlands, pastoral scenery, and quiet neighborhoods. Though principally suburban in character, Holden is also a growing Town. Holden residents and Town officials recognize that retaining the New England small town flavor they so enjoy requires systematic planning to offset a threat posed by current levels of residential growth and continuing development pressures. The Town developed this plan to coordinate efforts between Town departments, residents, and other stakeholders to maintain and enhance the character of the Town.

This 2021 OSRP represents a comprehensive effort on the part of the Town of Holden to revise and update the 2012 Holden OSRP. The 2012 OSRP was revised from the 1999 Plan, which superseded the original 1994 Plan. Data analysis and recommendations contained in this Plan have been developed by the Open Space Committee to guide Town government, boards and committees, and others interested in meeting Holden's open space and recreation needs over the next seven-year period, 2021 through 2028.

## **B. PLANNING PROCESS AND PUBLIC PARTICIPATION**

## **Open Space Committee**

The Open Space Committee was formed in 2020 to guide this process of updating the existing OSRP. In November 2020, the Town of Holden engaged in a contract with the Central Massachusetts Regional Planning Commission (CMRPC) for assistance in updating this OSRP. On January 5, 2021, the Open Space Committee kicked off the OSRP planning process. This Committee met virtually approximately once per month in compliance with Open Meeting Law, to plan for public engagement efforts and discuss elements of the OSRP. All meetings were summarized in writing by Glenda Williamson, Holden's Conservation Agent, and meeting minutes were posted on the Town website. The Committee met nine (10) times between January 2021 and October 2021.

## **Community Survey**

During the first few months of this planning process, the Open Space Committee developed a community input survey to gather feedback from the public regarding the strengths and

weaknesses of the Town's open space and recreation opportunities. The survey included 20 questions and took approximately 12 minutes for participants to complete. The survey was available online via Survey Monkey, and hard copies were available for pick-up and drop-off at the Town Hall. The survey was launched on January 29, 2021, and ran until March 31, 2021. The Committee promoted the survey using the Town of Holden's website and social media pages, the CMRPC Facebook page, email listservs, promotional flyers posted around Town, and by word of mouth. In total, there were 495 responses to the survey. The findings of the survey will be discussed later in this Plan, and the full results are included in the Appendix.

## Walkshop

The entire planning process for the update of this Open Space and Recreation Plan took place during the COVID-19 pandemic. During much of this time, social distancing protocols were in place which prevented in-person meetings. Thankfully, in Spring 2021, some of these restrictions were lifted which allowed for more public engagement opportunities. Still mindful of the concerns of the COVID-19 pandemic, the Committee decided to host an outdoor "Walkshop" in lieu of a standard public forum. This Walkshop was held on Saturday, June 12, 2021 from 9:00 - 11:00 am at Trout Brook in Holden. During this time, residents and other stakeholders were welcome to stop in at the Walkshop, learn more about the planning process, and leave their ideas for potential open space and recreation improvements. Large maps and posterboards were dispersed at Trout Brook, allowing residents to view and mark up their favorite open space and recreation areas in Town, as well as list their own goals and action suggestions. Coffee and donuts were provided to those who attended, and calendars were raffled off to encourage participation. To advertise the event, a flyer was created and distributed on the Town's website and social media pages, the CMRPC Facebook page, email listerys, and was posted around Town. In addition, the Committee ran a message on the Town's electric sign board highlighting the event details. In total, there were thirty-two (32) residents, Town staff, Town board and committee members, and other stakeholders who attended the event.

A draft of the plan was made available on the Town of Holden's website for viewing and public comment. A link to the draft plan was also distributed to those who submitted their email addresses when responding to the community survey or attending the Walkshop event.



## **COMMUNITY SETTING**

## A. REGIONAL CONTEXT

The Town of Holden is a rural community located in central Massachusetts. Holden is bordered by Princeton to the Northwest, Sterling to the Northeast, West Boylston to the East, Worcester to the Southeast, Paxton to the Southwest, and Rutland to the West. Holden is approximately 55 miles West of Boston, and 190 miles from New York City. A map showing Holden's Regional Context is provided on the following page. According to the United States Census Bureau, the Town has a total area of 36.2 square miles, of which 35 square miles of it is land and 1.2 square miles of it is water. Holden is located in Worcester County. Principal highways include:

- State Route 68;
- US Interstate 190, which links to the Fitchburg-Leominster area and Worcester;
- US Interstate 290, which connects to Interstate 495;
- State Route 31; and
- State Route 122A

The region is well connected by highway to the ports, airports, and intermodal facilities of Boston and Providence. Holden is a member of the Worcester Regional Transit Authority (WRTA) but does not receive fixed route services. Commuters can board the Massachusetts Bay Transit Authority (MBTA) trains in either Grafton, Westborough, Fitchburg, or Westminster. Amtrack trains on the Lakeshore Route connecting Boston to New York and Chicago board at the Framingham and Worcester Stations. Though most air travelers utilize Boston's Logan Airport, TF Green Airport in Providence, and Manchester-Boston Regional Airport, New Hampshire's Airport, some use the Worcester Municipal Airport, directly South of Holden on Route 122. Several smaller airfields are also located within a 20-mile radius.

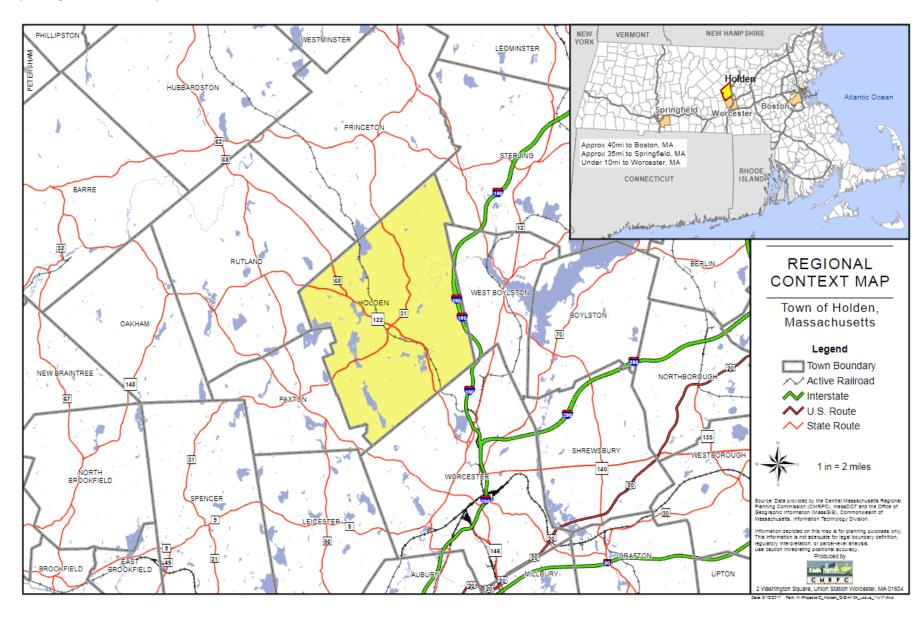
Several of Holden's open spaces cross the Town border into adjacent towns. There are wide spans of open space that cross over into Worcester, Sterling, Princeton, Rutland, and Paxton. These areas of open space create the potential for linkages of protected lands that be used for both recreation and wildlife habitat protections depending on their ownership and permitted uses.

Approximately 82% of Holden is located within the Nashua River Watershed; the remaining southern area of Town is located within the Blackstone Watershed. The Quinapoxet River, which runs through Holden, is a major tributary to the Wachusett Reservoir, located in the neighboring West Boylston. The Wachusett Reservoir serves as a major water resource for the City of Boston. Protection of this water resource is regulated by the Department of Conservation and Recreation (DCR), which has greatly increased its land acquisition for the purpose of water quality protections in recent decades. These open space acquisitions have provided great

aesthetic and passive recreational resources for the Town of Holden. There are five water supply reservoirs located in Holden and owned by the City of Worcester. These reservoirs are the Quinapoxet, Pine Hill, Kendall, Holden Reservoir #1, and Holden Reservoir #2. The City of Worcester has increased their efforts to permanently preserve land surrounding these reservoirs. Unfortunately, the City does not allow access to these reservoir protection land holdings. Many of the towns surrounding Worcester, including Holden, rely on the City's water system and Holden is very cognizant of its need to protect its own water resources and those of its neighboring towns.

Holden has carefully scaled its industrial and business development to be compatible with its desired small, New England character. The Town serves as a residential resource community for Worcester, a business and industrial center. Most of Holden's more residential areas are located along major routes that provide easy access to Worcester and other large employment areas in the region.

Map 1. Regional Context Map



### B. HISTORY OF THE COMMUNITY

The tribes of the Nipmuc Indians were the original inhabitants of Holden and the surrounding region between present-day Boston and Springfield. In 1674, a negotiation took place between Daniel Gookin, representing the General Court, and members of the Pakachoge and Tatessit tribes to purchase the land that would one day become Holden.

The first permanent colonial settlers came to the eight square mile area known as "North Worcester" in the 1720s. Marlborough's Jonas Rice discovered limestone, near what today would-be Shrewsbury Street in the Eastern part of Holden, in 1723 and established a number of kilns in the area. Soon afterward, land surveys were made of the area, the lands were divided into lots, and four roads were built to connect the area to surrounding settlements. The lots were owned by proprietors and allowed settlers to develop them. In 1737, early settlers built a meetinghouse near the corner of Main and Highland Street. The Town of Holden was incorporated on January 9, 1741, named after the Honorable Samuel Holden, a London merchant and benefactor of the New England colonies.

The soil quality of Holden varied heavily along its many hills and valleys. The growing City of Worcester's demand for quality timber drove the market, resulting in many farmers to neglect cultivation of their farms and, instead, opting chop down their tress and sell their wood. While the immediately payoff was high, the result came with diminished productivity of soil. Holden's Colonial period continued to center around subsistence farming and expanded into saw and grist milling to meet the growing need for timber and livestock feed in surrounding towns. Wool and linen became staples of the economy, their production serving as an early means of making a living. By 1750, 55 families lived in Holden.

The completion of the Erie Canal in 1825 marked a shift away farming in Holden, though agriculture was still active in some regard. Its economy, as did many towns', shifted to the production of textiles. By the early 1800s, textile mills - cotton and woolen - began to emerge along Holden's many rivers. The Town's first mill was established in 1809 on the Quinapoxet River, near the junction of Wachusett and Bullard Streets. Owned by Eleazer Rider & Sons, the cotton mill was likely one of the first in Worcester County to manufacture cotton yarn. Along with the mill, the Riders built several tenement houses and established Holden's first mill village - Unionville. A second mill was built in 1817 in the southern part of Town. Built by Royal Chaffin, it specialized in dyeing wool and coloring yarn. In the years immediately following, other mills developed in additional mill villages: Lovellville (1820), Eagleville (1826), Quinapoxet (1831), Dawsonville (1862) and other locations along Holden's waterways. The construction of mill complexes accompanied the increasing number of mills in Holden, leading to an influx of housing and other amenities.

Mill activity dominated the Holden economy through much of the 19th century. In 1871, the railroad came to Holden, eventually offering stops at Chaffins, Dawson, and North Woods, as

well as at the Center, Jefferson, and Quinapoxet. The immigrant population, largely Irish, Canadian, and Swedish, grew to make up a significant portion of the manufacturing labor force. In 1885, 40% of the workforce was foreign-born. In the late 1800s, Holden's location near an urban area on a railroad line began to attract well-to-do families from Boston and New York looking to escape the city and enjoy Holden as a rural retreat. Several summer hotels operated in Town at the end of the 19th and beginning of the 20th centuries.

Beginning in the 1890s, the Metropolitan District Commission, now referred to as the Department of Conservation and Recreation (DCR), was charged with providing water to 41 Boston communities and began acquiring lands in Holden to protect the Wachusett Reservoir. Several of Holden's mills stood on these lands. The mill buildings and summer hotels were gradually demolished, and the lands were preserved as open space.

As the 20th century progressed, agricultural activity in Holden declined along with the mill industry, and the Town evolved slowly into a commuter town and bedroom community for Worcester and Boston. The construction of Interstate 190, to the east of Holden, contributed to its this trend. Until the 1950s, residential properties accounted for most of Holden's land use. In the late 1950s, 1960s, and 1970s, Holden became a suburb, and as a result, many residential properties along Route 122A were demolished to make way for newer, commercial structures. The Town of Holden has continued this trend of suburbanization to the present day, yet it has managed to maintain much of its rural, colonial character.

## C. POPULATION CHARACTERISTICS

## **Total Population**

The Town of Holden has expressed steady population growth since 1930. In the mid-1900s, the Town saw its highest percentage growth, topping out between 1950 and 1960 at 69.3%, an increase of 4,142 people. Since then, population growth hovered between 6.1% and 11.0% between 1980 and 2019. In 2020, the US Census reported Holden's population as 19,905 people, up 2,559 from 2010, and marks a historical high for the Town.

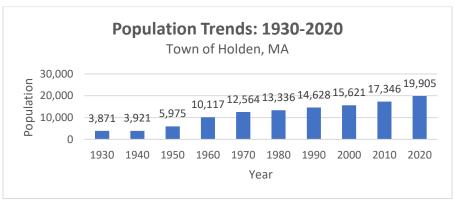


Figure 1. Holden, MA Population Trends 1930 through 2020

## Age

Data from the 2019 ACS 5-Year Estimate illustrates the age composition of the Town of Holden. The trends show that Holden has steadily shifted older over the past decade, which aligns with the general trends seen throughout the region. In 2019, 17.4% of Holden residents were over the age of 65, up from 15.5% in 2010. The median age in Town has also increased, being 41.6 years old in 2010 and 43.3 in 2019. While the overall population age has increased, trends also indicate that the youth population has also increased. In 2010, residents under the age of 18 comprised 15.2% of the population. In 2019, this number increased to 23.5%.

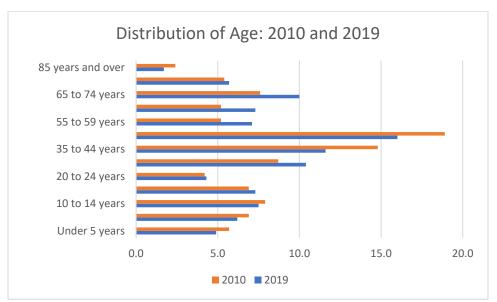


Figure 2. Comparison of age distributions in Holden, MA between 2010 and 2019.

By 2050, the global population of people aged 60 or older is projected to nearly double to 2.1 billion. By 2050, 1 in 5 Americans will be older than 60 years old. By 2060, 25% of the entire U.S. population will be age 60 or older. The age of Holden residents is vital when assessing current open space and recreation facilities as well as planning for future improvements. Designing new, or adapting old, spaces and facilities to be inclusive to aging populations will be a strong trend in the coming decades.

As of note, adults represent an increasingly large share of the U.S. population, but their use of parks is observed as disproportionately low. A 2014 study of 174 neighborhood parks in 25 major U.S. cities found that children - representing 20% of the total U.S. population - made up 38% of park users. Although adults age 60 and older accounted for 20% of the general population, they represented only 4% of total park users (Cohen, 2016). Moving forward, it will be vital that Holden consider the growing senior cohort when planning open space and recreation in Town.

## **Population Density**

The Town of Holden is 36.2 square miles. Given Holden's steady increase in population over the past few decades, it's grown considerably denser. With a population of 12,564 people in 1970, the density in Town was 347.1 persons per square mile. By 2000, the Town's population had grown to 15,621 people, increasing the town-wide density to 431.5 persons per square mile, or over 24% over thirty years. From 2000 to 2019, the Town-wide density increased by a similar rate of 22% to 526.3 persons per square miles. Population density differs in various parts of Holden, with more dense areas being near the center of town (Reservoir-Main Street intersection) and the eastern portion of Town. This should be considered when preserving open spaces in the future as well as what kind of recreational spaces will best serve the population given its density.

## **Special Groups**

#### **Race**

A significant majority, 95%, of Holden's population identifies as White. This White majority has slightly decreased over the past 10 years, as the 2010 Census has 95.6% of Holden residents identifying as White. Given this, the Town has become slightly more diverse over the last 10 years. While some racial groups have increased in percentage makeup, such as those who identify as Black or African American up 0.3%, others have decreased, such as those who identify as Asian dropping 0.7%. The greatest change was seen in those who identify as either Hispanic or Latino, which increased from 1.5% in 2010 to 4.3% in 2019. While these percentages are low, consideration of the non-white population should be made in the planning process as some identity groups may have different recreation needs and use spaces differently.

Table 1. Race and Ethnicity in Holden, MA.

Race and Ethnicity	2019	2010	Change
White	95.0%	95.6%	-0.6%
Black or African American	0.9%	0.6%	0.3%
American Indian and Alaska			
Native	0.1%	0.1%	0.0%
Asian	2.0%	2.7%	-0.7%
Native Hawaiian and Other			
Pacific Islander	0.0%	0.1%	-0.1%
Some other race	0.3%	0.1%	0.2%
Two or more races	1.7%	0.7%	1.0%
Hispanic	4.3%	1.5%	2.8%

#### Language

English is by far the most common language spoken in Holden, being the primary language spoken in Holden homes at 91%, just slightly up from 90.6% in 2010. However, 9% of Holden homes speak a language other than English. Other languages include: Spanish (2.5%), other Indo-European languages (4.9%), Asian or Pacific Islander languages (1.3%) and other languages (.3%). While the 2019 ACS 5-Year Estimate notes that an overwhelming majority of these households speak English "very well", it is still important to consider these non-English speaking populations when performing public engagement, particularly those involving open and recreational spaces.

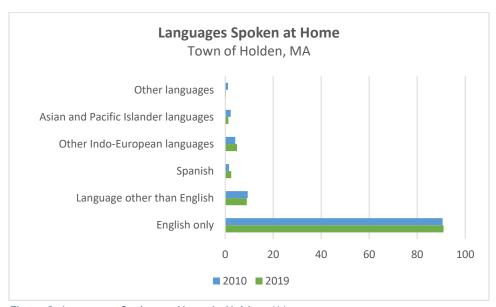


Figure 3. Languages Spoken at Home in Holden, MA.

#### **Environmental Justice Populations**

According to the MassGIS Environmental Justice Population Map of the Central Region, there are no Environmental Justice populations located within Holden. Environmental Justice populations in Massachusetts are determined by the following criteria:

- Households that earn 65% or less of the statewide household median income;
- 25% or more of the residents are minority;
- 25% or more of the residents are foreign-born;
- 25% or more of the residents are lacking English proficiency

Map 2. Environmental Justice Map **ENVIRONMENTAL JUSTICE MAP** OPEN SPACE AND RECREATION PLAN Minority Major Road

Town of Holden, Massachusetts

#### Persons with Disabilities

Persons with disabilities must also be considered in the acquisition, development, and improvement of open space and recreational areas. In recent years, recreational spaces such as playscapes and exercise areas have evolved to meet the needs of disabled residents. In 2019, 8.6% of Holden residents were categorized as disabled. Figure 3.X breaks down Holden's population by disability type, the two must common being a cognitive difficulty (3.7%) and an independent living difficulty. The likelihood of a person living with a disability increases quite drastically with age. Holden residents over the age of 65 are three times as likely to have a disability then the Town average of 24%. Inclusive open and recreational spaces are vital to address the needs of these residents.

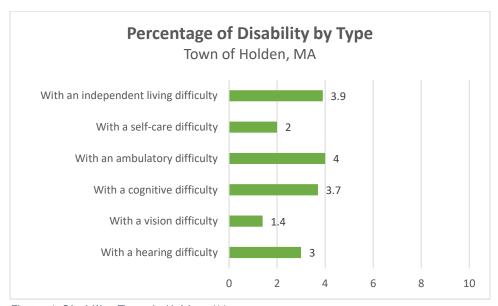


Figure 4. Disability Types in Holden, MA.

## **Accessibility Programs**

The mission of Holden Youth Soccer is to promote the game of soccer as a means of improving the physical, psychological, and social well-being of children while allowing every player an opportunity to play at a level that considers their ability. In support of this, Holden Youth Soccer offers 2 programs to help provide access to recreational activities for people with disabilities in the community.

#### **HYS Unified Team**

The HYS Unified team facilitates meaningful social inclusion for all players by composing teams of players with and without intellectual disabilities. As with all Unified sports, they strive for everyone playing an equal role, despite having different abilities, to foster meaningful involvement for all players. HYS is pioneering a unique operating model by introducing the Unified sports model into town youth sports. Practices and scrimmages are held every week to develop peer-to-peer friendships through soccer. In the fall, our Unified players compete in the Special Olympics State Cup tournament, held at Governor's Academy in Newbury. This event includes a team bus ride, opening ceremonies, multiple games and an awards ceremony. The fun and friendship shared by the players (and coaches) creates a bond that extends beyond the soccer field.

Team members also participate in the Special Olympics Unified Fitness Challenge. Partners train together on fitness goals and compete in United Through Sports World Virtual Youth Festival.

In 2021, they added a league team that competes against other Massachusetts Unified teams. The league offers an additional commitment and challenge for interested players. The HYS Unified Team is inspired by the courage, hard work and love the game demonstrated by all of our Unified players.

#### **TOPSoccer**

The Holden Youth Soccer TOPSoccer Program is a program for children with special needs. Children who live in the Central Massachusetts area, and are between the ages of 5 and 14, are eligible to become TOPSoccer athletes.

TOPSoccer is a volunteer-driven, community-based program that brings the game of soccer into the lives of these wonderful children who might not otherwise have an opportunity to play. TOPSoccer athletes are given the opportunity to experience, enjoy, and play the game of soccer in a modified version that is specifically designed to help build a feeling of individual confidence and success.

The program sessions are held for one hour per week. Volunteer groups of trained coaches (Ages 15 & older) serve as one-on-one facilitators to each TOPSoccer athlete. Athletes participate in soccer-specific activities that help them to experience a sense of personal achievement.

## Income and Employment

The 2019 ACS 5-Year Estimate states that the median household income in Holden was \$108,964. This is an increase of 23.3% since 2010, when Holden's median household income was \$88,405. Household income increased at a faster rate than Worcester County, which grew 16.4% to \$74,679, and a similar rate as the Commonwealth of Massachusetts, which grew 25.9% to \$81,215. In 2019, Holden had an unemployment rate of 4.2%, which was less than both the rest Worcester County (10.1%) and the Commonwealth (10.3%).

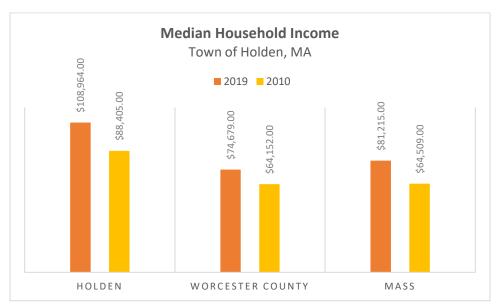


Figure 5. Comparisons of Median Household Income of Holden, Worcester County, and Massachusetts in 2010 and 2019.

As of the 2019 ACS 5-Year Estimate, 10,768 Holden residents are currently in the labor force of which 10,296 are currently employed. Table 3.X breaks down employed-Holden by occupation, which 56.8% of the those employed have an occupation dealing in management, business, science or the arts. Table 3.X further explores the employment of Holden residents by industry and compares industry employment numbers from 2010. The greatest growth was seen in the transportation, warehousing and utilities industry, which more than doubled in size between 2010 and 2019. The biggest reductions were in the public administration (-32.8%) and wholesale trade industries (-27.9%). In 2019, only 11 Holden residents, 0.1% of the labor force, were employed in the "agriculture, forestry, fishing and hunting, and mining" industry. While an insignificant portion overall, this industry did not employ any Holden residents in 2010 and could have a disproportionate effect on the open and recreation spaces of the Town. It is vital to continue to monitor such an industry within Town and possible utilize these Holden resident's expertise in future community engagement.

The following Holden companies employ more than 100 persons:

- Advanced Business Concepts (100-240);
- Big Y (100-249);
- Clariant Corp (100-249);
- Ohc Residences Inc (100-249);
- Oriol Health Care (100-249); and
- Wachusett Regional High School (100-249).

https://lmi.dua.eol.mass.gov/lmi/LargestEmployersArea/LEAResult?A=05&GA=000507

The average commute times for Holden workers was 28.3 minutes, up slightly from 2010 when Holden workers spent 27.1 minutes commuting to work. It appears that most Holden residents work outside of Town, at regional employment hubs such as those in Worcester and those along the Massachusetts Turnpike, as well as the I-290 and I-190 corridors. Holden's most popular method of commuting remains driving alone, which 87.6% of commuters do. However, this has slightly decreased from 88.7% in 2010. In 2019 4.1% of Holden residents work from home, an increase from 2010 when it was only 3.3%.

Table 2. Transportation Methods Used in Holden, MA.

Commuting	2019	2010
Drive Alone	87.6%	88.70%
Carpooled	6.5%	6.20%
Public Transporation	0.3%	0.60%
Walked	0.8%	0.90%
Bicycle	0.1%	0.10%
Taxi, motorcycle or other means	0.7%	0.20%
Work from Home	4.1%	3.30%

## D. GROWTH AND DEVELOPMENT PATTERNS

#### **Patterns and Trends**

The Town of Holden began as a small, farming community, slowly transitioned into a bustling mill town and has since cemented its place as a thriving suburb community that has managed to maintain much of its traditional New England, rural character. While the Town's population has continued to grow, Holden residents have continually expressed an appreciation of the small-town, rural character of the community and have a desire to preserve it.

However, Holden's top listed need in its Community Survey results for its 2019 Master Plan, was growth management. The Town has felt mounting pressure to expand to accommodate its growing population and the increases in housing development, which encroach on the Holden's natural resources. To maintain its character and open spaces, Holden has recognized that additional development should be carefully planned and managed

The Commonwealth has identified a need to aggressively pursue housing development in order to meet the demands of population growth. Recent analysis shows that the Commonwealth needs to produce around 500,000 new housing units by 2040 (Massachusetts Housing Partnership, 2019). Under the Town's existing zoning regulations, there is sustainable room for growth. Since Holden's 2008 Master Plan, which was updated in 2019, the Town has made multiple amendments to its zoning, allowing for more multi-family, mixed-use developments, and has encourage cluster zoning to preserve open space in low-density areas. The implementation of an Open-Space Residential Development bylaw allows developers to receive a density bonus in exchange for setting aside 50% of the total land area as publicly useable open space. This bylaw amendment allows Holden to balance its desire to grow while also maintain the open space and recreational amenities that define the Town.

#### Infrastructure

#### **Transportation**

Approximately 117 miles of public roads are maintained by the Town of Holden. An addition 12 miles of roads are maintained by MassDOT and another 36 are unaccepted roadways in Town, which includes private roads and those owned by the Massachusetts Department of Conversation and Recreation. Holden features access to several major regional roadways, including Interstate-190 (I-190), which passes north-to-south through the eastern border of Town, and Interstate-290 (I-290) and Interstate-90 (I-90) to the south towards Worcester.

Holden no longer receives fixed-route transit service provided by the Worcester Regional Transit Authority (WRTA). WRTA Route 32 was eliminated in 2009 and Route 14 was rerouted in 2013 to remain within the City of Worcester in 2013. However, Holden receives paratransit services operated by the Holden Council on Aging under contract with the WRTA. Due to its lack of transit service and small-town character, the primary mode of transportation in Town is the automobile.

Genesee & Wyoming Inc (G&W) owns and operates the Providence and Worcester Railroad (P&W), which runs from Worcester to Gardner and cuts through the central portion of Holden. The line is exclusively used for freight operations. The P&W line has six railroad at-grade crossings within the Town. None of these at-grade crossings currently have gates as none of them are at high volume roads.

In 2017, Holden had a total of 63.9 miles of sidewalks, primarily found along Main Street (Route 122A), Highland Street (Route 31), and other commercial roads within Town. While only a small percentage of Holden residents walk to work, maintaining and expanding sidewalk availability is vital to expanding access to local amenities, schools, and open spaces within Town. A comprehensive sidewalk network is essential to supporting populations that are less likely to

have access to a personal vehicle such as senior citizens, low-income persons, and those with disabilities.

#### **Bicycle and Pedestrian**

While Holden only has a total of 2.02 miles of existing bicycle facilities, there is great potential to expand. According to the Town's 2019 Master Plan, Holden has 27.01 miles of potential bicycle facilities. Similar to providing sidewalks, bicycle facilities provide transportation alternatives to populations who are less likely to have access to a personal vehicle.

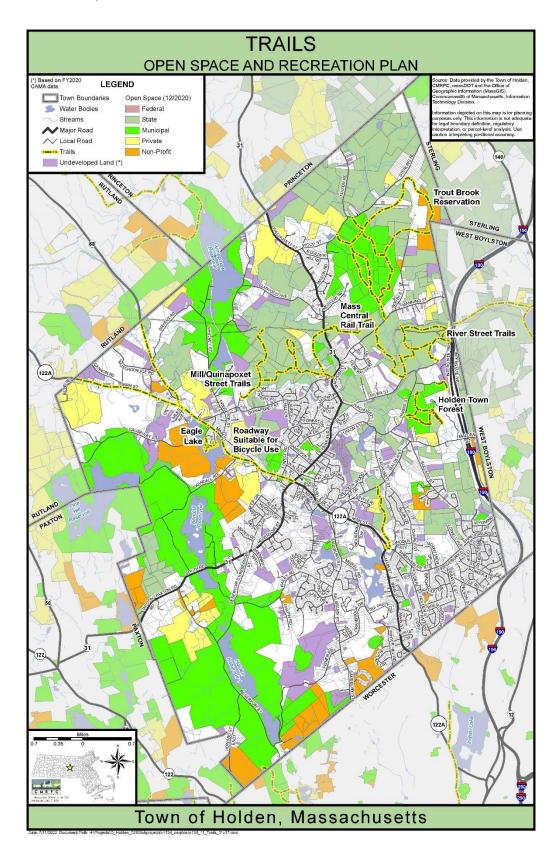
There are a few regional multi-use corridors that connects Holden to centers of activity throughout the region. These connected facilities are accessible to all groups and ages, leading to proud appeal throughout the community. A portion of the Massachusetts Central Rail Trail (MCRT) runs through the northern section of Holden. Currently, Holden's portion of the MCRT is approximately 5.2 miles, extending from MA-31 to the West Boylston town line.

The MCRT was constructed at the Holden and West Boylston town line at the underpass for the I-190 bridge to River Street. It continues on to Manning Street, and then on to Route 31 at Mill Street, totaling a distance of about 3.5 miles. The MCRT then continues on Mill Street for about one mile.

Two segments of the MCRT are included in Holden's existing bicycle facilities, near Manning Street (1.06 miles) and River Street (0.96 miles). An additional 4 miles of rail trail was being considered from the Rutland town line to MA-31, but has not yet been completed.

In December of 2018, the Holden Conservation Commission issued a Determination of Applicability (DOA) to Wachusett Greenways to construct an 1800 ft. re-route off the existing Rail Trail between Manning and River Street. The purpose of the re-route was to provide an alternate route with less than 5% slopes for handicapped access along the trail. The construction on the re-route was completed in late 2020.

In the years 2021 to 2022, Wachusett Greenways will be constructing two new miles of the MCRT from Mill Street to Princeton Street along forest access roads and on the old Mass Central Railroad. Wachusett Greenways also plans to reconstruct one mile of the MCRT from Manning Street to Route 31 at Mill Street. This section was built on steep grades with some tight curves. The route is being redesigned as a multi-use accessible trail. Wachusett Greenways will also be working towards needed connections from Princeton Street in Holden, MA to Wachusett Street in Rutland, MA. Biking and hiking opportunities in Holden can be viewed in the following trail map.



#### **Water Supply Systems**

More than 108 miles of water mains cover around half of the Town's area and serve a majority of residents and businesses in Holden, approximately 80%. Southern portions, along the Paxton border, and northern portions of town not served by the municipal water system rely on private wells. The water supply in Holden encompasses groundwater sources owned and operated by the Town and interconnections with the City of Worcester water system. The result is a blend of groundwater from Town sources and surface water from Worcester sources. The Town of Holden groundwater sources consists of five wells. The remaining portion of Holden's drinking water supply is provided by Worcester reservoirs through two interconnections with the City of Worcester. Based upon existing sources and the Intermunicipal Agreement with the City of Worcester, the Town's water system is considered adequate relative to water supply. It has sufficient capacity to serve projected development demands through at least 2030; however, it is crucial that proposed development in Town be evaluated in terms of its potential impact on the watershed.

#### **Wastewater System**

The Town of Holden operates a network of roughly 80 miles of sanitary sewer mains and 29 pump stations serving an area from Jefferson through Holden Center, to the Worcester line. The waste that is collected is sent via two state-owned interceptor lines through Worcester to the Upper Blackstone Wastewater Pollution Abatement District treatment plant in Millbury. A recent study completed for the Town by engineers at Weston & Sampson estimated around 170,000 gallons in additional daily sewer use (or 62 million gallons annually) can be expected from long-term development of buildable lots within the existing sewer service area. Those not served by the wastewater system rely on septic.

#### Stormwater Drainage

Much of Holden, particularly many of its rural and lightly developed areas, are served by "country drainage" rather than by purpose-built drainage infrastructure such as storm drains and drains pipes. This, along with the increase in development in Town and growing intensity of storms due to climate change, has been a cause of concern for Holden's Department of Public Works.

## Long term development patterns

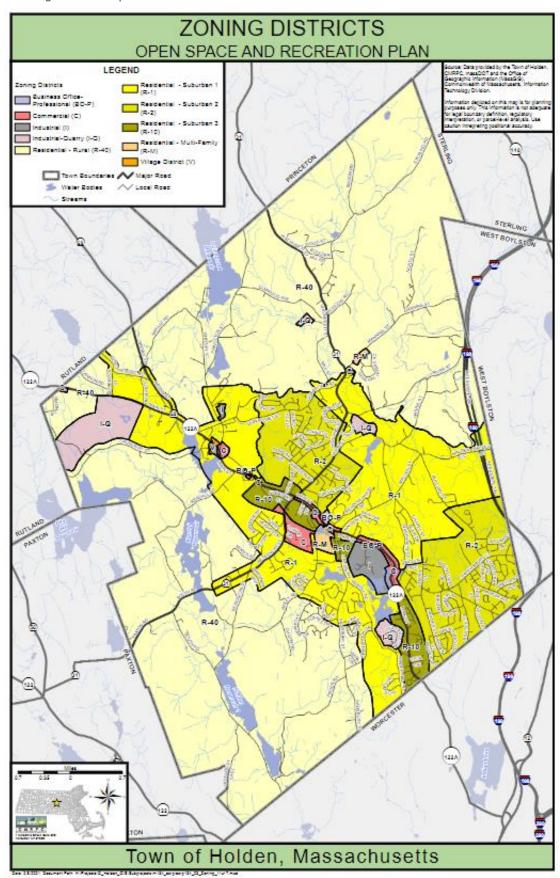
The Town has long term development plans to expand recreation opportunities in additional upland area abutting the new Department of Public Works Facility located at 18 Industrial Drive. This site has the opportunity to expand on a variety of recreational field options and provide accessory uses such as walking fields and outside adult workout areas. The potential for a trail and bicycle connection to the Dawson Recreation Area located on Salisbury Street is also being investigated. The Industrial Drive Concept map, field usage concept, and user groups and parking concept can be viewed on pages 30-32.

The Town will continue to expand on pedestrian and bicycle connections working with the Commonwealth Shared Streets program which identifies important sidewalk and bicycle path connections to points of destination throughout Town. The Town is also in the process of updating the Zoning Bylaw by creating a Village District Bylaw which will allow for a variety of residential uses with light commercial and business uses. Creating shared spaces and allowing for flexibility with development layouts, with a primary goal of retaining the New England style small town feel which currently exists and is appreciated in Town.

#### **Zoning**

Holden is divided into 10 zoning districts, categorized broadly into Residential, Commercial/Industrial, and Overlay Districts. The majority of the Town is zoned Rural Residential, which creates large parcel neighborhoods. Industrial, Commercial, Business-Office Professional, Village Center, and Multifamily Residential define a minority of the land in Town largely clustered along the Main Street Corridor.

The Town has five exclusively residential zoning districts and has five commercial and industrial zoning districts. The locations of each of these districts is noted in the Zoning Map on the following page. The largest residential district (R-40) is also the most restrictive of all the residential-only districts and has the largest capacity for residential expansion. Of the approximately 4,269 acres in residential districts identified as developable, approximately 71% are located in the R-40 district. Under current regulations, this zone is estimated to have a development capacity of around 4,103 additional units. The largest non-residential zoning district is the I-Q zone, which represents close to 10% of total land area. Build-out estimates show that there are almost 2.5 million sq. ft. of commercial or industrial development capacity in this district.



Map 5. Industrial Drive Master Plan Concept Map





II Sports										
Park/Facility	Field	Field Type	Sports Played On Field	Teams   Activity	Total Hours in Use Per Week	# of Weeks in Season	Total Hours in Use Per Season Per Team	Total Hours Per Field Per Season	Recommended Hours of Use Per Season	f Notes - Available Hours
			Soccer	Mountview MS Soccer	14	10	140			M-F: 3pm-6pm, "Wed: 3pm-5pm
	Field A	Rectangular Multi-use	Football	Mountview MSFootball	2	10	20	295	175 - 250	Wed: 5pm-7pm
Mountview Middle			Flag Football	Mountview MS Flag Football	15	9	135			Sat: 8am-dusk, Sun: 11am-dusk
School			Field Hockey	Mountview MS Field Hockey	15	10	150			M-F: 3pm-6pm
	Field B	Baseball	Baseball	Holden Baseball	40	10	400	550	175 - 250	M-F: 6pm-dusk, Sat. 8am-dusk, Sun: 11am-dusk
	Field C	Softball	Softball	Holden Girl's Softball	39	10	390	390	175 - 250	M-F: 5pm-dusk, Sat: 8am-dusk, Sun: 11am-dusk
Jefferson	Jefferson Field	Baseball/ Rectangular Multi-use	Flag Football	Holden Youth Flag Football	15	9	135	135	175 - 250	M-F: 4pm-dusk, Sat: 8am-dusk, Sun: 11am-dusk
Bubar	Bubar Field	Baseball	Baseball	Holden Baseball	40	10	400	400	175 - 250	M-F: 4:30pm-dusk, Sat: 9am-dusk, Sun: 11am-du
	Field 1	Rectangular Multi-use	Soccer	Holden Youth Soccer	31	10	310	310	175 - 250	M-F: 4pm-dusk, Sat: 8:30am-dusk, Sun: 11am-du
	Field 2	Rectangular Multi-use	Soccer	Holden Youth Soccer	31	10	310	310	175 - 250	M-F: 4pm-dusk, Sat: 8:30am-dusk, Sun: 11am-du
avis Hill Elementary	Field 3	Rectangular Multi-use	Flag Football	Holden Youth Flag Football	15	9	135	135	175 - 250	M-F: 4pm-dusk, Sat: 8:30am-dusk, Sun: 11am-du
School	Softball Field 1	Softball	Softball	Holden Girl's Softball	39	10	390	390	175 - 250	M-F: 5pm-dusk, Sat: 8am-dusk, Sun: 11am-dusk
	Softball Field 2	Softball	Softball	Offline	0	0	380	0	175 - 250	IN/A
	Sortball Field 2	Soltball	Soltball	Office	0	U	U		175 - 250	ien.
Dawson Elementary	Field A	Softball	Flag Football	Holden Youth Flag Football	21	9	189	189	175 - 250	M-F: 4pm-dusk, Sat: 8:30am-dusk, Sun: 11am-du
School	Field B	Softball	Flag Football	Holden Youth Flag Football	21	9	189	189	175 - 250	M-F: 4pm-dusk, Sat: 8:30am-dusk, Sun: 11am-du
	Field 1	Baseball	Flag Football	Holden Youth Flag Football	21	9	189	589	175 - 250	M-F: 4pm-dusk, Sat. 7:30am-2pm, Sun: 11am-2p
Mayo Elementary			Baseball	Holden Baseball	40	10	400			Sat: 2pm-dusk, Sun: 2pm-dusk
School	Field 2	Rectangular Multi-use	Flag Football	Holden Youth Flag Football	21	9	189	239	175 - 250	M-F: 4pm-dusk, Sat: 8am-2pm, Sun: 11am-dusk
		Treatment of the second	Lacrosse	Holden Lacrosse	5	10	50			Sat: 2pm-dusk
Light Department	Light Department Field	Rectangular Multi-use	Multi-use	N/A	0	0	0	0	175 - 250	No Requests
Rice School	Rice Ballfield	Softball	Softball	N/A	0	0	0	0	175 - 250	No Requests
1000 0011001			00.000							
Holden Recreation Center	Recreation Field	Baseball/ Rectangular Multi-use	Soccer	Holden Youth Soccer	20	10	200	200	175 - 250	M-F: 4pm-dusk, Sat: 8:30am-dusk, Sun: 11am-du
				N/4						
Trout Brook	Trout Brook Field	Rectangular Multi-use	Multi-use	N/A	0	U	0	0	175 - 250	No Requests

Table 4. Industrial Drive Concept Field Usage, Spring Season

Park/Facility	Field	Field Type	Sports Played	Teams   Activity	Total Hours in Use				Recommended Hours of	Notes	
,,			On Field		Per Week	Season	Season Per Team	Field Per Season	Use Per Season		
	Field A	Rectangular Multi-use	Lacrosse	Holden Lacrosse	28	11	308	308	175 - 250	M-F: 5pm-dusk, Sat: 9am-dusk, Sun: 11am-dusk	
	T reid A	rvectarigatar waterase	Lacrosse	Mountview MS Baseball	15	11	165	500		M-F: 3pm-6pm	
Mountview Middle	Field B	Baseball	Rasehall	Baseball	Holden Baseball	40	11	440	627		M-F: 6pm-dusk, Sat: 9am-dusk, Sun: 1:30pm-dusk
School				Holden Tops Soccer	2	11	22			Sun: 11:15am-1:15pm	
				Mountview MS Softball	10	11	110			M-F: 3pm-5pm	
	Field C	Softball	Softball	Holden Girl's Softball	39	11	429	539	175 - 250	M-F: 5pm-dusk, Sat: 8am-dusk, Sun: 11am-dusk	
Jefferson	Jefferson Field	Baseball/Rectangular Multi-use	Baseball	Holden Baseball	40	11	440	440	175 - 250	M-F: 4pm-dusk, Sat: 9am-dusk, Sun: noon-dusk	
Bubar	Bubar Field	Baseball	Baseball	Holden Baseball	40	11	440	440	175 - 250	M-F: 3pm-5pm, Sat: 9am-dusk, Sun: noon-dusk	
	Field 1	Rectangular Multi-use	Soccer	Holden Youth Soccer	31	11	341	341	175 - 250	M-F: 5pm-dusk, Sat: 9am-dusk, Sun: noon-dusk	
	Field 2	Rectangular Multi-use	Soccer	Holden Youth Soccer	31	11	341	341		M-F: 5pm-dusk, Sat: 9am-dusk, Sun: noon-dusk	
vis Hill Elementary	Field 3	Rectangular Multi-use	Soccer	Holden Youth Socoer	31	11	341	341		M-F: 4pm-dusk, Sat. 8am-dusk, Sun: 11am-dusk	
School	Softball Field 1	Softball	Softball	Holden Girl's Softball	39	11	429	429		M-F: 4pm-dusk, Sat: 8am-dusk, Sun: 11am-dusk	
	Softball Field 2	Softball	Softball	Offline	0	0	0	0		N/A	
awson Elementary	Field A	Softball	Softball	Holden Girl's Softball	38	11	418	418	175 - 250	M-F: 4pm-dusk, Sat: 9am-dusk, Sun: 11am-dusk	
School	Field B	Softball	Baseball	Holden Baseball	40	11	440	440	175 - 250	M-F: 4pm-dusk, Sat: 9am-dusk, Sun: 11am-dusk	
Mayo Elementary	Field 1	Baseball	Baseball	Holden Baseball	40	11	440	440		M-F: 4pm-dusk, Sat: 8am-dusk, Sun: 10am-dusk	
School	Field 2	Rectangular Multi-use	Lacrosse	Holden Lacrosse	35	11	385	385	175 - 250	M-F: 4pm-dusk, Sat: 9am-dusk, Sun: 9am-dusk	
ight Department	Light Department Field	Rectangular Multi-use	Lacrosse	Holden Lacrosse	29	11	319	319	175 - 250	M-F: bpm-dusk, Sat: 8am-dusk, Sun: 11am-dusk	
8. 0	Rice Ballfield	Softball	Baseball	Holden Baseball	40		440	440	175 - 250	IM-F: 4pm-dusk, Sat. 9am-dusk, Sun; noon-dusk	
Rice School	Rice Ballfield	Softball	Baseball	Holden Baseball	40	- 11	440	440	1/5 - 250	NFF: 4pm-dusk, Sat: 9am-dusk, Sun: noon-dusk	
olden Recreation		Baseball/ Rectangular	_		-						
Center	Recreation Field	Multi-use	Soccer	Holden Youth Soccer	20	11	220	220	175 - 250	M-F: 5pm-dusk, Sat: 9am-dusk, Sun: noon-dusk	
Trout Brook	Trout Brook Field	Rectangular Multi-use	Multi-use	N/A	0		0	0	175 - 250	No Requests	
HOUL BLOOK	HOUL BROOK FIELD	Nectangular Multi-USE	Mulu-use	1673		Ü	U	U	170 - 200		

Table 5. Industrial Drive Concept User Groups and Parking.

#### Accomodated User Groups & Parking

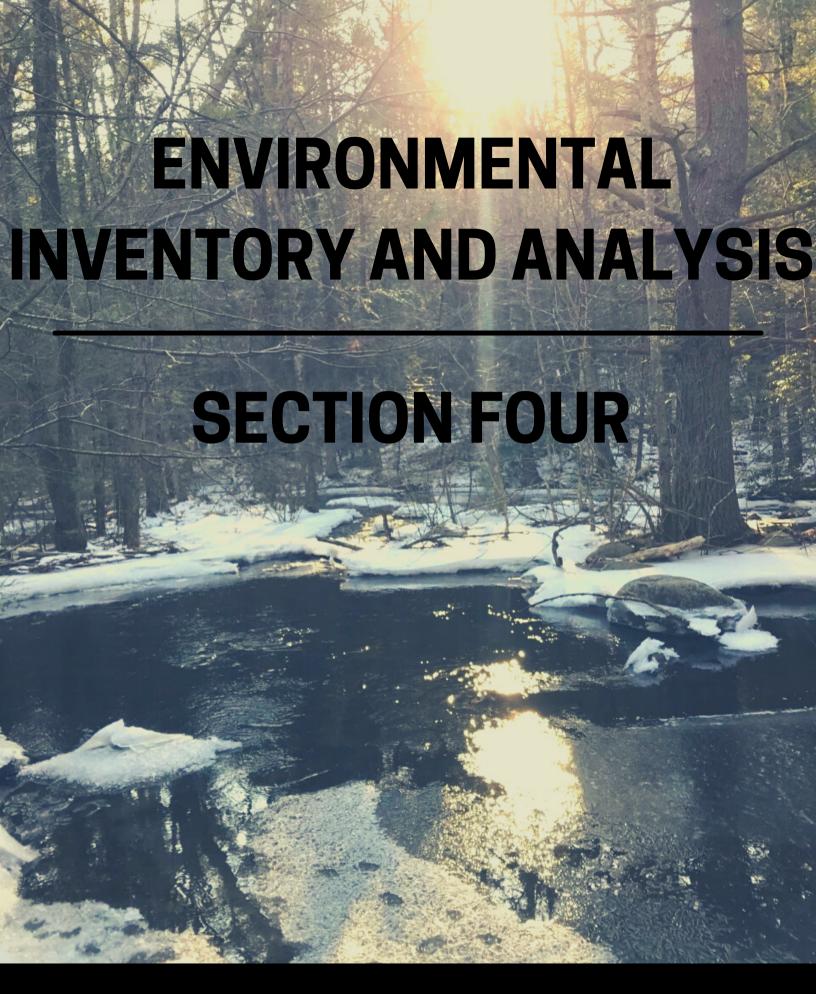
#### 18 Industrial Drive Property

Field	Size	Hours Available	Groups this could accommodate	Parking Needs per Game	Parking Needs per Field per Sport	Notes
			1- Full Size Lacrosse 330' x 180' 2- Small Sided Lacrosse 210'x135'		35-40 Spaces 48-70 Spaces	10 v 10=20 players on field, 10-20 subs=30-40 players.  8 v 8=16 players on field, 8-16 subs= 24-32 players
			3- Flag Football 210'x90'	28 Spaces	84 Spaces	7 v 7=14 players on field, 14 subs=28 players
Synthetic Turf Field w/ Lights	330'x210'	1500-2000	1- U13-U19/HS Soccer 330'x210' 2- U11-U12 Soccer 210'x135' 2- U9-U10 Soccer 195'x135' 4-6- U6-U8 Soccer 105'x75' (105'x45')	26-36 Spaces 22-24 Spaces 18 Spaces	44-48 Spaces 72-108 Spaces	11 v 11=22 players on field, 12-22 subs=34-44 players   9 v 9=18 players on field, 8-18 subs, 26-36 players   7 v 7=14 players on field, 8-10 subs=22-24 players   5 v 5=10 players on field, 8 subs=18 players
			1- Field Hockey 300'x180'	34-44 Spaces	34-44 Spaces	11 v 11=22 players on field, 12-22 subs=34-44 players
			1- Small Sided Lacrosse 210'x135'	24-35 Spaces	24-35 Spaces	8 v 8=16 players on field, 8-16 subs= 24-32 players
Natural Turf Field	210'x135' 350	10'x135' 350-500	1- U1-U12 Soccer 210'x135 1- U9-U10 Soccer 195'x135' 2-4- U6-U8 Soccer 105'x45'	22-24 Spaces	22-24 Spaces	9 v 9=18 players on field, 8-18 subs, 26-36 players 7 v 7=14 players on field, 8-10 subs=22-24 players 5 v 5=10 players on field, 8 subs=18 players

22-108 Spaces

#### Holden Recreation Center

			1- Unified Lacrosse 360'x160'	35-40 Spaces	35-40 Spaces	10 v 10=20 players on field, 10-20 subs=30-40 players.
			1- Small Sided Lacrosse 210'x135'	24-35 Spaces	24-35 Spaces	8 v 8=16 players on field, 8-16 subs= 24-32 players
			1- Field Hockey 300'x160'	34-44 Spaces	34-44 Spaces	11 v 11=22 players on field, 12-22 subs=34-44 players
		1500-2000	1- Football 360'x160'	80-100 Spaces	80-100 Spaces	40-50 players per team=80-100 players
Synthetic Turf Field (Dual Baseball & 360'x165'	360'x165'		1- Flag Football 210'x90'	28 Spaces	28 Spaces	7 v 7=14 players on field, 14 subs=28 players
Rectangular)			1- U13-U19/HS Soccer 330'x165'	34-44 Spaces	34-44 Spaces	11 v 11=22 players on field, 12-22 subs=34-44 players
			1- U11-U12 Soccer 240'x165'	26-36 Spaces	26-36 Spaces	9 v 9=18 players on field, 8-18 subs, 26-36 players
			3- U9-U10 Soccer 165'x105'	22-24 Spaces	66-72 Spaces	7 v 7=14 players on field, 8-10 subs=22-24 players
			4-6- U6-U8 Soccer 105'x75' (105'x45')	18 Spaces	72-108 Spaces	5 v 5=10 players on field, 8 subs=18 players
			4 1:41-1(0-91-11.001			
			1- Little League/Softball 60'dia. w/ 200'outfield	24-40 Spaces	24-40 Spaces	12-20 players per team=24-40 players



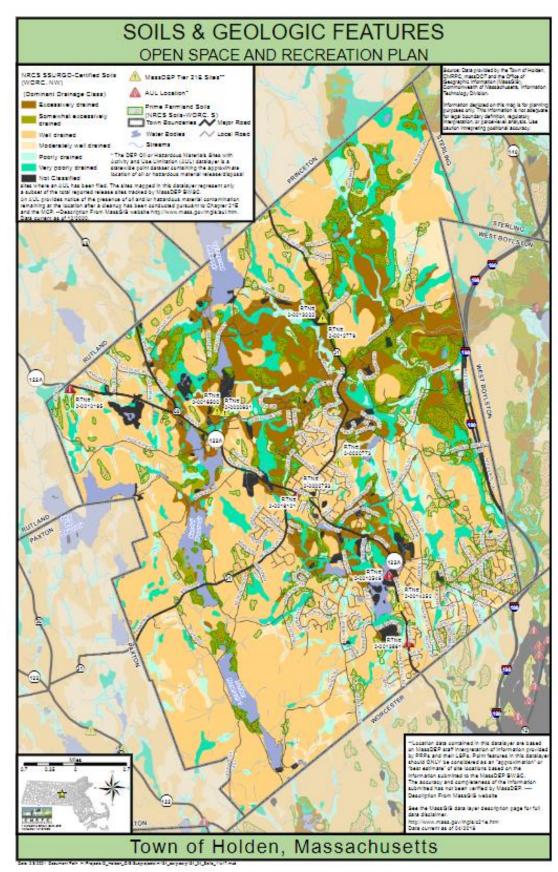
# ENVIRONMENTAL INVENTORY AND ANAYLSIS

# A. GEOLOGY, SOILS, AND TOPOGRAPHY

The topography of Holden is moderately hilly, and the western section of Town steeper than that of the eastern section. USGS elevations range from a high of 1,395 feet above mean sea level on Asnebumskit Hill at the Paxton/Holden line, to less than 550 feet above mean sea level on the Quinapoxet River, resulting in a relative relief of 845 feet within the 35.75 square mile area. Elevations of 650 to 750 feet above mean sea level are most common throughout the Town.

A joint study by the Soil Conservation Service (SCS) of the U.S. Department of Agriculture (USDA) and the Central Massachusetts Regional Planning Commission (CMRPC) of the soil conditions found in Holden delineates 6 "general soil areas" with different soil characteristics and development (filtering) limitations with each category. Most of Holden's soil falls into the Paxton-Woodbridge-Canton and Hinckley-Merrimac-Windsor groupings with moderate limitations toward development. Although almost 7% of Holden's developable land has slopes in excess of 15%, development in these areas could occur with technological changes.

Map 5 on the following page displays the local surficial geology and soil typologies in the Town of Holden.



# B. LANDSCAPE CHARACTER

Holden's landscape character is that of a typical small New England town. Rolling hills of pastureland and wood lots provide the perfect backdrop for the white church steeples and clock towers that are characteristic of the New England countryside. Winding country roads traverse terrain ranging from gently rolling land to steep hillsides creating many opportunities for beautiful views across the undeveloped watershed and reservoir properties as well as the preserved conservation and recreation areas throughout the Town. Scenic Resources and Unique Environments are included in Section F of the Environmental Inventory and Analysis.

The Town is committed to preserving the landscape character and aesthetics of Holden. Future development of much needed commercial and industrial sites for economic development as well as residential growth should be managed carefully to ensure that Holden remains a town with substantial open spaces for wildlife and for its residents to enjoy. To address this, the Town's Zoning Bylaw contains a Phased Development Bylaw, outlining development goals to preserve the Town's character and direct development in the area.

# C. WATER RESOURCES

A river's watershed is the area in which all precipitation that falls ultimately runs into that river. Holden resides in part in the Blackstone River Watershed and in part in the Nashua River Watershed. Only about 18% of the Town falls in the Blackstone River Watershed. Southern parts of Holden lie in the Tatnuck Tributary Basin and the Beaver Brook Tributary Basin of the Blackstone River Watershed Basin. The boundaries are shown on Water Resources Map 1 located at the end of this chapter.

# **Blackstone River Watershed**

Originating as a series of streams in the hills of Worcester, the Blackstone River flows 48 miles south to Rhode Island, dropping 450 feet before emptying into Narragansett Bay near Providence. The Blackstone River Watershed comprises a total of 640 square miles, with 382 square miles located in south central Massachusetts and 258 square miles in northern Rhode Island. The length of the Blackstone River is evenly divided between Massachusetts and Rhode Island, with 24 river miles in each state. The major tributaries of the Blackstone River are the Quinsigamond, West, Mumford, Mill and Peters Rivers.

1,300 acres of lakes, ponds and reservoirs are also located within the watershed. Twenty-nine Massachusetts municipalities and ten Rhode Island municipalities are located either entirely or partially within the Blackstone River Watershed. Of these thirty-nine towns, nineteen are located either entirely or predominantly (>50% of land area) within the Blackstone River Watershed. The boundaries of the Watershed Basins and their Tributary Basins are shown on the Water Resources Map 1.

The Blackstone Watershed to the south and southwest included the area around Holden Reservoirs 1 and 2. The reservoirs in the area form the backbone of the City of Worcester public water supply system. The City of Worcester owns and protects significant tracts of undeveloped Holden forestland within the watershed.

## Nashua River Watershed

About 82% of the Town of Holden lies within the Nashua River Watershed. The Nashua River is located in the central highlands of southern New England. The river flows northward into the Merrimack River in Nashua, New Hampshire. The Nashua River's Watershed encompasses 538 square miles and 32 communities, (including Holden) in north central Massachusetts and southern New Hampshire, providing drinking water for over one million people. Water quality is monitored at several locations: however, there is no monitoring station in Holden, the closest is located in Lancaster.

The Nashua River Watershed has four major sub-basins. The part of Holden that lies within the Nashua River watershed lies entirely within the Wachusett Reservoir Sub-basin. The remaining 3 major sub-basins are the Mainstem, the North Nashua, and the Squanassitt Nissitissitt.

Within the Nashua River Watershed and Wachusett Major sub-basin, Holden lies mostly in the Quinapoxet River Tributary Basin and partially in the Stillwater River Tributary Basin and the Wachusett Reservoir Tributary Basin. For each tributary basin there is an overview, a geographic and ecosystem overview, an accounting of land ownership and land use patterns, a summary of major water resources issues, a review of recreation and priority habitat areas, and finally a presentation of resource protection goals and recommended actions.

# The Quinapoxet River Tributary Basin

Most of this tributary basin lies in the Massachusetts communities of Holden, Princeton, and Rutland with parts extending into Paxton and West Boylston. Located in the "fuzzy" zone encompassing parts of both the Upper Worcester Plateau and the Southern New England Coastal Plains and Hills ecoregions of central Massachusetts, this area drains into the Wachusett Reservoir, the largest body of open water in the greater Nashua River watershed.

The topography is generally hilly, encompassing numerous flatter wetlands, broad valleys, and floodplains. Because of the low percentage (8.2%) of total impervious surfaces - namely, paved areas such as streets, driveways, and parking lots - in this whole sub-basin, compromised stormwater and other non-point sources of contaminants (for example: pesticides, fertilizers, oils, asphalt, pet wastes, salt, sediment, litter and other debris) are not pressing concerns. As detailed below, there is a large amount of permanently protected undeveloped open space in this tributary basin.

The area is predominantly forested (hardwood mixed with softwood) or wetland with low-density residential settlement and some concentrated settlements and strip development located near town centers and along major roads. 48% of this tributary basin is permanently protected land. Agriculture (notably "hobby farms" and backyard horse paddocks), gravel extraction, commercial operations, industry and other developed land uses are less significant.

Water from a significant portion of the land that lies within the natural drainage basin to the Quinapoxet River (and thus the Nashua River watershed) is collected within a series of reservoirs and transmitted by man-made diversions in the City of Worcester water supply system. Outflows from Maple Spring Pond (also known as Peter Carr Pond) enter the Quinapoxet Reservoir. Water from the Quinapoxet Reservoir provides some flow to form the headwaters of the Quinapoxet River, but in large part is pumped out of the Nashua River watershed to the City of Worcester reservoir system in the southern part of Holden. Similarly, water from Pine Hill Reservoir (located mostly in Paxton and Rutland), Stump Pond, Eagle Lake, and Kendall Reservoir is directed, in large part to Holden Reservoir #1, within the Worcester potable water system.

# The Stillwater River Tributary Basin

Most of this tributary basin lies in the communities of Sterling, Princeton and West Boylston with parts extending into Holden, Leominster, and Westminster. Also, located in the "fuzzy" zone encompassing parts of both the Upper Worcester Plateau and the Southern New England Coastal Plains and Hills ecoregions of central Massachusetts, this area drains into the Wachusett Reservoir.

The topography is generally hilly, encompassing numerous flatter wetlands, broad valleys, and floodplains. This sub-basin has a large amount (49%) of permanently protected undeveloped open space owned by Department of Conservation and Recreation (DCR), the municipalities, and others, particularly along the lower Stillwater. Another significant portion of private lands are classified as MGL Chapter 61, 61A or 61B. (See page 47 for an explanation of Chapter lands and their open space significance.)

Compromised stormwater and other non-point sources of contaminants (for example: pesticides, fertilizers, oils, asphalt, pet wastes, salt, sediment, human litter and other debris) are not a pressing concern because of the low percentage (less than 8%) of total impervious surfaces -- namely, paved areas such as streets, driveways, and parking lots-- for this whole tributary basin. As the Stillwater watershed becomes increasingly developed, there will be more threat of water quality deterioration from risks associated with urbanization, including thermal pollution, over-fertilization of lawns, improper handling of hazardous wastes, septic system leachate, street runoff, and the like.

The land-use pattern is predominantly undeveloped forest (hardwood mixed with softwood) or wetland plus low-density residential settlement in the hilly upland areas. Concentrated

settlements and strip developments are located near town centers and along major roads. Heavily traveled Interstate 190 runs through this tributary basin. The highway which connects Worcester and Leominster has led to and will continue to lead to increased development pressures, primarily of single-family residences. Agriculture (notably "hobby farms" and backyard horse paddocks), commercial operations, industry and other developed land uses are less prevalent.

# The Wachusett Reservoir Tributary Basin

Most of this 16,024 acre (surface water not included) tributary basin lies in the Massachusetts communities of Boylston and West Boylston with parts extending into Sterling and Holden. Located in the Southern New England Coastal Plains and Hills ecoregion of central Massachusetts, this area drains into the Wachusett Reservoir. The Southern New England Coastal Plains and Hills ecoregion is an area with generally similar soils, vegetation, shape of the land, and especially, moderate climate and bedrock geology (glacial tills and outwash deposits). Topography is generally hilly, encompassing numerous flatter wetlands, broad valleys, and floodplains.

The land-use pattern is nearly 75% forest (hardwood mixed with softwood) or wetland plus low-density residential settlement as well as concentrated settlements and strip development located near town centers and along major roads. Agriculture (notably "hobby farms" and backyard horse paddocks), gravel extraction, commercial operations, industry and other developed land uses are less significant.

The Appendix contains a more in-depth description of each Nashua River Watershed Tributary Basin Major Water Resource Issues, Recreation and Priority Habitat Areas, and Resource Protection Goals and Recommended Actions.

The Habitat Cores Areas of the Nashua River Watershed within Holden includes the following:

- 3 Important Ridgeline Corridors
- 1 Large Focus Area the Savage Hill WMA/Quinipoxet Reservoir
- 2 Medium Focus Areas Pine Hill Reservoir and the Poutwater Pond
- 1 Small Focus Area- Unionville Pond/Quinipoxet River.

Because a large area of Holden is located within the Wachusett watershed, many of the Town's lakes and streams are protected beyond state regulations by the WaterShed Protection Act (WsPA), often referred to as the Cohen Bill, under the jurisdiction of the DCR. DCR has greatly increased their land holdings in the Town and allow passive recreation on all DCR property.

# **Surface Water**

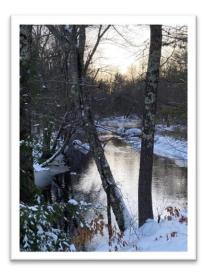
Like many communities, Holden's water resources are an invaluable asset to the Town, providing drinking water, flood control, recreational opportunities, wildlife habitat and scenic

diversity. Holden has at least 12 ponds, 4 reservoirs, 1 lake, 1 river, and 9 brooks in addition to possible unnamed water bodies. These are indicated on the Water Resources Map 2. All surface waters in Town are classified as "Class B" (fishable, swimmable) waters with the exception of the reservoirs and their tributaries, which are "Class A." (Note these designations refer to purposes not necessarily existing conditions.) As noted previously, because many of the reservoirs are used for drinking water purposes, access to the areas surrounding them is severely limited. Holden has 362 acres of open water and over 6 miles of the Quinapoxet River run through the town.

All of the reservoirs (Quinapoxet, Pine Hill, Kendall, and Holden Nos. 1 and 2) are restricted from public access of any kind. Eagle Lake has a Town beach and a shallow boat launch area. Some ponds, including Dawson, Maple Spring, Chaffin, and Unionville lack designated public access areas but are frequented by fishermen and other users of small boats. The locations of the surface water bodies are shown on the Water Resources Maps 1 and 2. Many of these smaller bodies of water experience eutrophication, which can be defined as excessive richness of nutrients in a body of water due to frequent runoff. This nutrient load can cause a dense growth of plant life and negative impacts to habitat quality, resulting in diminished recreational opportunities on these water bodies. The following ponds, lakes and reservoirs are located in Holden:

- Bailey Road Pond, Bailey Rd.
- Bryant Pond, Main St.
- Chaffin Pond, 122A
- Cournoyer Pond, Mason St.
- Dawson Pond, Highland St.
- Eagle Lake, Causeway St., North Main St. & Kendall Rd.
- Edson Pond, Pommogussett Rd. & Campbell St.
- Holbrook Swamp
- Holden Reservoir Number One, Reservoir St.
- Holden Reservoir Number Two, Reservoir St.
- Kendall Reservoir, Between Kendall Rd. & South Rd.
- Maple Spring Pond, Princeton St. & 122A
- Norcross Pond No. 3, Off 122A
- Pine Hill Reservoir, Emerald Rd.
- Poutwater Pond, Near Sterling & Mason Rds. near the Princeton Line
- Quinapoxet Reservoir, Old Mill Rd., Princeton St.
- Streeter Pond, Pond St.
- Stump Pond, Causeway St. & North Main St.
- Unionville Pond, Union Street St., Harris St. & Wachusett St.
- Unnamed Pond, Off of Willow Broad Rd.

One of Holden's prize natural resources is the Quinapoxet River. More than 6 miles of the river's 7.4 miles run through the Town. Beginning at the Quinapoxet Reservoir, this river corridor offers Holden opportunities for active and passive recreation, education and habitat preservation. The Quinapoxet is a major tributary of the Wachusett Reservoir, located in West Boylston. The Wachusett Reservoir is part of the water supply system of the City of Boston and many of its surrounding communities. Holden residents are not consumers of this potable water. Protection of this water resource is regulated by the DCR. DCR has greatly increased land acquisitions for water quality protection. These open space acquisitions provide great aesthetic and passive recreational



resources for Holden. DCR also regulated, through the Watershed Protection Act Regulations, development in close proximity to the mapped rivers and streams that are tributaries to the Wachusett Reservoir. DCR regulations also limit development on some mapped areas of sand and gravel deposits. In addition to the Quinapoxet River, the following rivers, streams and brooks are located are shown on the Water Resources Maps1 and 2:

- Asnebumskit Brook flows into the Quinapoxet River
- Ball Brook flows into Trout Brook
- Cedar Swamp Brook
- Chaffin Brook flows into Unionville Pond
- Cold Brook flows into Cournoyer Pond
- Poor Farm Brook flows into Chaffin Pond
- Scott Brook flows into Holden Reservoir 1
- Silver Spring Brook flows into Holden Reservoir 1
- Tatnuck Brook flows into Holden Reservoir 1
- Trout Brook flows into the Quinapoxet River
- Wadsworth Brook flows into Holden Reservoir 1
- Warren Tannery Brook
- Worcester Brook

Kendall Reservoir and Holden Reservoir Number 1 and 2 are located in Holden and owned by the City of Worcester for their water supply. To protect the water quality of these reservoirs the City of Worcester has greatly increased land acquisitions. In 2018, the City of Worcester agreed to pay \$95,000 for conservation restrictions on 50 acres off South Road that contains the headwaters of the Wadsworth Brook that runs into Holden Reservoir 1.

Some important aquifers, ground water recharge and source areas are found within the boundaries of Holden. A small, high-yield aquifer, coarse sand and gravel soils with a potential well yield of more than 300 gallons per minute (gpm), lies under the Quinapoxet well fields.

Medium-yield aquifers (100 to 300 gpm potential well yield) are located along Asnebumskit Brook and Warren Tannery Brook and along Chaffin Brook and Unionville Pond. Another medium-yield aquifer is located along a segment of Trout Brook. The Town's existing water supply wells are located on the Quinapoxet aquifer and at these medium-yield aquifers. Due to the extensive use of Holden reservoirs for drinking water by the City of Worcester and surrounding towns, the Zones of Contribution have been thoroughly mapped and delineated. Holden Water Department receives its drinking water from five wells and two municipal connections with the City of Worcester.

The system also includes an emergency source at Muschopauge Pond. The wells are located in an aquifer with a high vulnerability to contamination due to the absence of hydrogeologic barriers (such as clay) that prevent contaminant migration.

The water supply protection areas are mostly a mixture of residential and forested land uses. The overall ranking of susceptibility to contamination (shown in the table below) for the systems is high, based on the presence of at least one high threat land use within the water supply protection area.

Table 6. Water Supply Protection Area Contamination Susceptibility

Source Name	DEP Source ID #	Source Type	Location of Source	Susceptibility
Quinapoxet Wells	2134000-02G	Two Gravel Packed Wells	Adjacent to	Medium
	2134000-06G		Wachusett Street	
Mill Street Well Field	2134000-03G	Tubular Well Field	Adjacent to Mill	Medium
			Street	
Mason Road Well Field	2134000-04G	Tubular Well Field	Adjacent to Mason	Medium
			Road	
Spring Street Well	2134000-05G	Gravel Packed Well	Adjacent to Spring	High
			Street	
Brattle Street	2134000-01P	Interconnection with	Brattle Street	
Interconnection		Worcester		
Salisbury Street	2134000-02P	Interconnection with	Salisbury Street	
Interconnection		Worcester		

The DEP Source Water Assessment and Protection (SWAP) Report for Holden Water Department elaborates on Recommendations for Zone I, Residential Land Use for Zone II and IWPAs (20%), transportation corridors through Zone II and IWPAs, hazardous materials storage and use in Zone II and IWPAs, protection planning, and finally source water protection.

## Flood Hazard Areas

Most of Holden falls with areas of minimal flooding. The significant floodplains exist along the Quinapoxet River, its tributaries, and their associated wetlands. Flood Insurance Rate Maps (FIRM) for the Town of Holden, Massachusetts Worcester County Community Panel Number 250309 (July 2, 1981) demonstrate the flood prone areas. Five maps (panels 0005, 0006, 0007, 0008, 0015, and 0020) cover the town of Holden. Most water bodies in town are described as Zone A - Area of 100-year flood; base flood elevations and flood hazard factors not determined. Some water body shorelines and low-lying areas are described as Zone B - Areas between limits of the 100-year flood and 500 year flood; or certain areas subject to 100 year flooding with average depths less than one foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. Most land areas are described as Zone C - Areas of minimal flooding. According to the FIRM maps prepared by the Federal Emergency Management Agency (FEMA), Holden has approximately 1792.75 acres of land falling within the 100-year flood plan. The locations of the flood plains are shown on the Water Resources Map 2.

Among those areas described as Zone B are Worcester Brook, Warren Tannery Brook, Dawson Pond, Poor Farm Brook, a low-lying area east of Kendall Reservoir, a low-lying area between Mason and Moscow Roads, and low-lying areas near Pine Haven Drive, Chapel Drive, Lowell Avenue, and Mark Circle. Among those areas described as Zone A are Pine Hill Reservoir, Eagle Lake, Asnebumskit Brook Maple Spring Pond, Unknown Pond, Kendall Reservoir, Quinapoxet Reservoir, Quinapoxet River, Trout Brook, Unionville Pond, Cedar Swamp Brook, Holden Reservoirs 1 and 2, and Chaffin Pond.

Along the Asnebumskit River, further study has indicated that flood elevations are between 579 feet in the north and 560 in the south (Zone A4). Furthermore, the Poutwater Pond was previously determined to have a flood elevation of 695 feet (Zone A1). The town of Holden participates in the National Flood Program.

These flood-prone areas serve as giant sponges that can soak up enormous amounts of water and protect downstream areas that are more suitable for development or are already developed areas from more severe flooding. Existing environmental regulations restrict development in such areas.

## Wetlands

Wetlands, including both forested wetlands (1,646 acres) and non-forested wetlands (429 acres), are important water resources in Holden. They play a critical role in flood control and in maintaining water quality. There are no expansive areas of wetlands. Instead, smaller wetlands are found scattered about the Town. These wetlands provide visual variety, wildlife habitat, and help maintain a healthy environment. Carefully orchestrated access to some of these wetlands could increase community awareness of their value and interest as natural

habitat. Examples can be found at the trails at Trout Brook Reservation and the bog boardwalk at Poutwater Pond. More information on wetlands will be provided in the section on vegetation.

The Town recognizes that there is an increasing threat placed on the environment. Wetlands are a valuable resource for water quality protection, wildlife habitat and general environmental health. In 1996, the Massachusetts Rivers Protection Act amended the State's Wetlands Protection Act to establish an additional wetland resource area - Riverfront Area. Streams that are perennial (i.e. those which flow all year except during periods of drought) are designated as "Rivers" and the land within 200 feet of each side of the channel is protected from most incursions under the Massachusetts Wetlands Protection Act regulations as "Riverfront." A 100ft buffer zone is also required around wetland features and water reservoirs require 400ft buffers. The Holden Conservation Commission administers the state's Wetlands Protection Act regulations.

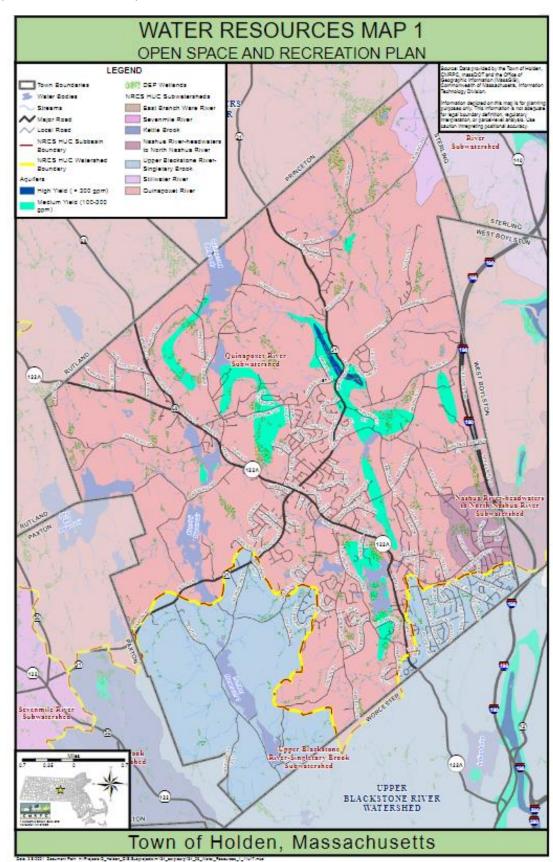
The Town has increased the protection of wetland resources by adopting a local Wetlands Bylaw in May 2001. This by-law was updated in 2011 and enacts a jurisdictional 25' No-Disturbance Zone for all resource areas excluding Riverfront Area and Buffer Zone. The local Bylaw also affords additional protections to vernal pool habitat. The term "vernal pool" shall include, in addition to scientific definitions found in the Conservation Commission Regulations, and the Wetlands Protection Act, any confined basin or depression not occurring in existing lawns, gardens, landscaped areas or driveways which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, contains at least 200 cubic feet of water at some time during most years, is free of adult fish populations, and provides essential breeding and rearing habitat functions for amphibian, reptile or other Vernal Pool community species, regardless of whether the site has been certified by the Massachusetts Division of Fisheries and Wildlife. The boundary of the Resource Areas for Vernal Pools shall be the mean annual high-water line defining the depression and an additional one-hundred feet, the jurisdictional buffer shall consist of an additional one hundred feet from the resource area.

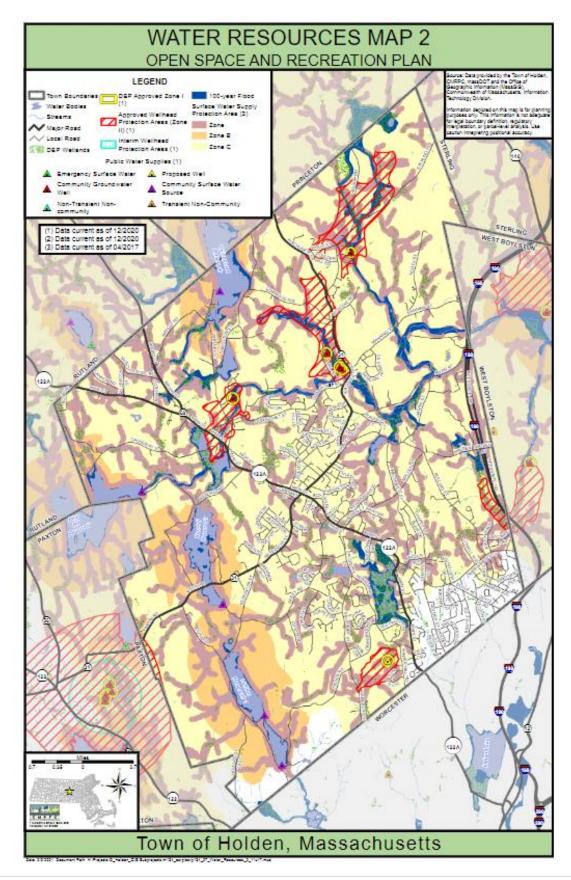
Holden is home to 27 vernal pools certified by the Natural Heritage and Endangered Species Program and 118 potential vernal pools. To deter non-compliance of both the local and state regulations the Conservation Commission has also adopted a provision to assess fines for violations.

According to the MassDEP, Holden contains 2,209 acres of wetlands. Wetlands areas are typically found near the perimeter of most surface water bodies, including ponds, lakes, brooks, and rivers, but also in low lying areas where groundwater approaches the surface. A large majority of wetland areas are shown on the Water Resources Map 2, though there are many smaller areas of wetlands throughout Holden not included on the map. The majority of bordering vegetative wetlands have ferns, skunk cabbage, pokeweed and cattails. Within Poutwater Pond, one of the best examples in the state of an acidic fen and Massachusetts first Nature Preserve, a 28-acre freshwater bog treats hikers to arrow-arum, spike-rush and Jack-in-

the-pulpit, Golden Club, and Dwarf Mistletoe. A floating bog mat provides very rare habitat for a number of uncommon species. Five other bogs, 2 of which produce cranberries, are located at Chaffin Pond (2), Laurel Hill Lane, and west and north of River Street respectively.

Map 7. Water Resources Map 1





# D. VEGETATION

Holden's vegetation ranges from standard field crops, such as hay, feed corn and sweet corn to a variety of natural species including typical forest mixed wood species and typical vegetation associated with wetlands, swamps and bogs. Farming has greatly diminished in the Town. According to the U.S. EPA, Holden lies within the Worcester Plateau Ecoregion and the Southern New England Coastal Plains and Hills Ecoregions. The Worcester Plateau Ecoregion contains the most hilly and mountainous area of Massachusetts' central upland. Elevations range from 500 to 1400 feet with some peaks above 1800 feet (Mt. Watatic and Mt. Wachusett). Transition hardwoods are common, but northern hardwoods also occur. Forested wetlands are common and surface waters tend to be acidic. The Southern New England Coastal Plains and Hills Ecoregion comprises plains with a few low hills. The forests of this region are mainly central hardwoods with some transition hardwoods and some elm-ash-red maple and red and white pine.

## **Forestland**

Woodlands are comprised of oaks, maples, white and red pines, hemlocks, spruce, hornbeam, ash, chestnut, walnut, beech, birch, and alders. Over 1200 acres of marketable tree species are managed under Chapter 61, the Forest Cutting Program. Two Town-owned parcels with untouched forests, Trout Brook Reservation and the Town Forest located at Harris and River Streets, have pleasant hiking trails and streams with typical riparian vegetation. Low-bush blueberries, mountain laurel and wild lily of the valley can be seen at higher elevations and mosses, ferns, and jewelweed abound in low-lying areas.

### Threats to Vegetated Areas

The Asian longhorned beetle (ALB) (anoplophora glabripennis), an insect native to China, Japan, Korea, and the Isle of Hainan, is a destructive pest of hardwood trees. It attacks many healthy hardwoods trees including maple, horse chestnut, birch, poplar, willow, and elm. In addition, nursery stock, logs, green lumber, firewood, stumps, roots, branches, and wood debris of half an inch or more in diameter are subject to infestation. The beetles lay eggs in the tree and feed on the tree, eventually killing the tree. A new generation of ALB is produced each year. If this pest moves into the hardwood forests of the United States, the nursery, maple syrup, and forest product industries would experience severe economic losses. Urban and forest ALB infestations will also result in environmental damage, aesthetic deterioration, and reductions in public enjoyment of recreational spaces.

An infestation of ALB has been identified in areas of Worcester, Holden, West Boylston, Boylston, Auburn and Shrewsbury, Worcester County, Massachusetts. DCR issued a quarantine on a 110 square miles area where ALB has been identified. DCR, USAD APHIS and the U.S. Forest Service are coordinating an effort to eradicate ALB from the state. Currently, the only effective method of ALB eradication is through removing and chipping or burning infected trees.

Five water bodies in Holden have been found to have populations of exotic weeds. They are Chaffin Pond, Dawson Pond, Eagle Lake, Stump Pond, and Unionville Pond. Exotic weeds often crowd out native vegetation because they have few if any natural predators to control their growth. They can expand to become a nuisance and impair water quality. Biannual drawdown has proven successful in controlling the Milfoil in Eagle Lake but has not been conducted since 2016. Currently, little else is being done to manage exotic weeds in the ponds. Weed watcher and boat ramp monitoring programs may be considered for implementation at problem locations. To minimize the spread of such weeds, residents and businesses should be encouraged to minimize the use of fertilizers, which contribute to weed growth. Similarly, efforts should be made to ensure that all septic systems are fully functional and that connections are made to the sewer system, where feasible.

## **Public Shade Trees**

The Town of Holden does not have a local bylaw related to trees; however, the town follows MA General Law, Chapter 87, one of the most important laws governing public shade trees. The law outlines the powers of the tree warden, procedures for removing shade trees, procedures for planting public trees and penalties for violating provisions of the law. MA General Law, Chapter 40, Section 15C augments Chapter 87 with additional requirements concerning the removal of trees on designated scenic roads. All trees within a town-owned public way are defined as "public shade trees".

Chapter 87 states that no person, may cut, trim, or remove any tree, greater than one and a half inches in diameter without a public hearing. Public notice of the hearing must be posted in two or more public places in town and in a newspaper of general circulation for the town in each of two successive weeks. No person shall cut or remove a public shade tree if at, or before the public hearing objection is made in writing by one or more persons, unless such cutting or removal is approved by the select board or by the town manager. Any person injured on their property by the trimming, cutting, removal, or retention of any such tree may recover the damages, if any, from the Town under Chapter 87.

The Town of Holden's tree warden works within the Holden Municipal Light Department's (HMLD) forestry department and is responsible for the care, control, protection, and maintenance of all public shade trees, except those within a state highway. No person may plant, trim, cut or remove a public shade tree without permission of the tree warden. Daily trimmings and removals are under the discretion of the tree warden and the forestry department based on safety. The forestry department trims and removes trees daily to keep up with safety demands of the town/public.

Should a resident or other entity request a tree to be removed, the tree warden may request that replacement saplings be planted in the vicinity of the removed tree. For example, if a 30-

inch DBH Oak tree is to be removed, the warden may request that 3-3-inch dbh trees be planted in the vicinity of the said removed oak.

The Town may recommend the use of Tree-Protection-Zone (TPZ's) guidelines when construction or heavy machinery has the potential to impact trees. Using the proper guidelines of a TPZ will improve the survival rate of the tree when that said construction is being completed. The zone is a buffer in distance around the tree meant to protect the critical root zone (CRZ). It prevents compaction of soils and suffocation of critical roots that allow the trees to breath. It also protects the tree from physical trunk/bark damage. The Holden Department of Public Works (DPW) is authorized to remove dead and/or hazardous tree from Town-owned properties (i.e., parks and cemeteries) and outside of a public way. The removal of public shade trees within a town-owned right-of-way is under the discretion of the tree warden and following the public hearing process.

Utilities may, or at the request of the tree warden must, file an annual vegetation management plan and/or hazard tree removal plan with the Town. The Town is currently looking into developing a 5-year trimming schedule for all linear town-owned electric utility easements with a priority ranking system.

The Town of Holden is compliant with State and Federal regulations that govern the management of the Asian Longhorn Beetle (ALB) and other invasive species. All individuals and commercial businesses (e.g., landscaping, construction companies, nurseries, tree removal services, firewood dealers) performing work in the "regulated area" are required to comply with certain provisions. Companies doing pruning or removals, or in any way handling wood from ALB host trees within the regulated area must have a valid compliance agreement. The tree warden is required to attend ALB compliance training and is trained in invasive species management as well. Regulatory Officers conduct surveillance within the ALB regulated area to enforce the quarantine, and fines may be assessed if entities do not comply with State and Federal regulations.

# **Agricultural Land**

The 2016 land use map identified 99 acres of cultivated land, 524 acres of pasture and 481 acres of grassland (a total of 1,105 acres or 5% of the Town's total area). Most of the remaining agricultural land is located in the northern section of Town—north of Main Street and River Street. There are also other small farm parcels scattered in other parts of Town.

Grassland birds, like eastern meadowlarks and bobolinks, may still use some hayfields, meadows, and pastures in Holden. In many Massachusetts Towns, once plentiful fields are now too small and scattered to attract all but a few passing examples of these once plentiful grassland specialists. Holden contains some remaining significant field habitats, however in order to maintain the habitat value of these areas, the existing grasslands and croplands must

be maintained without further loss or fragmentation. Many other bird species nest near these fields and use the fields as well as other habitats for hunting and feeding on seeds, insects, and small mammals. Many migrant songbirds, those that move between northern and southern latitudes with the seasons, can still be found feeding in farm fields in Holden and other nearby Towns during migration. Many hawks and owls, such as American kestrels and northern harriers, rely on grasslands for hunting small mammals, while other hawks and owls, such as red-tailed hawks and great horned owls, hunt in these fields as well as in the Town's forested areas. In addition to birds, voles, white-tailed deer, woodchucks, coyotes, and eastern cottontail rabbits and other mammals often use agricultural areas. Several snakes, such as the eastern hognose snake and the northern brown snake can also be found in fields and pastures.

# Rare Species and Unique Habitats

The state's BioMap Project identifies "core habitats" and "critical natural landscapes" for conserving biodiversity for future generations. The NHESP of the DFW has mapped these Core Habitats as the state's "hotspots" for biodiversity. These areas are identified as the most viable natural communities and habitats for rare plants and animals and the most critical sites for long-term preservation of rare species and unique ecosystems. The NHESP distinguishes Critical Natural Landscapes as intact landscapes that are better able to support disturbance regimes and ecological processes and a wide variety of habitats and species over long timeframes. The project identifies 10 Core Habitats and 5 Critical Natural Landscapes that fall partially or entirely within the boundaries of the Town of Holden. The NHESP mapping includes a total of approximately 3,361 acres of designated Core Habitat and 7,445 acres of Critical Natural Landscape in Holden. These Core Habitats and Critical Natural Landscapes are described below as categorized by the NHESP BioMap Project.

One such area is Poutwater Pond in the northern part of Holden. In 1998, the Poutwater Pond Nature Preserve was the first such preserve dedicated in Massachusetts due to the area's unique acidic bog mat and associated plant and animal communities. The Preserve is owned by the DCR and it contains a boardwalk allowing visitors access to this unusual natural feature.

The BioMap also notes the presence of rare or endangered species. Each rare species listed on the Massachusetts Endangered Species Act is categorized by the Department of Fisheries and Wildlife. Endangered species are native species that are in danger of extinction throughout all or part of their range, or are in danger of extirpation from Massachusetts, as documented by biological research. Threatened species are likely to become Endangered in the foreseeable future throughout all or a significant portion of their range. Species of Special concern are native species that have been documented by biological research to have suffered a decline that could threaten the species if allowed to continue unchecked or that occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become Threatened within Massachusetts. The Endangered, Threatened, Species of Special concern and other of interest to the NHESP that are found in the Town of Holden are shown in Table below.

Table 7. Endangered, Threatened, and Species of Special Concern in Holden, MA.

Taxonomic Group	Scientific Name	Common Name	MESA Status
Vascular Plant	Cyperus houghtonii	Houghton's Flatsedge	Endangered
Vascular Plant	Arceuthobium pusillum	Dwarf Mistletoe	Special concern
Dragonfly / Damselfly	Ophiogomphus aspersus	Brook Snaketail	Special concern
Reptile	Glyptemys insculpta	Wood Turtle	Special concern
Amphibians	Hemidactylium scutatum	Four-toed Salamander	Non-listed SWAP
Amphibians	Gyrinophilus porphyriticus	Spring Salamander	Non-listed SWAP
Amphibians	Ambystoma opacum	Marbled Salamander	Threatened

NHESP also maintains an unofficial list of plants that are of conservation interest or concern and natural communities that are ecologically important that are not regulated under any law. The status of natural communities reflects the documented acreage of each community type in the state. Critically imperiled communities have 5 or fewer documented sites or very few remaining acres in the state. Imperiled communities have 6-20 documented sites or few remaining acres in the state. Vulnerable communities typically have 20-100 documented sites or limited acreage across the state.

## **Core Habitat Summaries**

#### Core 1696

This 34-acre area is designated a Core Habitat because of the presence of Four-toed Salamanders. These salamanders live in forested habitats surrounding swamps, bogs, marshes, vernal pool, and other fish-free waters. This species was removed from the Massachusetts Endangered Species Act (MESA) list in 2006 but remains of concern to the NHESP.

#### Core 1724

This 76-acre area is similarly designated a Core Habitat because of the presence of ideal breeding habitat for Four-toed Salamanders.

#### Core 1765

This 31-acre area is considered a Core Habitat because of the presence of Spring Salamanders. Spring Salamander adults inhabit clean, cold, high-gradient brooks and headwater seeps in forest habitat. Their larvae are aquatic and spend the majority of their life buried in the streambed or under stones. Although this species is sensitive to degradation of its cold-water habitats, it is not currently listed on the MESA list.

#### Core 1783

This small (<1 acre area) features a Priority Natural Community: Black Gum Swamp. Black Gum Swamps are forested hummocky peatlands that occur in poorly drained basins. In these areas, Black gum is an abundant or dominant canopy and red maple grows primarily on the hummocks, resulting in a relatively open canopy. This small Black Gum Swamp is free of exotic invasive species and is part of a larger mosaic of wetland types.

#### Core 1861

This Core Habitat features Houghton's Flatsedge, a flatsedge that prefers dry soil conditions, unlike most flatsedges. In Massachusetts it's primarily found in dry, open, rocky summits, the exposed fine sand of a large esker with heavily eroded sand gullies or a broad gently sloping sandplain. This plant species is listed as endangered on the MESA list.

#### Core 1896

This Core Habitat is one of the least disturbed wetlands in the state and has intact buffers and experiences little fragmentation or other stressors associated with development. Wetlands in this Core Habitat are most likely to support critical wetland functions (such as natural hydrologic conditions, diverse plant and animal habitats etc.) and maintain them into the future.

#### Core 1935

This 75-acre Core Habitat also falls under the Wetland Core classification, similar to the previous Core. This area is among the largest 20% of Wetland Cores in this ecoregion.

#### Core 2021

This 2,962 acre Core Habitat contains forest, wetlands, aquatic areas and species that are of special conservation interest. This 1,701-acre Forest Core is the seventh largest in the ecoregion, is clustered with two other relatively large Forest Cores, and all three are relatively well protected, primarily as drinking water supply. Forest Cores are the best examples of large, intact forests that are least impacted by roads and development. Forest Cores support many bird species sensitive to the impacts of roads and development and help maintain ecological processes found only in unfragmented forest patches.

Wetland Cores are the least disturbed wetlands in the state within undeveloped landscapes—those with intact buffers and little fragmentation or other stressors associated with development. These wetlands are most likely to support critical wetland functions (i.e., natural hydrologic conditions, diverse plant and animal habitats, etc.) and to maintain these functions into the future.

Aquatic Cores are intact river corridors within which important physical and ecological processes of the river or stream occur. They delineate integrated and functional ecosystems for fish species and other aquatic Species of Conservation Concern.

This Core Habitat contains several species of conservation interest. It provides habitat for Brook Snaketails: dragonflies whose nymphs can be found in clear, sand-bottomed streams with intermittent rapids, often flowing through dense woodland. It also provides habitat for Spring Salamander adults that inhabit clean, cold, high-gradient brooks and headwater seeps in forest habitat, usually at elevation >100 m. Their larvae are entirely aquatic and largely nocturnal, spending daylight hours buried below the streambed or hidden under stones. It also provides habitat for Wood Turtle which prefer streams and rivers, preferably with long corridors of undeveloped, connected uplands. They also use fields and early successional habitat extending up to 500 meters on both sides of the waterways. Mowing and roads are the primary causes of mortality for these turtles and collection is also a conservation concern.

#### Core 2056

This 1,164-acre Core Habitat features Forest Core, Wetland Core, Vernal Pool Core, and a Species of Conservation Concern. Forest Cores are the best examples of large, intact forests that are least impacted by roads and development. Forest Cores support many bird species sensitive to the impacts of roads and development and help maintain ecological processes found only in unfragmented forest patches.

Wetland Cores are the least disturbed wetlands in the state within undeveloped landscapes—those with intact buffers and little fragmentation or other stressors associated with development. These wetlands are most likely to support critical wetland functions (i.e., natural hydrologic conditions, diverse plant and animal habitats, etc.) and are most likely to maintain these functions into the future.

Vernal pools are small, seasonal wetlands that provide important wildlife habitat, especially for amphibians and invertebrate animals that use them to breed. BioMap2 identifies the top 5 percent most interconnected clusters of Potential Vernal Pools in the state.

This area also provides habitat for adult and juvenile Marbled Salamanders that are found in upland forests during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during late summer or early fall to breed in dried portions of vernal pools, swamps, marshes, and other predominantly fish-free wetlands. Eggs are

deposited under logs, leaf-litter, or grass tussocks and hatch after being inundated by fall rains. Larvae metamorphose during late spring, whereupon they disperse into upland forest.

#### Core 2066

This 1,057-acre Core Habitat features Forest Core, Wetland Core, Aquatic Core, Priority Natural Communities, and Species of Conservation Concern. Forest Cores are the best examples of large, intact forests that are least impacted by roads and development. Forest Cores support many bird species sensitive to the impacts of roads and development and help maintain ecological processes found only in unfragmented forest patches.

Wetland Cores are the least disturbed wetlands in the state within undeveloped landscapes—those with intact buffers and little fragmentation or other stressors associated with development. These wetlands are most likely to support critical wetland functions (i.e., natural hydrologic conditions, diverse plant and animal habitats, etc.) and are most likely to maintain these functions into the future.

Aquatic Cores are intact river corridors within which important physical and ecological processes of the river or stream occur. They delineate integrated and functional ecosystems for fish species and other aquatic Species of Conservation Concern. This area also contains Level Bogs which are dwarf-shrub peatlands, generally with pronounced hummocks and hollows in sphagnum moss. These wetland communities are very acidic and nutrient-poor because the peat isolates them from nutrients in groundwater and streams. This Level Bog is in good condition and is well buffered by naturally forested upland.

This area also provides habitat for Dwarf Mistletoe, a member of the Christmas Mistletoe family. Dwarf Mistletoe is a very small fleshy shrub, usually no more than 0.8 inch tall, that parasitizes conifer trees. Four-toed Salamanders live in forested habitats surrounding swamps, bogs, marshes, vernal pools, and other fish-free waters are also found here.

Table 8. Core Habitats in Holden, MA of special concern.

	Core Habitat	Common Name	Scientific Name	Status
Core 1696	Vertebrates	Four-toed Salamander	Hemidactylium scutatum	Non-listed SWAP <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> In 2005 the Massachusetts Division of Fisheries and Wildlife completed a comprehensive State Wildlife Action Plan (SWAP) documenting the status of Massachusetts wildlife and providing recommendations to help guide wildlife conservation decision-making. SWAP includes all the wildlife species listed under the Massachusetts Endangered Species Act (MESA), as well as more than 80 species that need conservation attention but do not meet the requirements for inclusion under MESA. Note that plants are not included in SWAP.

Core 1724	Vertebrates	Four-toed Salamander	Hemidactylium scutatum	Non-listed SWAP
Core 1765	Vertebrates	Spring Salamander	Gyrinophilus porphyriticus	Non-listed SWAP
Core 1861	Priority & Exemplary Natural Communities	Black Gum Swamp		Imperiled
Core 1896	Wetland Core			
Core 1935	Wetland Core			
	Forest Core			
	Aquatic Core			
	Wetland Core			
Core 2021	Vertebrates	Brook Snaketail	Ophiogomphus aspersus	Special Concern
	Vertebrates	Spring Salamander	Gyrinophilus porphyriticus	Non-listed SWAP
	Vertebrates	Wood Turtle	Glyptemys insculpta	Special Concern
	Forest Core			
Core 2056	Wetland Core			
C016 2036	Vernal Pool Core			
	Vertebrates	Marbled Salamander	Ambystoma opacum	Threatened
	Forest Core			
Core 2066	Aquatic Core			
	Wetland Core			
	Priority & Exemplary Natural Communities	Level Bog		Critically imperiled
	Vascular Plants	Dwarf Mistletoe	Arceuthobium pusillum	Special Concern
	Vertebrates	Four-toed Salamander	Hemidactylium scutatum	Non-listed SWAP

## **Critical Natural Landscape Summaries**

#### **CNL 878**

This 1,473-acre Critical Natural Landscape is classified as a Landscape Block. Landscape Blocks, the primary component of Critical Natural Landscapes, are large areas of intact predominately natural vegetation, consisting of contiguous forests, wetlands, rivers, lakes, and ponds, as well as coastal habitats such as barrier beaches and salt marshes. Pastures and power-line rights-of-way, which are less intensively altered than most developed areas, were also included since they provide habitat and connectivity for many species. Collectively, these natural cover types total 3.6 million acres across the state. An Ecological Integrity assessment was used to identify the most intact and least fragmented areas.

These large Landscape Blocks are most likely to maintain dynamic ecological processes such as buffering, connectivity, natural disturbance, and hydrological regimes, all of which help to support wide-ranging wildlife species and many other elements of biodiversity. In order to identify critical Landscape Blocks in each ecoregion, different Ecological Integrity thresholds were used to select the largest intact landscape patches in each ecoregion while avoiding altered habitat as much as possible. This ecoregional representation accomplishes a key goal of BioMap2 to protect the ecological stages that support a broad suite of biodiversity in the context of climate change. Blocks were defined by major roads, and minimum size thresholds differed among ecoregions to ensure that BioMap2 includes the best of the best in each ecoregion.

#### **CNL 889**

This small, 1-acre area serves at as wetland buffer. A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

#### **CNL 905**

This 1,829-acre Critical Natural Landscape is classified as a Landscape Block. Similar to CNL 878, it is designated because it consists of a large area of intact and predominately natural vegetation.

#### **CNL 1000**

A 6,794-acre Critical Natural Landscape featuring Aquatic Core Buffer, Wetland Core Buffer and Landscape Block. A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

This CNL is also classified as a Landscape Block. These large Landscape Blocks are most likely to maintain dynamic ecological processes such as buffering, connectivity, natural disturbance, and hydrological regimes, all of which help to support wide-ranging wildlife species and many other elements of biodiversity. This mostly forested 5,943-acre Landscape Block is the eighth largest of 62 Blocks in the ecoregion.

#### CNL 1079

A 10,954-acre Critical Natural Landscape featuring Aquatic Core Buffer, Wetland Core Buffer and Landscape Block. A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

Landscape Blocks are identified because they are the largest intact landscape patches in each ecoregion and support a broad suite of biodiversity.

Table 9. Critical Natural Landscapes in Holden, MA of special conc	Table 9.	Critical Natura	Landscapes in Holden.	MA of special concer
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Critical Natural Communities		
CNL 878	Landscape Block	
CNL 889	Wetland Core Buffer	
CNL 905	Landscape Block	
	Aquatic Core Buffer	
CNL 1000	Landscape Block	
	Wetland Core Buffer	

	Aquatic Core Buffer
CNL 1079	Landscape Block
	Wetland Core Buffer

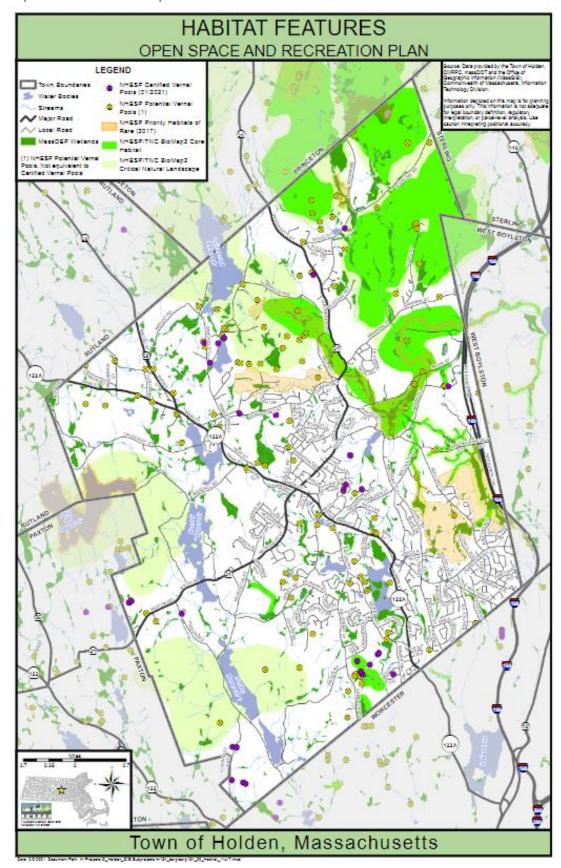
## Priority Wildlife Habitats and Estimated Habitats Summary

Priority Wildlife Habitats and Estimated Habitats of Rare Wetlands Wildlife as mapped by the NHESP receive an extra degree of protection from the Massachusetts Endangered Species Act (MESA), administered by NHESP and the Massachusetts Wetlands Protection Act, administered by DEP and the Holden Conservation Commission. It is likely that there are other important wildlife habitats and many more vernal pools in Holden.

These wildlife habitats are located around Pine Hill Reservoir, around Poutwater Pond and in the surrounding Poutwater Pond Nature Preserve, along the brook feeding Dawson's Pond, and along Anesbumskit Brook and the Quinapoxet River and its tributaries. They also encompass the wetland area west of Mason Road, near the intersection of Mason Road and Sterling Road, the wetland area around Mayo Elementary school and along a brook feedings Chaffins Ponds, and the wetland & marsh area between Bullard Street, Malden Street, Interstate 190 and Wyoming Drive. Project review procedures for the town include review by the Conservation Commission to ensure that these habitats are preserved.

According to the NHESP, Holden has 27 certified vernal pools and 118 potential vernal pools. Vernal pool habitat is extremely important to a variety of wildlife species including some amphibians that breed exclusively in vernal pools, and other organisms such as fairy shrimp, which spend their entire life cycles confined to vernal pool habitat. Many additional wildlife species utilize vernal pools for breeding, feeding and other important functions. Certified vernal pools are protected if they fall under the jurisdiction of the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00). However, the certification of a pool only establishes that it functions biologically as a vernal pool. Certification does not determine that the pool is within a resource area protected by the Wetlands Protection Act. Certified vernal pools are also afforded protection under the state Water Quality Certification regulations (401 Program), the state Title 5 regulations, and the Forest Cutting Practices Act regulations. The Town of Holden updated its Wetland Protection Bylaw in 2011 to identify uncertified vernal pools as a wetland resource.

Map 9. Habitat Features Map



# E. FISHERIES AND WILDLIFE

Holden's wildlife community is typical of central Massachusetts towns. Species are limited by habitat availability. The mix or forest, lakes, ponds, streams, rivers, and wetlands found in Holden provide a diversity of habitats for fish and wildlife. While substantial portions of the town have been developed and are no longer suitable for larger game species, bear and deer are still found in wooded areas and grasslands. Hunting for small game, such as ducks, squirrel, and grouse has decreased in recent years.

A diversity of wildlife is an indicator of the health of the environment and is a source of joy for children and grownups alike. As the forests of New England continue to rebound after the abandonment of many farms in the 1800s and subsequent years, some species of wildlife have begun to move back into Holden and other areas of central Massachusetts. These include beaver, coyote, moose, turkey, bear, and fisher as well as others. The resurgence of these species is generally considered to be a positive occurrence, but there may be negative consequences as well. Beaver dams can create localized flooding, and small house pets can be vulnerable to the increasing population of fisher and coyote. The following describes the Town's major wildlife habitats, agricultural land, open land, forests, and wetlands, and some of the more common wildlife likely to be found in them.

# **Open Land**

Power line corridors and unused open land, like agricultural fields that are no longer being cultivated, are also areas used by many of the same species of wildlife that use agricultural land and some species that specialize in using these areas. There are just over 230 acres of this type of habitat in Holden (1.6% of the total area). Power line and other utility rights-of-way are also often used as movement corridors for wildlife, providing a means of getting from one habitat to another. The birds, mammals, and reptiles that use these open areas are likely to be the same as those that use agricultural areas in the Town.

## **Forest Land**

Holden has an abundance of forestland, but as large lots are developed along the Town's roadways, the effect of suburban development has begun to mask the visual impact of such natural wealth. The habitat map shows 15,489 acres of forest in Holden (67% of the Town's total area, a 1% loss from 2005), including primarily Central Hardwoods-Hemlock-White Pine association and relatively small areas of the Swamp Hardwood association. The Central Hardwood Forest type is located on generally drier outwash soils and tills. The most common trees are red oak (with mixtures of other oaks) and hemlock as well as red maple, aspen, hickories, and gray birch. White pine is common on more sandy soils. Common forest shrubs and herbs include lowbush blueberries, wintergreen, clubmosses, and witch hazel. The Central Hardwood Forest type is found in all parts of the Town while the Swamp Hardwood Forest type

is concentrated along streams or around ponds. The Central Hardwood Forest habitat type is likely to be the most threatened because it is often generally suitable for development.

Some of the common animals found in the Central Hardwood Forest include spotted salamander, redback salamander, wood frog, American toad, eastern milk snake, and eastern garter snake. Common birds include red-tailed hawk, Cooper's hawk, mourning dove, downy woodpecker, great-horned owl, eastern wood pewee, blue jay, American crow, white-breasted nuthatch, brown creeper, scarlet tanager, ovenbird, yellow-rumped warbler, Baltimore oriole, broad winged hawk, ruffed grouse, pileated woodpecker, red-eyed vireo, black-capped chickadee, wood thrush, indigo bunting, and wild turkey. Several species, such as the hawks, are most often found at forest edges, where woodlands abut more open areas such as agricultural fields. A diversity and juxtaposition of habitat types is not only aesthetically pleasing, but often an enhancement to wildlife as well. Common mammals include Virginia opossum, eastern chipmunk, woodchuck, gray squirrel, red squirrel, white-footed mouse, red fox, eastern coyote, raccoon, river otter, white-tailed deer, and striped skunk. All of these species occupy Holden's forests.

Swamp Hardwoods, found in the scattered wetland areas of Town and along streams, are so dominated by red maples that they are often referred to as Red Maple Swamps. Other less common trees include American ash, cedars, and black gum. Wetland understory shrubs are common, including alder, viburnums, blueberries, and others. Herbs are abundant and include sedges, ferns, false hellebore, and skunk cabbage. These woodlands are an important component of the Town's remaining forested lands and wetland laws generally protect them.

Some of the common animals found in the Swamp Hardwood association and not in the Central Hardwood Forest include northern spring peeper, gray tree frog, bullfrog, common snapping turtle, painted turtle, northern water snake, and northern ringneck snake. Birds common to this habitat and not so likely encountered in Central Hardwood Forest include red-shouldered hawk, swamp sparrow, barred owl, cedar waxwing, yellow warbler, and common grackle. Many of the same mammals found in the Central Hardwood association are also likely to be found in Red Maple swamps.

# Forest Fragmentation

Many ecologists agree that one of the biggest threats to natural communities and biodiversity in Massachusetts and much of the rest of New England is the fragmentation of large expanses of uninterrupted forest habitats. Many wildlife species, like these, depend on the interior of forests (areas far from an edge) for a significant portion of their life cycle and many biologists agree that the loss of large uninterrupted tracts of forest is contributing to the decline of many species of birds and mammals.

As a result, the remaining uninterrupted forests in Holden and surrounding Towns are particularly valuable for a broad diversity of wildlife. Three relatively large forest areas remain.

One is along the Town's western boundary and includes many protected watershed lands. Another runs along the northern Town boundary from North Main Street to Manning Street and includes many state-owned watershed lands. The third runs along the eastern Town boundary from Manning Street almost to Shrewsbury Street. This area also includes several state-owned watershed lands. These large uninterrupted forest areas are important habitat areas for wildlife.

## Non-forested Wetlands

The vegetation map identifies 429 acres of non-forested wetlands in Holden (2% of the total area) and 730 acres of water (3% of the total area). The majority of the Town's non-forested wetlands are found upstream of Chaffin Pond and around Stump Pond and Eagle Lake. These rich wildlife resources include bogs, meadows, shallow marshes, deep marshes, shrub swamps, and ponds. Other non-forested wetlands are located at scattered locations throughout the Town.

Level Bogs are dwarf shrub peatlands, generally with pronounced hummock and hollow formations. These wetland peatlands are the Town's most acidic and nutrient-poor, because they receive little overland water input, and are not connected to the water table. The Poutwater Pond bog in Holden is a level bog that provides habitat for rare plants such as dwarf mistletoe.

Wet meadows are characterized by sedges and cattails, surface water depths to 6 inches in winter and early spring, and exposed but saturated soil surface in summer, and typically provide habitat for the following wildlife species: Northern leopard frog, big brown bat, star-nosed mole, and short-tailed shrew.

Shallow Marshes are characterized by persistent emergent vegetation such as cattails and water depths to 1.5 feet, and provide preferred habitat for the following wildlife species: Northern spring peeper, painted turtle, and northern leopard frog. Common birds may include great blue heron, green heron, Wilson's snipe, Virginia rail, mallard duck, tree swallow, red-winged blackbird, and American goldfinch. Common mammals may include Virginia opossum, little brown bat, muskrat, mink, and raccoon.

Emergent vegetation and floating-leafed plants such as water lilies (Nymphaea and Nuphar), and water depths to 6 feet characterize Deep Marshes. They typically provide preferred habitats for the following species: Painted turtle, spotted turtle, and red-spotted newt. Common birds may include wood ducks as well as migrating pied-billed grebe, and American coot. Common mammals include the same species found in Shallow Marshes.

Woody shrubs such as buttonbush, alder, silky dogwood, and red maple, and saplings characterize Shrub Swamps. They typically provide preferred habitat for the following species:

American woodcock, yellow warbler, common yellowthroat, common grackle, song sparrow, swamp sparrow, and American goldfinch. Common mammals include Virginia opossum, little brown bat, eastern cottontail, and raccoon.

Ponds are small bodies of water that are characterized by emergent vegetation such as cattails or floating-leafed plants, or both. Vernal pools are small seasonal ponds that often are not connected to streams or other water bodies. Thus, they depend on groundwater, snowmelt and rainwater and usually become dry by late summer. 27 Certified Vernal Pools have been identified in the Town of Holden. Vernal pools are critical habitats for some salamander species, wood frogs, and a wide variety of other wildlife. Some species of salamanders and wood frogs migrate from surrounding forested uplands to these pools in the spring to breed. Without these vernal pools, we would lose these animals. Many more potential vernal pools may exist but have not been documented. Potential vernal pools are small topographic depressions or small pockets of suspected standing water identified from topographic maps and aerial photographs by NHESP as possible candidates for being vernal pools. A vernal pool is certified by NHESP following submission of documentation that a species of animals that require vernal pool habitat are actually present. Ponds and vernal pools also provide preferred habitat for the following wildlife species: bullfrog, pickerel frog, eastern painted turtles, little brown bat, big brown bat, mink, and beaver.

## **Fisheries**

Holden's many ponds provide important recreational opportunities and are often frequented by fisherman and other small boat users. Notable ponds in Holden include Chaffin's, Maple Spring, Dawson, Unionville, Stump, Cournoyer and Eagle Lake. These warm-water ponds support large-mouth bass, hornpout, pickerel, blue gills and white perch.

The Town of Holden supports an important Cold Water Fishery Resource (CFR). A CFR is a stream, river, or tributary in which reproducing coldwater fish are found. It is a waterbody (stream, river, or tributary thereto) used by reproducing coldwater fish to meet one or more of their life history requirements. CFRs are particularly sensitive habitats where as changes in land and water use can reduce the ability of these waters to support trout and other kinds of coldwater fish. Identification of CFRs are based on fish samples collected annually by Mass Wildlife staff biologists and technicians.

Coldwater fish species include Rainbow Trout, Rainbow Smelt, Landlocked Salmon, Brown Trout, Brook Trout and Lake Trout. Holden's rivers and streams supporting coldwater fish species include the Quinapoxet River, Asnebumskit Brook and Trout Brook. Mass Wildlife stocks these waters in the Spring of every year. In addition, native trout populations have been reported in numerous Town streams.

## **Living Waters Project**

With the exception of an extremely small area at the northern tip of Holden, there are no Living Waters Critical Supporting Watersheds. The goal of the Living Waters Project (formerly the Aquatic Biodiversity Project) is to promote the strategic protection of freshwater biodiversity in Massachusetts. Natural Heritage tracks 58 species of rare fish, aquatic vascular plants, freshwater mussels, crayfish, snails, and other aquatic invertebrates. Because changes in water flow and degradations in water quality threaten these and other freshwater species, Natural Heritage developed the Living Waters conservation plan to identify the State's most critical sites for freshwater biodiversity in the Commonwealth. These sites, referred to as Core Habitats, represent the rivers, streams, lakes, and ponds where we should focus proactive conservation activities in order to protect freshwater habitats. The Living Waters project was funded from 2001-2003 with bond funds.

# **Riparian Corridors**

Two hundred-meter natural riparian corridors along waterways provide avenues of movement and habitat for some wildlife species, control erosion by absorbing and slowing stormwater runoff, filter sedimentation from runoff before it enters streams, and provide a storage area for flood waters.

# F. SCENIC RESOURCES AND UNIQUE ENVIRONMENTS

# **Historic Sites**

Holden has the visual character of a typical New England undulating countryside, with terrain ranging from steep hillsides to gently rolling land. Twelve hills with rounded peaks often serve as neighborhood references to the local populace. The unique clusters of mostly 18th and 19th century residences, churches and Town government structures in the historic Town Center and Boyden Road areas, as well as the many attractive newer residences and commercial buildings combine to create in Holden's pastoral setting a sense of tradition, tranquility and stable growth.

The Town of Holden covers some 35.75 square miles of area. Holden's water bodies are a dominant physical feature of the landscape. Its large wetland areas are vital in terms of reservoir replenishment, flood control and as a natural wildlife environment.

Currently there are a total of 27 recorded Prehistoric Native American sites within, or in close proximity to, the Wachusett Watershed. Within the greater Nashua River Basin, of which Wachusett is a part, at least another 35 sites have been recorded. This quantity is known to be low as it represents only those recorded at the Massachusetts Historical Commission and does not take into account the many more that are known to collectors but are not recorded.

Combined, the recorded and unrecorded sites, clearly attest to the viability of this region's habitat for human habitation for thousands of years and establish the archaeological sensitivity of the region.

According to Wachusett Reservoir Watershed - DCR/DWM Land Management Plan 2001-2010, within Holden, 11 areas are believed to be Prehistoric Native American sites. These sites are not mapped because of possible threats to site integrity:

Table 10. Unmapped Prehistoric Native American Sites.

1. 19-WR-21	Quinapoxet
	Pond
2. 19-WR-29	Eagle Lake (E)
3. 19-WR-30	Eagle Lake
	(SE)
4. 19-WR-31	Eagle Lake
	(SW)
5. 19-WR-33	Maple Spring
	Pond (E)
6. 19-WR-34	Maple Spring
	Pond (W)
7. 19-WR-181	Chaffin Pond
8. 19-WR-182	Chaffin Pond
9. 19-WR-183	Chaffin Pond
10. 19-WR-	Rockshelter
184	
11. 19-WR-	Quabbin
253	Aqueduct

Significantly, there may be as many as 6 historic period Native American burials recorded within the Town of Holden. This is an unusually high number for a single community. These sites are also not mapped because of possible threats to site integrity.

A mile and a half from the start of the Mass Central Rail Trail in Oakdale Massachusetts, snug between the Quinapoxet River and the section of the Mass Central Rail Trail now being built in the Springdale area of Holden, are the remaining stone foundations of The Springdale Mill. Once a thriving woolen mill located at the end of Springdale Road, the site also includes the remains of a mill village. The Mill has a self-guided tour that visitors can follow with signs that explain the history and use of the mill.

## Reservoirs

Quinapoxet Reservoir provides the headwaters of the Quinapoxet River, the principal waterway in Holden. Asnebumskit Brook, Muschopauge Brook, Warren Tannery Brook, Trout Brook, and a number of unnamed perennial streams also feed the Quinapoxet, as does Unionville and Chaffins Pond. Quinapoxet River winds through Holden and eventually flows into the Wachusett Reservoir. The river and its tributaries provide a protected greenbelt for passive enjoyment.

Almost all of Holden is drained by streams entering public water supply reservoirs. Approximately two- thirds of the Town lies in the Nashua River Basin and the headwaters of the Blackstone River accept drainage from the southern portions of Town. Part of Worcester's water supply also is served by two drainage sub-basins within the Nashua River Basin - the Kendall and Quinapoxet Reservoir areas. The reservoir system that serves Worcester provides scenic water views along winding roads. Stone House Hill, located along Holden Reservoirs 1 and 2, reportedly contains Indian relics and at one time an occasional rattlesnake. These impressive rock faces add splendor to the magnificent view as one travels along the opposite shore of the waters at their base.

## **Preserves and Conservation Land**

Holden contains over 10,321 acres of permanently protected open space and recreation lands and an additional 110 acres of open space with limited protection and 150 acres that are unprotected. Of the 10,728 acres of open space in Holden, 39.99% is owned by the State of Massachusettes and 9.74% by the City of Worcester, while private land owners own 10% and land trusts own 8.53%.

Trout Brook Reservation, White Oak Land Conservation Society, Mass Wildlife and DCR lands, adjacent to and including Poutwater Pond Nature Preserve, form a body of more than 1,500 acres of scenic open space interconnected by trails. In the Trust for Public Land's (TPL's) first project with the Worcester DPW, the watershed of the Tatnuck Brook (75 acres), which supplies water to the Holden #1 Reservoir, has been substantially protected with the acquisition of a Watershed Preservation Restriction. The easement is managed by the City's Department of Public Works (DPW), which also funded the acquisition.

Holbrook Forest is a 59-acre parcel managed by the White Oak Land Conservation Society (WOLCS) with trailhead parking on Fisher Road in Holden. The trails interconnect with those of Camp Kinnywood and extend to Barrows Road in Worcester. In 2019, the Town was awarded funds from the Land and Conservation Fund (LWCF) for the purchase of an additional 23-acres of the Holbrook Property with frontage on Salisbury Street. This additional land acquisition created a 400-acre greenway corridor between the City of Worcester and Holden and provided a public access point on Salisbury Street.

In TPL's fourth project with the City of Worcester Department of Public Works, 75 acres of beautiful, wooded land with more than one mile of frontage on Scott Brook were permanently protected through the acquisition of a Watershed Preservation Restriction. Protection of this property will ensure continued high quality drinking water to 200,000 residents of Worcester and surrounding towns, will protect Holden's rural character, and will continue Worcester's long tradition of proactive watershed management. Funding was provided by a Massachusetts Drinking Water Supply Protection Grant and City of Worcester DPW funds.

TPL's Massachusetts Land and Water Program completed the protection of the 114-acre Blair property, concluding the Muschopauge Brook project on behalf of the City of Worcester. The Blair and the Namiotka property together comprise 209 acres of forested wetland and upland that safeguard nearly two miles of frontage on the Muschopauge Brook, a major tributary to the Quinapoxet Reservoir. The Quinapoxet is a high-quality public water source that provides 200,000 people with clean, safe drinking water in the City of Worcester and surrounding communities. Conservation of this critical watershed protection land continues Worcester's land protection heritage, which stretches back to the mid 1800's. Funding for this project was provided by the Federal/ USDA Forest Legacy Program and Worcester's DPW.

## **Arteries and Linear Features**

The Mass Central Rail Trail, which follows the bed of the abandoned 104-mile Northampton to Boston Massachusetts Central Railroad, is being developed by Wachusett Greenways in cooperation with town governments and state and private agencies. Approximately 47 miles of the Rail Trail are now open and the route travels approximately 8 miles through Holden connecting a section already open in West Boylston to the northeast with a Rutland link to the northwest. One trail section starts in the Oakdale part of West Boylston and continues along the Quinapoxet River for 3.4 miles, ending in Holden. Another 3.5-mile trail connects Trout Brook Park conservation land with Sterling Road.

The Asnebumskit trail is located off of South Road, marked with a blue White Oak sign. The trail connects Holden with additional open space in the City of Worcester and the Town of Paxton.

The main traffic artery through Holden, Route 122A (Main Street), follows the approximate location of the Sixth Incorporated Turnpike of Massachusetts, built in 1799 and one of seventeen turnpikes chartered by the State and constructed by private companies between 1799 and 1830. According to the Massachusetts Historical Commission, it also had been an important trail during the Quinsigamond Plantation Period of 1500 - 1675.

The Quabbin Aqueduct which supplies water for the Metropolitan District of Boston passes through Holden for a distance of about 4.5 miles in nearly an east-west direction through what was formerly Quinapoxet Village. This aqueduct is a tunnel 24.6 miles in length. It is constructed

entirely in rock ranging in depth below the ground surface from about 200 feet to 800 feet. It takes water from the Ware River at Coldbrook and from Quabbin Reservoir at a point about one mile south of the former Greenwich Village. It is lined with concrete, forming a waterway 12 feet 9 inches high and 11 feet wide.

The portion of the tunnel within the Town of Holden was constructed during the years of 1927 to 1931 inclusive, and was first put into service in March 1931, when water from the Ware River was first diverted through the tunnel from Shaft 8 at Coldbrook to Wachusett Reservoir at Oakdale. During the construction of the shafts and tunnel, an average of about 150 men was employed within the Holden's town limits. A camp for workers was maintained at Shaft 2. During the construction of the tunnel a detailed study of the geological structure was made, and specimens of rock were taken throughout the length of the tunnel at intervals of about 50 feet. These were preserved and are available for public inspection at the Intake building at Coldbrook. This tunnel passed through a dike of trap rock in Holden about 1/2 mile east of the Rutland town line. This is part of the same formation afterwards developed and now operated as a quarry by the Holden Trap Rock Company, at Jefferson.

Two of the 13 shafts in this tunnel are in Holden. Shaft 2 adjacent to the Quinapoxet River, about one mile east of the West Boylston town line, is about 315 feet deep and Shaft 3 in North Woods district, and also adjacent to the Quinapoxet River, is about 350 feet deep. The tunnel crosses under Manning Street near Shaft 2 where it is 330 feet below the street; under Wachusett Street at the former Quinapoxet Village, 310 feet below the street; 360 feet below Princeton Street; 400 feet below Whitney Street; 430 feet below Bryant Road and about 470 feet below Broad Street which it crosses near Shaft 4 just west of the Holden line in Rutland. The DCR Sewer Trunk line, built in 1935 by legislative act and expanded in 1981, is an evident feature through much of Holden. The 35-foot-wide easement for use for sewer access is held by DCR and maintained by the Massachusetts Water Resource Administration (MWRA).

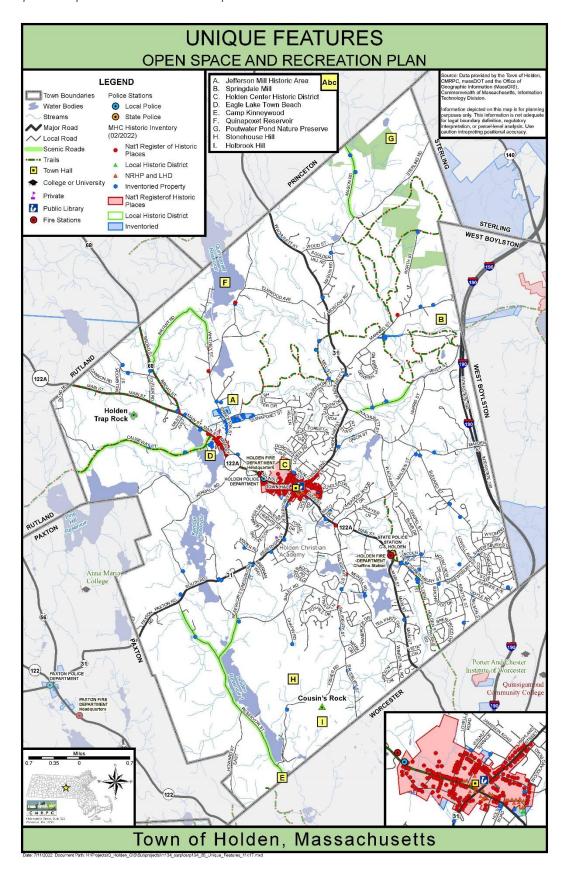
# **Unusual Geologic Features**

A notable geologic feature found in Holbrook Forest is a glacial erratic named Cousin's Rock. It is of a material called Pegmatite; chemically the main constituents are aluminum silicate and silica, the same as granite, but formed in a late stage of crystallization in which a gas enriched very fluid magma allows ions to move freely and form unusually large crystals, seen in the picture to the to the right.



Holden Trap Rock is an igneous rock quarry located in the northeaster part of Town. The Holden Trap Rock Company was originally incorporated in 1938. Currently, the quarry is a division of the Massachusetts Broken Stone Company.

The Poutwater Pond Nature Preserve area (also known as "The Quag"), located in the very northern tip of Holden, is a natural bog. The pond environs represent the Commonwealth's first nature preserve and are designated as a national natural landmark by the Department of the Interior. This fragile habitat, which consists of living and decaying moss and other acidic vegetable matter floating on water, is located in a remote 28-acre site and is accessible to the public through DCR and Mass Wildlife lands. Metallic grids placed over the surrounding bog allow the public to cross through the wetlands and wildlife habitat to the serene and picturesque pond near its center without destroying the underlying vegetation.



#### G. ENVIRONMENTAL CONCERNS

Environmental challenges have been evaluated in terms of how they influence open space and recreation planning in Holden, including hazardous waste sites, impaired water bodies, landfills, erosion, chronic flooding, sedimentation, new development, ground and surface water pollution and forestry.

#### Oil and Hazardous Waste Releases

The Town of Holden has 99 Reportable Releases listed with the Massachusetts DEP. These sites include sites where oil, hazardous material or both have been released into the environment. The sites date back to 1993 and include such residential properties, schools, churches, gas stations, bottling companies, state police facilities, among others. Some sites have been remediated to DEP satisfaction while at other sites clean up or monitoring are ongoing.

There are 39 known underground storage tank locations in Holden. Of these 39, most have been removed or closed. Only 9 remain active.

Table 11. MA DEP Reportable Releases as of February 2021.

RTN	Release Address	Site Name Location Aid	Reporting Category	Date	Compliance Status*	Chemical Type
2-0021383	752 MAIN STREET	HHC REALTY, LLC	120 DY	10/22/2020	UNCLASSIFIED	
2-0021264	6 WYOMING DR	RESIDENCE	TWO HR	06/23/2020	UNCLASSIFIED	
2-0020963	NEWELL ROAD	DIESEL FUEL RELEASE	TWO HR	07/19/2019	PSNC	
2-0020773	36 HARRINGTON DR	RESIDENCE	TWO HR	01/07/2019	TIER 2	
2-0020729	MAIN STREET AND KENDALL STREET	HYDRAULIC OIL RELEASE	TWO HR	11/29/2018	PSNC	
2-0020695	1175 MAIN ST	MOBIL STATION	72 HR	10/31/2018	PSNC	
2-0020631	191 PRINCETON ST	#2 FUEL OIL RELEASE	TWO HR	08/22/2018	TIER1D	
2-0020478	1395 REAR WACHUSETT STREET	R.J. PAQUETTE CONCRETE	120 DY	03/19/2018	TMPS	
2-0020476	54 MAYFLOWER CIR	RESIDENTIAL AST RELEASE	TWO HR	03/10/2018	PSNC	
2-0020014	385 ELMWOOD AVE	RIGHT OF WAY	TWO HR	10/12/2016	PSNC	

2-0019735	I 190 NORTH AT	ROADWAY RELEASE	TWO HR	12/18/2015	PSNC	
	MM 5		-			
2-0019694	246 BOYLE STREET	246 BOYLE STREET	TWO HR	11/11/2015	PSNC	
2-0019342	160 RESERVIOR STREET	BIG Y FOODS	TWO HR	10/24/2014	PSNC	Oil
2-0019237	SEASONS DRIVE	RELEASE TO ROADWAY	TWO HR	06/24/2014	PSNC	Oil
2-0019230	90 INDUSTRIAL DR	PEPSICO	TWO HR	06/17/2014	PSNC	Oil
2-0019182	1107 MAIN STREET	1107 MAIN STREET	TWO HR	04/28/2014	PSNC	Oil
2-0019101	1146-1148 MAIN STREET	HORACE'S BARBER SHOP	TWO HR	01/27/2014	TIER1D	Oil
2-0018888	1672 MAIN ST	ROADWAY SPILL	TWO HR	05/13/2013	RAO	Oil
2-0018776	42 WALNUT TERRACE	PRIVATE RESIDENCE	120 DY	12/18/2012	RAO	Hazardous Material
2-0018245	30 SHREWSBURY ST	ALDEN RESEARCH LABORATORY	TWO HR	06/22/2011	RAO	
2-0017889	45 SOMERSET LN	NO LOCATION AID	120 DY	05/28/2010	RAO	Oil and Hazardous Material
2-0017825	WOODRIDGE RD	HYDRAULIC LINE RUPTURE	TWO HR	03/24/2010	RAO	Oil
2-0017522	525 MAIN ST	FORMER MANDEL PROPERTY	72 HR	05/19/2009	RTN CLOSED	Oil
2-0017412	359 SOUTH MAIN ST	HILLSIDE AUTO & TRUCK REPAIR	72 HR	02/06/2009	RTN CLOSED	Oil
2-0016955	18 ELMWOOD AVE	ELMWOOD REALTY TRUST	120 DY	01/31/2008	RTN CLOSED	Oil
2-0016925	612 MAIN ST	STATE POLICE BARRACKS	120 DY	12/20/2007	RTN CLOSED	
2-0016714	47 PHILLIPS RD	FORMER RICE SCHOOL	72 HR	06/01/2007	RAO	Oil
2-0016633	15 PUTNAM LN	VACANT RESIDENCE	TWO HR	03/25/2007	RAO	Oil
2-0016532	1745 MAIN ST	JEFFERSON SCHOOL	TWO HR	01/08/2007	RAO	Oil

2-0016500	156 PRINCETON ST	ECC CORPORATION	TWO HR	01/26/2016	TIER1D	Hazardous Material
2-0016368	525 MAIN ST	MASS STICKERS PLUS INC	120 DY	08/22/2006	DPS	Oil
2-0016095	1401 MAIN ST	WACHUSETT REGIONAL HIGH SCHOOL	120 DY	01/27/2006	RAO	
2-0016016	82 BIRCHWOOD DR	RICHARDSON RESIDENTIAL RELEASE	120 DY	11/30/2005	RAO	Oil and Hazardous Material
2-0015640	176 RESERVOIR ST	AGAR SUPPLY CO	TWO HR	03/15/2005	RAO	Oil
2-0015578	752 MAIN ST	PETRO HEAT & POWER CORP	TWO HR	01/26/2005	RAO	Oil
2-0015529	110 INDUSTRIAL DR	INNER TITE CORP	120 DY	12/16/2004	RAO	Oil and Hazardous Material
2-0015412	1401 MAIN ST	PYTKO CONSTRUCTION CORPORATION	TWO HR	09/28/2004	PSNC	Oil
2-0015264	770 MAIN ST	HESS STATION 21320	72 HR	05/24/2004	RAO	Hazardous Material
2-0015148	18 INDUSTRIAL DR	REED RICO INC - SOUTH EAST LANDFILL AREA	72 HR	03/05/2004	RTN CLOSED	
2-0015106	85 HOLDEN INDUSTRIAL DR	WASTE MANAGEMENT HYDRAULIC RELEASE	TWO HR	01/30/2004	RAO	
2-0015014	PRINCETON AND HIGH ST	CENTRAL MASS DISPOSAL	TWO HR	11/20/2003	RAO	
2-0015006	90 INDUSTRIAL DR	PEPSI-COLA BOTTLING CO	120 DY	11/14/2003	RTN CLOSED	Oil and Hazardous Material
2-0014991	RTE 190 SOUTH MM 7	DSI TRANSPORTS ROADWAY RELEASE	TWO HR	11/06/2003	RAO	Hazardous Material
2-0014740	90 INDUSTRIAL DR	PEPSICO OF WORCESTER	TWO HR	04/22/2003	RAO	Oil

2-0014567	SOUTH ELMWOOD AVE	DURANT REALTY TRUST	72 HR	12/06/2002	RTN CLOSED	Hazardous Material
2-0014314	90 INDUSTRIAL DR	SOUTH SIDE OF BLDING	120 DY	05/17/2002	RTN CLOSED	Oil and Hazardous Material
2-0014253	525 MAIN ST	FORMER MANDEL PROPERTY	120 DY	04/01/2002	STMRET	Oil and Hazardous Material
2-0014252	359 MAIN ST	HILLSIDE AUTO	120 DY	04/01/2002	TIER 2	Oil and Hazardous Material
2-0014153	60 SALISBURY ST	CENTRAL MASS DISPOSAL	TWO HR	01/08/2002	RAO	Oil
2-0014131	612 MAIN ST	STATE POLICE BARRACKS	72 HR	12/19/2001	RTN CLOSED	Oil
2-0014035	90 INDUSTRIAL DR	PEPSI COLA BOTTLING CO OF WORCESTER	72 HR	10/15/2001	RTN CLOSED	
2-0013990	28 ORCHARD RD	RESIDENCE	72 HR	09/14/2001	RAO	Oil
2-0013961	170 MAIN ST	BELL PROPERTY	TWO HR	08/27/2001	RAO	
2-0013843	90 INDUSTRIAL DR	PEPSI COLA BOTTLING CO OF WORCESTER INC	72 HR	06/08/2001	RAO	Oil
2-0013791	1175 MAIN ST	MOBIL SERVICE STATION 01-EN3 11849	72 HR	04/26/2001	RTN CLOSED	Oil
2-0013769	450 MAIN ST	JOSEPH MUNER	72 HR	04/06/2001	RAO	Oil
2-0013693	189 HOLDEN	BOTTCHER RESIDENCE	120 DY	02/14/2001	RAO	Hazardous Material
2-0013669	90 INDUSTRIAL DR	PEPSI COLA BOTTLING CO OF WORCESTER INC	72 HR	01/29/2001	RAO	Oil
2-0013667	27 SHREWSBURY ST	DANIELS TRANSPORTATION	TWO HR	01/28/2001	RAO	Oil
2-0013658	18 INDUSTRIAL DR	REED RICO	120 DY	10/13/2000	RAO	Oil

2-0013528	70 INDUSTRIAL	FOSTER ASSOCIATES	120 DY	10/13/2000	DPS	Oil
2-0013283	944 MAIN ST	SUNNYSIDE MOTORS	120 DY	05/10/2000	URAM	Oil
2-0013022	15 ELMWOOD AVE	DURANT REALTY TRUST PROPERTY	TWO HR	11/10/1999	TIERI	Hazardous Material
2-0013015	512 MAIN ST	LUDDY CHEVROLET	120 DY	11/04/1999	REMOPS	Oil and Hazardous Material
2-0012848	770 MAIN ST	GIBBS SERVICE STA	TWO HR	06/28/1999	RAO	Oil
2-0012816	18 INDUSTRIAL DR	REED RICO	72 HR	06/04/1999	RTN CLOSED	Oil
2-0012812	56 INDUSTRIAL DR	INNER TITE CORP	TWO HR	06/03/1999	RAO	Oil
2-0012779	15 ELMWOOD AVE	DURANT REALTY TRUST	72 HR	05/06/1999	TIERI	Hazardous Material
2-0012765	752 MAIN ST	HOLDEN HEAT	TWO HR	04/27/1999	RAO	Oil
2-0012658	203 SHREWSBURY ST	BELL ATLANTIC	TWO HR	02/10/1999	RAO	
2-0012551	1401 MAIN ST	WACHUSETT REG HIGH SCHOOL	TWO HR	12/10/1998	RAO	Oil
2-0012547	RTE 122A MAIN ST	STATE POLICE BARRACKS	72 HR	12/09/1998	RAO	Oil
2-0012520	1401 MAIN ST	WACHUSETT REG HIGH SCHOOL	72 HR	11/23/1998	RAO	Oil
2-0012478	DOYLE RD	ROADWAY RELEASE	TWO HR	10/30/1998	RAO	Oil
2-0012316	752 MAIN ST	HOLDEN HEATING CO	120 DY	07/23/1998	RAO	Oil
2-0012049	409 MANNING ST	RESIDENCE	TWO HR	12/30/1997	RAO	Oil
2-0012031	18 INDUSTRIAL DR	REED RICO	TWO HR	12/16/1997	RAO	Oil
2-0012028	18 INDUSTRIAL DR	REED RICO	72 HR	12/12/1997	PSNC	Oil
2-0011968	717 WACHUSETT ST	BFI	TWO HR	11/10/1997	RAO	Oil
2-0011937	110 INDUSTRIAL DR	INNERTITE	120 DY	10/07/1997	PSC	Hazardous Material

2-0011892	944 MAIN ST	SUNNYSIDE MOTOR CO	72 HR	09/22/1997	RAO	Oil
2-0011691	HERITAGE LN	HOLDEN WATER DEPT	72 HR	04/17/1997	RAO	Oil
2-0011553	752 MAIN ST	HOLDEN HEATING CO	120 DY	12/31/1996	DPS	Oil and Hazardous Material
2-0011513	2 NEWELL ST	VILLAGE GREEN	TWO HR	12/05/1996	RAO	Oil
2-0011096	ELMWOOD AVE	DURANT REALTY TRUST PROPERTY	72 HR	05/03/1996	TMPS	Hazardous Material
2-0010968	WACHUSETT ST	1.2 MI N OF CTR	TWO HR	10/24/1995	RAO	Oil
2-0010698	MAIN ST	NEW POLICE STA	TWO HR	03/11/1995	RAO	Oil
2-0010572	122 MAIN ST	LOVELL ST	TWO HR	12/07/1994	RAO	Oil
2-0010546	513 MAIN ST	GEORGE LUDDY CHEVROLET	120 DY	10/26/1994	REMOPS	Oil
2-0010201	RTE 190 EXIT 2	ARRARAT ST EXIT	TWO HR	02/22/1994	RAO	Oil
2-0010195	2443 2451	WORCESTER BROOK	TWO HR	10/18/1993	RAO	Hazardous
	NORTH MAIN ST	RTE 122A				Material
2-0001081	1 OLD SALISBURY ST	SUNNYSIDE MOTORS	NONE	09/28/1993	LSPNFA	Oil
2-0000835	770 MAIN ST	CHARTER FUEL STA FMR	NONE	07/15/1991	RAO	Oil
2-0000764	1042 MAIN ST	MARANE TEXACO FMR	NONE	10/15/1990	RAO	
2-0000753	1175 MAIN ST	MOBIL STATION 01- EN3	NONE	07/15/1990	RAO	
2-0000741	944 MAIN ST	SUNNYSIDE MOTORS CO	NONE	04/30/1990	WCSPRM	
2-0000613	515 SOUTH MAIN ST	HUNTS SHELL	NONE	04/15/1989	DEPNFA	
2-0000565	346 SHREWSBURY ST	EMMANUEL LUTHERAN CHURCH	NONE	03/30/1989	RAO	
2-0000058	18 INDUSTRIAL DR	REED ROLLED THREAD DIE CO	NONE	01/15/1987	DEPNFA	

#### \*Compliance Status Categories:

■ DEPNFA - Response actions were conducted for the release/site and MassDEP determined that no further action was needed for the site.

- DPS A site where a DPS Submittal to DEP has stated that contamination on the property is coming from an up-gradient property. Because the source of contamination is not within the control of the downgradient property owner/operator, certain requirements and deadlines are suspended as long as DPS remains in effect. The Downgradient Property Status provisions may be found in the Massachusetts Contingency Plan at 310 CMR 40.0180
- LSPNFA means that response actions were conducted and an LSP has determined that no further action was needed for the site.
- PSNC (Permanent Solution with No Conditions): A site/release where a Permanent Solution Statement was submitted indicating that response actions were sufficient to achieve a level of No Significant Risk for all current and foreseeable future uses of the site without the need to restrict the use of the property.
- PSC (Permanent Solution with Conditions): A site/release where a Permanent Solution Statement was submitted indicating that response actions were sufficient to achieve a level of No Significant Risk for all current uses of the property, but that the conditions remaining at the site (such as anthropogenic background or contamination located under a parking lot) may limit how the property can be Updated August 9, 2017 page 4 used without additional cleanup. Certain PSC closures require a deed notice or restriction.
- ROA A site/release where a Permanent or Temporary Solution Statement (formerly RAO Statement) was submitted. This statement asserts that response actions were sufficient to achieve a level of no significant risk (for Permanent Solutions) or at least ensure that all substantial hazards (for Temporary Solutions) were eliminated
- REMOPS A site where a remedial system which relies upon Active Operation and Maintenance is being operated for the purpose of eventually achieving a Permanent Solution.
- RTN Closed Future response actions addressing the release associated with this Release Tracking Number (RTN) will be conducted as part of the response actions planned for the site under another "primary" RTN. This occurs at sites where multiple releases (RTNs) have been combined under one primary RTN to simplify and streamline timelines and deadlines.
- STMRET (Statement Retracted) An RAO Statement that had been submitted for the site has been retracted.
- TIER 1 Site has been classified as Tier 1.
- TIER 2 Site has been classified as Tier 2
- TIER 1D A site/release where the responsible party fails to provide a required submittal to DEP by a specified deadline. (Formerly Default Tier 1B.)
- TMPS A site/release where a Temporary Solution Statement was submitted. This Updated August 9, 2017 page 5 statement asserts that response actions were sufficient to eliminate all substantial hazards at this time, but additional work is necessary to achieve a Permanent Solution.

- URAM (Utility-Related Abatement Measure) A Release Tracking Number has been assigned to a release where an abatement measure (response action) is being or was performed in conjunction with utility-related work.
- UNCLASSIFIED A release that has not reached its Tier Classification deadline (usually one year after it was reported), and where a Permanent or Temporary Solution Statement, DPS Submittal, or Tier Classification Submittal has not been received by DEP.
- WCSPRM A Waiver Completion Statement has been submitted to DEP.

#### **Ground and Surface Water Pollution**

Reference Table 11, DEP Reportable Releases, these are point source discharges with the potential to contaminate ground and surface water.

The 15-acre Holden landfill is located off River Street (Map 81, Parcel 4) began accepting solid waste in 1955 and was closed in 1992. The capped, unlined landfill is classified as a Closed Landfill with Environmental Monitoring required (CLF) by the MA Department of Environmental Protection (MADEP). The Town received a Comprehensive Site Assessment (CSA) permit from the MADEP in July 2020. The Town is working with a consultant on the preparation of a Corrective Action Alternative Analysis (CAAA) scope of work for DEP approval. The monitoring of gas, groundwater, surface water and sediment continues to be performed quarterly or biannually as required.

The Town of Holden Stormwater Management Bylaw seeks to regulate illicit discharges and land disturbance activities with the potential to contribute contaminated stormwater runoff to the Town's municipal storm drain system. The Bylaw is required to meet all applicable federal and state requirements of the Town's National Pollutant Discharge Elimination System Small Municipal Separate Storm Sewer Systems General Permit, commonly known as the "NPDES MS4 permit".

The bylaw and concurrent regulation are necessary to protect the Town's waterbodies and groundwater, and to safeguard the public health, safety, welfare, and the environment. Increased volumes of stormwater, contaminated stormwater runoff from impervious surfaces (non-point source pollution) and soil erosion and sedimentation are major causes of impairment of water quality and flow in lakes, ponds, streams, rivers, wetlands, and groundwater; contamination of drinking water supplies; erosion of stream channels; alteration or destruction of aquatic and wildlife habitat; flooding; and overloading or clogging of municipal catch basins and storm drainage systems.

In addition to the local bylaw, developers are required to obtain a Construction General Permit (CGP) from the US EPA for any land disturbing activities over one acre in size. The CGP authorizes the discharge of stormwater (and certain authorized non-stormwater discharges) from construction sites that disturb one acre or more of land, and from smaller sites that are

part of a larger, common plan of development. This permit requires operators of such construction sites to implement stormwater controls and develop a Stormwater Pollution Prevention Plan (SWPPP) to minimize the amount of sediment and other pollutants associated with construction sites from being discharged in stormwater runoff.

Holden utilizes a variety of bylaws and regulations to protect its natural resources and open spaces. These include the Aquifer Protection District, regulations governing the public use of the waters of Eagle Lake, Water Use Restriction Bylaw, Stormwater Management and Erosion Control Bylaw, Illicit Discharge Control Bylaw, Wetland Bylaw, and Water Protection Bylaw. The Town utilizes various mapping sources to identify important water resource protection areas. This information is critical for the protection of existing open spaces as well as for guiding decision makers during the open space and recreation planning process.

# Erosion, Chronic Flooding, & Sedimentation

According to the "2019 Annual Town Report", 34 water system leaks or breaks were identified and repaired. 120 miles of roads were swept, plowed, sanded, and inspected for defects, in addition to 20 miles of sidewalks. The Holden Department of Public Works (DPW) and the Board of Health were asked whether there were issues of erosion chronic flooding, and sedimentation in town. No problems were identified, though there are occasional discharges from development sites. These discharges are addressed on a case-by-case basis with Enforcement Orders issued by the Conservation Commission.

Culverts and stormwater infrastructure are recognized as a vulnerability Town-wide. The Quinapoxet Culvert/Tannery Brook Culvert is of particular concern and is slated for replacement in the Spring of 2022. There is a general recognition that many culverts have significantly aged and were not designed to accommodate historic patterns of precipitation and runoff, which are rapidly transforming as a result of climate change. As precipitation events become more intense and less predictable, undersized culverts are expected to pose a greater threat of failure and flooding.

# **Development Impacts**

In the last twenty years, Holden has lost about 1,134 acres of forest, 115 acres of pasture, and 77 acres of cropland, while about 1,020 acres have been converted to residential use and 34 acres to commercial and industrial use. In additional to loss of land, increased development has also resulted in erosion and sedimentation depositing into many of Holden's water resources. This increases the eutrophication process, and results in significant increases aquatic vegetation growth. The Town adopted new a Stormwater Management Bylaw in 2020 which increased the erosion controls, stabilization efforts and filing requirements for all construction projects within the Town.

# **Forestry Issues**

Forestry issues that impact open space and recreation planning include conflicts with existing uses, forest management (i.e. harvesting) activities, problematic native and non-native invasive species as well as the extent and location of protected forestlands.

Forest Cutting Plans being implemented on State-owned, municipally-owned, or private woodlands and in close proximity to open space and public trails (i.e. rail trail) can cause users to question the nature of activities being carried out during forestry operations. Popular complaints from abutters and the general public about forest management and timber harvesting in Holden include the "mess" that is made by leaving the logging residue or slash on the ground after the harvest is complete, the close proximity of forestry operations to protected resource areas (i.e., wetlands and streams) as well as resultant damage to access roads, walking and biking trails.

The Massachusetts Forest Cutting Practices Act (FCPA) regulates any commercial timber cutting of wood products greater than 25 thousand board feet or 50 cords on any parcel of land at any one time, including private, municipal, and State-owned lands. If an activity is not exempt, the FCPA requires filing a Forest Cutting Plan with the Department of Conservation and Recreation (DCR) and the local Conservation Commission at least ten business days before the proposed start date. The FCPA was created to ensure the long-term public benefits provided by forests and states that public welfare requires the rehabilitation, maintenance, and protection of forestlands for the purposes of conserving water, preventing floods and soil erosion, improving the conditions for wildlife and recreation, protecting, and improving air and water quality, and providing a continuing and increasing supply of forest products.

All invasive plants were first introduced to our area by humans as landscape specimens or, in some cases, accidentally. Because they did not evolve in our region, the natural mechanisms that normally control these species in their home ranges don't exist. As a result, these non-native plants can out-compete, displace, and kill our native species. Examples of harmful non-native species include oriental bittersweet, Japanese knotweed, common barberry, and buckthorn.

The current issues in forest health of the greatest concern to the DCR's Forest Health Program include both introduced and native insects and diseases. Some pests are of statewide concern while others are present in specific geographic areas.

#### Current threats to Massachusetts forests include:

Asian Longhorn Beetle (ALB) Emerald Ash Borer (EAB) Spongy Moth (aka Gypsy Moth) Winter Moth Southern Pine Beetle Spotted Lanternfly Beach-Leaf Disease Hemlock Wooly Adelgid

Holden possess an abundance of forestlands compromising approximately 15,489 acres or 67 percent of the town's total area. The Commonwealth of Massachusetts owns roughly 4,290 acres in Holden. The land is split in ownership between the Department of Fish and Game (DFG) and the Department of Conservation and Recreation (DCR). Lands held by the City of Worcester account for 9.74 percent of the municipally owned open space in Holden. For many decades, portions of the forest owned by the City of Worcester surrounding Worcester's reservoirs have remained uncut. These areas contain unusually mature and tall woodlots. The quantity, quality and location of State-owned and municipally-owned protected lands largely influence current and future open space and recreation planning in Holden.

# **Solid Waste Disposal**

Trash removal and recycling services are provided by the Town through Casella Waste Services. Recycling waste is collected every other week. The Town currently recycles over one third of municipal waste. In 2019, Casella collected 4,640 tons of trash and 1,861 tons of recycled materials.

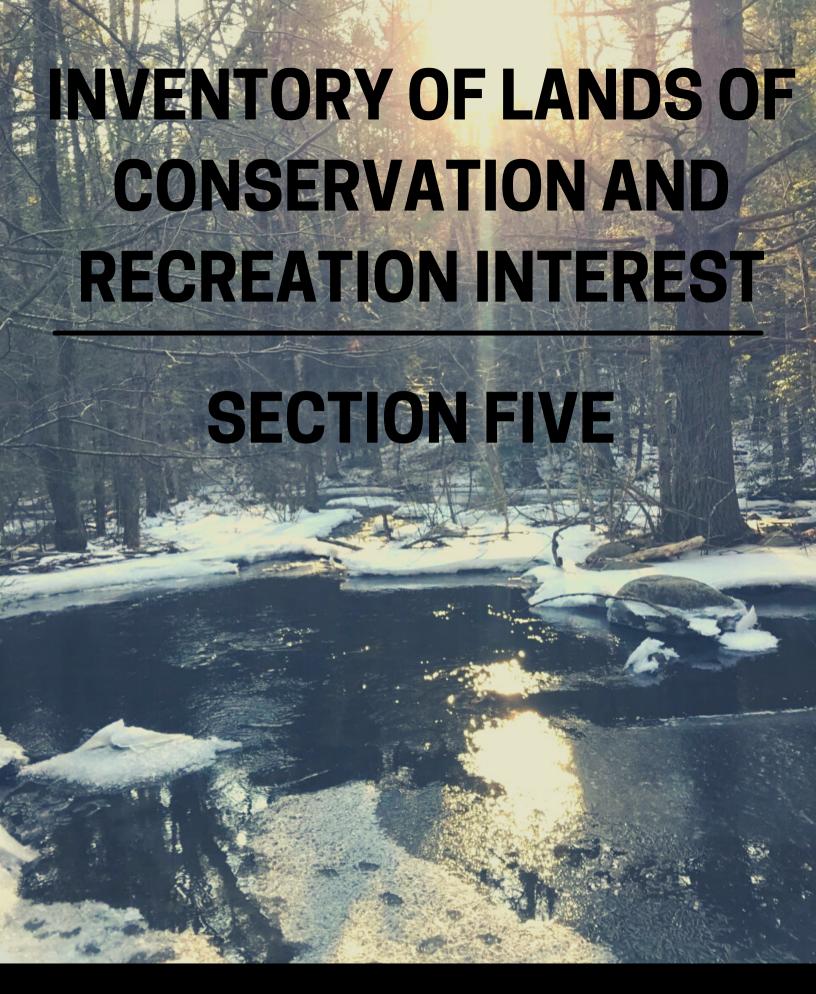
Wachusett Earthday Inc. is a seven-town collaborative effort to provide a local solution to difficult to recycle household items. WEI operates at the Wachusett Watershed Regional Recycling Center at 131 Raymond Huntington Highway in West Boylston on property owned by the MA Department of Conservation and Recreation (DCR). Funded in part by the seven towns of Boylston, Holden, Paxton, Princeton, Rutland, Sterling & West Boylston, and supported by the MA Department of Environmental Protection, WEI also provides a place to share gently used but still serviceable household items. The facility is staffed almost exclusively by a large number of dedicated volunteers from surrounding towns. A total of 31,521 vehicles come through the site in 2019 and total gallons of HHP collected increased from to 9,198. In addition 1,261 gallons of latex paint was diverted for recycling. Mattress/box spring recycling continues to be successful - over 1,200 were collected in 2019. On site solar arrays have helped offset some of the cost of operating the facility.

# **Environmental Equity**

In Holden, open space and recreation resources can be found throughout the Town, however there are some recreation dead zones in the central and southeastern part of Town. In the central part of Town, at the cross section of Route 122A and Route 31, and in the southeastern part of Town, east of Route 122A, there are very few recreation and open space options. The nearest, largest tracts of open space lands are Chapter 61, 61 A, and 61 B lands, which are not all publicly accessible and could be lost to development in the future if sold and not acquired

by the Town. These areas contain a higher density of housing, and thus these residents cannot easily access the larger recreation areas in Town. Instead of being able to walk to nearby parks, fields, or trails, these residents often have to drive or rely on other transportation to utilize these areas. There are a handful of undeveloped parcels in these dead zones that the Town should consider acquiring for additional open space and recreational opportunities.

Additionally, the City of Worcester owns 3,283.93 acres of land in Holden for the City's water supply land, and the Town of Holden owns about 35.7 acres of water supply protection land. While this land is protected from development, it does not allow for public access or use of this resource by Holden's residents.



# INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST

Open space areas and recreation facilities provide numerous social and ecological benefits. They contribute to quality of life and community character, provide a center for community activities, protect, and enhance nearby property values, attract businesses, and can otherwise minimize excessive Town spending. Well maintained and managed open space can significantly improve quality of life by protecting water supplies, providing natural means of stormwater infiltration, reducing localized flooding, improving air quality, and through many other means.

Protecting open space is an ongoing process requiring management plans, active pursuit of additional properties to conserve, and ensuring adequate resources are established to maintain and purchase these areas. When possible, this process should be done at a landscape level, thereby allowing decision making processes to encapsulate regional needs and maximize benefits of increased wildlife corridors and expanded connectivity. Working to conserve lands with these thoughts in mind will increase biodiversity and increase habitat patch size. Preserving and protecting large contiguous patches can be expected to result in greater core habitat area, thereby increasing the ecological integrity.

The Open space and recreation areas in the Town of Holden include a variety of landscapes and land types with various owners, managers, and degrees of protection. The purpose of this inventory is to identify areas of conservation and recreation interest in the Town to evaluate current and future open space planning needs. Areas of interest include open spaces that are valued for recreation opportunities, protection of natural resources, historic resources, and scenic character.

This inventory looks at protected and unprotected open space. Protected open spaces are private or public parcels that are permanently committed to conservation or recreation purposes by deed restriction or easement. Unprotected open spaces are areas that are of conservation or recreation interest to the town but are not permanently protected as open space. Partially protected open spaces are areas that have a partial or temporary restriction on development, such as Chapter 61 lands and some municipal lands such as parks or ball fields that could but are unlikely to be developed

#### A. PRIVATE PARCELS

#### **Article 97 Lands**

Within each type of ownership, parcels may be under permanent protection, or limited protection and/or no protection. Article 97 of the Articles of Amendment to the State Constitution provides permanent protection of certain lands acquired for natural resource purposes, meaning "conservation, development and utilization of agricultural, mineral, forest, water, air and other natural resources." Lands of this nature are often owned by the municipal conservation commission, recreation commission, water department, or by a state or federal conservation agency (i.e. the Executive Office of Energy and Environmental Affairs (EEA), or Division of Fish and Wildlife (DFW)). Public and private non-profit conservation and recreation lands can also be protected under Article 97. Removing the permanent protection status of such lands is extremely difficult, as is evidenced by the following required steps:

- 1. The municipal conservation commission or recreation commission must vote that the land in questions is surplus to its needs;
- 2. The removal of the permanent protection status must be approved at a Town Meeting/city council vote and pass by a two-thirds vote;
- 3. The municipality must file an Environmental Notification Form (ENF) to satisfy the Massachusetts Environmental Policy Act (MEPA);
- 4. The removal of permanent protection status must be approved by both the State House of Representatives and the State Senate and pass by a two-thirds majority; and
- 5. In the case of land either acquired or developed with grant assistance from the EEA Division of Conservation Services, the converted land must be replaced with land of equal monetary value and recreational or conservation utility.

The table below depicts the parcel in the Town of Holden protected under Article 97.

Table 12. Article 97 Properties in Holden, MA.

GIS	
Acres	%
11.62	0.12%
122.42	1.27%
381.47	3.97%
3,283.93	34.17%
16.02	0.17%
3,854.63	40.11%
5.11	0.05%
5.52	0.06%
	Acres 11.62 122.42 381.47 3,283.93 16.02 3,854.63 5.11

Robinson APR	38.17	0.40%
Sandstrom APR	260.83	2.71%
Holden Reservoir Watershed CR	74.69	0.78%
Malden Brook Farms APR	15.83	0.16%
Town Forest	7.86	0.08%
Mill Street Water Supply Land	17.24	0.18%
Wisner WPR	19.43	0.20%
Wadsworth Brook Conservation Area	24.13	0.25%
Foley WPR	1.86	0.02%
Eagle Lake Wildlife Sanctuary	134.90	1.40%
Kinney Woods	52.45	0.55%
Fleming WPR	17.82	0.19%
Keskula WPR	25.84	0.27%
Holden Town Forest	136.59	1.42%
Winthrop Oaks Conservation Area	6.25	0.06%
Former Rice School Athletic		
Facilities	2.56	0.03%
Heath WPR	16.35	0.17%
Dourdeville & Carnright WPR	3.84	0.04%
Dresser & Mccandless WPR	14.54	0.15%
Kaplan WPR	17.71	0.18%
Davenport WPR	15.01	0.16%
Quabbin Aqueduct	22.54	0.23%
Holden Hills Country Club CR	98.22	1.02%
Muschopauge Brook Project	26.77	0.28%
Trout Brook Conservation Area	664.89	6.92%
Quinapoxet River Access	31.80	0.33%
Dourdeville Denise APR	4.11	0.04%
Stafford WPR	12.40	0.13%
Malden Hill Conservation Area	13.33	0.14%
Lundquist & Swanson WPR	3.72	0.04%
Holbrook Forest	24.08	0.25%
Holden Water Supply Land	18.44	0.19%
Robbins CR	9.57	0.10%
McShea CR	10.97	0.11%
Porcupine Hill Sanctuary	57.54	0.60%
Porcupine Hill II Conservation Area	26.29	0.27%
Grand Total	9,609.31	100.00%

# Chapter 61 Lands

In addition to the above open space resources there are 1,541.14 acres registered in the Chapter 61 tax abatement program. Private lands that are within the State's special taxation programs (Chapter 61) are not considered permanently protected. The vast majority of privately-owned parcels that have "limited protection" status fall under the Chapter 61 taxation program. The Chapter 61 program is an avenue for larger land holders to receive tax relief for undeveloped parcels. Private owners must meet certain criteria to qualify for property tax reductions. In return, the reduced taxes serve as an incentive for them to continue using their land for agriculture, forestry, or recreation. The landholder may apply to one of three categories within the Chapter 61 program to receive a substantial tax reduction. If the property is taken out of Chapter 61 classification, the Town is given the first option to purchase the property at fair market value. If the Town refuses this option, the owner must pay a penalty for removing the property from Chapter 61 status.

Table 13. All Chapter Lands in Holden, MA.

All Chapter Land Types					
Chapter Type	CAMA Acres				
Chapter 61	429.14	27.85%			
Chapter 61A	1003.97	65.14%			
Chapter 61B	108.0347	7.01%			
Grand Total	1541.1447	100.00%			

Chapter 61(Forest) land requires ten contiguous acres with a ten-year management plan approved by the State Forester. Chapter 61A (Agricultural/Horticultural) requires an applicant to make a long-term commitment to farming. The property must be a minimum of five

contiguous acres and the owner must receive a minimum gross sale revenue of \$500 a year for the first five acres and \$5 for each additional classified acre. Chapter 61B (Recreational) lands require the owner to make a long-term commitment to preserve land for outdoor activities. The property must be a minimum of 5 contiguous acres. The property does not have to be open to the



public. The parcel can be held as private undeveloped, open space land or utilized for a variety of recreational purposes.

In the Town of Holden there are 1,541.14 acres of land listed as Chapter lands. Of those, 429.14 acres are Chapter 61 (Forestry), 1,003.97 acres are Chapter 61A (Agricultural), and 108.03 acres are Chapter 61B (Recreational). Since these protections can be removed, the number and type of properties may vary from year to year.

The Town of Holden Right-to-Farm Bylaw encourages the pursuit of agriculture, promotes agriculture-based economic opportunities, and protects farmlands within the town of Holden by allowing agricultural uses and related activities to function with minimal conflict with abutters and town agencies. This By-law applies to all jurisdictional areas within the town.

Table 15. Chapter 61 Lands in Holden, MA.

Property ID CAMA Acres

**Chapter 61 List** 

%

			13_1	24.46	5.70%
			17_2	3.61	0.84%
			18_2	39.72	9.26%
			181_2	7.75	1.81%
ole 16. Chapt	ter 61 B Lands in	Holden, MA	181_4	0.19	0.04%
			181_5	0.92	0.21%
Cł	napter 61B List		181_9	8.73	2.03%
roperty ID	CAMA Acres	%	192_1	90.00	20.97%
175_64	10.30	9.53%	206_3	41.88	9.76%
175_65	5.70	5.27%	219_2	87.64	20.42%
175_66	2.52	2.33%	219_3	20.00	4.66%
183_21	2.36	2.18%	220_40	5.14	1.20%
184_3_1	8.59	7.95%	221_12_1	59.24	13.80%
184_4	25.97	24.04%	35_1	13.41	3.12%
195_1	32.09	29.70%	4_2	0.20	0.05%
196_1	13.52	12.51%	67_2	21.25	4.95%
85_5	7.00	6.48%	9_1	5.00	1.17%
rand Total	108.03	100.00%	<b>Grand Total</b>	429.14	100.00%

Chapter 61A List						
Property ID	CAMA Acres	%				
1_3	30.75	3.06%				
101_5	88.82	8.85%				
106_10	8.00	0.80%				
107_5	12.75	1.27%				
108 10	12.32	1.23%				
122 1	36.95	3.68%				
122 8	12.00	1.20%				
 129_14	4.50	0.45%				
 136_10	18.76	1.87%				
137_1	1.00	0.10%				
137_3	12.77	1.27%				
137_4	3.27	0.33%				
151 2	17.00	1.69%				
183 1 1	42.39	4.22%				
183_1_1	0.18	0.02%				
183_27	11.00	1.10%				
21 2 1	15.80	1.57%				
250_6_1	29.99	2.99%				
30_0_1	103.11	10.27%				
30_1	38.30	3.81%				
36_18	1.60	0.16%				
_	2.17	0.10%				
36_19 45_13						
45_13 45_45	6.02	0.60%				
45_15	8.70	0.87%				
45_9	5.40	0.54%				
55_2	29.70	2.96%				
55_2_2	1.20	0.12%				
55_4	8.46	0.84%				
55_5	0.14	0.01%				
56_4	6.90	0.69%				
56_6	47.42	4.72%				
68_4	0.65	0.06%				
69_1	5.81	0.58%				
69_11	0.48	0.05%				
69_2	17.23	1.72%				
69_3	3.71	0.37%				
69_4	28.00	2.79%				
69_8	1.20	0.12%				
69_9	6.85	0.68%				
70_3	6.49	0.65%				
83_1	33.08	3.29%				
83_12	2.03	0.20%				
83_8	14.50	1.44%				
83_9	1.50	0.15%				
90_34	9.23	0.92%				
91_8	5.57	0.55%				
94_1	15.43	1.54%				
94_14	234.78	23.39%				
94_3	0.06	0.01%				
<b>Grand Total</b>	1,003.97	100.00%				

Tabl

Chapter 61B List						
Property ID	CAMA Acres	%				
175_64	10.30	9.53%				
175_65	5.70	5.27%				
175_66	2.52	2.33%				
183_21	2.36	2.18%				
184_3_1	8.59	7.95%				
184_4	25.97	24.04%				
195_1	32.09	29.70%				
196_1	13.52	12.51%				
85_5	7.00	6.48%				
<b>Grand Total</b>	108.03	100.00%				

# **Agricultural Preservation Restriction**

Private lands can be protected in perpetuity through deed restrictions or conservation easements. Privately-owned farmland is considered protected under an Agricultural Preservation Restriction (APR), when the development rights have been bought by the state in order to preserve the land for active agricultural use. According to Town GIS records, there is a total of 451.99 acres of land in Holden protected under APR. The table below depicts the properties with APRs.



Table 17. APR Lands in Holden, MA.

Agricultural Preservation Restriction						
	GIS					
Site Name	Acres	%				
Dourdeville Denise APR	4.11	0.91%				
Malden Brook Farms APR	15.83	3.50%				
Maynard Farm	5.52	1.22%				
Oldakowski Jozefa APR	122.42	27.08%				
Perkins APR	5.11	1.13%				
Robinson APR	38.17	8.44%				
Sandstrom APR	260.83	57.71%				
Grand Total	451.99	100.00%				

#### **Conservation Restrictions**

A conservation restriction (CR) is a legal document, which extinguishes development rights and ensures a particular property will remain as open space. It is a permanent deed restriction, recorded with the Registry of Deeds, and binding on all future owners of a parcel. It identifies the important ecological features of the property and the public benefit which results from preserving the natural condition of the land. Conservation restrictions may be granted by public or private landowners to qualified organizations. The property owner retains ownership of the land and may sell or bequeath the preserved land with all restrictions in place. According to Town GIS records, the Town of Holden currently has 471.34 acres of land protected under CR. The able below depicts the properties in Town with CRs.

Table 18. CR Lands in Holden, MA.

Conservation Restriction			
Site Name	GIS Acres	%	
Brooks CR	32.00	6.79%	
Dearborn/Gustafson CR	19.98	4.24%	
Durham CR	84.33	17.89%	
Holbrook Forest	24.08	5.11%	
Holden Hills Country Club CR	98.22	20.84%	
Holden Reservoir Watershed CR	74.69	15.85%	
Kinney Woods	52.45	11.13%	
Malden Hill Conservation Area	13.33	2.83%	
McShea CR	10.97	2.33%	
Muschopauge Brook Project	26.77	5.68%	
Nicks Woods	0.83	0.18%	
Robbins CR	9.57	2.03%	
Wadsworth Brook Conservation			
Area	24.13	5.12%	
Grand Total	471.34	100.00%	

#### **Private For-Profit**

Holden Hills Golf Course is an 18-hole golf course with a pro shop and restaurant. The North Worcester Fox and Coon Club provides a shooting range for its members that includes outdoor pistol, outdoor rifle, muzzle loading, trap, sporting clays, and archery. Holden Towers Tennis club has 6 outdoor clay tennis courts for its members. In addition to club house and off-street parking, the club house has men's and women's showers and lockers.

The Nimrod League of Holden was established in 1923 to promote, protect, and perpetuate hunting, fishing, and trapping with equal rights for all, special privileges to none, and strict observance of the fish and game laws of this Commonwealth. Located on Coal Kiln Road in Princeton, Massachusetts, the club occupies 450 picturesque acres of land that straddles the border of Holden and Princeton, MA. The terrain of the land varies from hardwood to conifer forest, including fields, swamp, laurel, rolling hills, and rocky ledge. There are networks of trails that intersect the property that can be used for hiking, camping, and ATV riding (club members only). The land is host to many species including deer, turkey, fox, coyote, moose, bobcat, hare, grouse, pheasant, and more. As a non-profit organization the Club is maintained through the volunteer efforts of its members.

Table 19. Private For-Profit Open Space Lands in Holden, MA.

Private for Profit Open Space							
	GIS						
Site Name	Acres	%					
Brooks CR	32.00	3.08%					
Davenport WPR	15.01	1.45%					
Dearborn/Gustafson CR	19.98	1.93%					
Dourdeville & Carnright WPR	3.84	0.37%					
Dourdeville Denise APR	4.11	0.40%					
Dresser & Mccandless WPR	14.54	1.40%					
Durham CR	84.33	8.13%					
Fleming WPR	17.82	1.72%					
Foley WPR	1.86	0.18%					
Heath WPR	16.35	1.58%					
Holden Hills Country Club	1.20	0.12%					
Holden Hills Country Club CR	98.22	9.47%					
Holden Reservoir Watershed							
CR	74.69	7.20%					
Kaplan WPR	17.71	1.71%					
Keskula WPR	25.84	2.49%					
Lundquist & Swanson WPR	3.72	0.36%					
Malden Brook Farms APR	15.83	1.53%					
McShea CR	10.97	1.06%					
Muschopauge Brook Project	26.77	2.58%					
N Worcester Fox & Coon Club	84.79	8.17%					
Oldakowski Jozefa APR	122.42	11.80%					
Perkins APR	5.11	0.49%					
Robbins CR	9.57	0.92%					
Robinson APR	38.17	3.68%					
Sandstrom APR	260.83	25.14%					
Stafford WPR	12.40	1.20%					
Wisner WPR	19.43	1.87%					
Grand Total	1,037.51	100.00%					

#### **B. Public and Nonprofit Parcels**

Trout Brook Reservation is open to the public and has publicly accessible trails. Though because of the slope or nature of the land, not all trails are suitable for access for those who are disabled. The wooded trails are maintained by volunteers. This area has good parking space, a lodge available for community activities, picnic shelters and a small field used for junior soccer. The Holden Department of Public Works helps maintain Trout Brook Reservation. Mason Park is adjacent to and contiguous with Trout Brook Reservation also offers hiking trails. The Town Forest was deeded by a former resident as a wooded lot. It has attractive hiking trails which continue onto adjacent DCR land. The gradients are likely too steep for the disabled and there is limited off-street parking. Jefferson Park is a small parcel adjacent to St Mary's Church, which provides a pleasant mown area and some benches for passersby to rest on. Winthrop Oaks is a 25-acre park with a playground. Mayberry Park is another small quiet parcel with a bench. Eagle Lake has a nature trail created by the Boy Scouts along part of the shoreline. Accessible paved ramp to beach and accessible bathrooms are available.

Dawson Recreation Area has two swimming pools with accompanying changing rooms and staff offices, tennis courts, paddleball court, basketball courts, a playground and playing fields. This attractive facility was built with the aid of the Town Infrastructure Investment Fund. The Municipal Light Department, former Chaffin's School, offers a full-sized soccer field, basketball court and playground equipment. The Senior Center (the Bubar field) has a Babe Ruth baseball field. Wachusett Regional School Offices, the former Jefferson School and now the Regional School Administrative Offices, has a soccer field, a softball field, and a playground. The Former Rice School has a T-ball field, tennis courts, and playground equipment.

The table on the following page depicts the various town-owned and state-owned open spaces in Holden.

Table 20. Municipally Owned Open Space and Recreation Lands in Holden, MA.

Site Name	Managing Agency	Existing Use	Public Access	Recreational Potential	Condition	Protection Level	Grant	Acres	Zoning	Zoning Name
Un-named, forested land, 153-3	Town of Holden Conservation Commission	Forest	No	No	Good	Permanent	None	11.623412	R-40	Residential - Rural
Davis Hill Elementary School Playground	Town of Holden School Department	Recreation, 2 Baseball Fields Playgrounds, four Soccer/football Fields	Yes	Improve Existing Facilities	Poor/Fair	Limited	None	16.569833	R-2	Residential - Suburban 2
Dawson Elementary School Playground	Wachusett Regional School District	Recreation Playground Baseball	Yes	Field Improvements/ Basketball	Poor	Limited	None	12.252135	R-1, R- 10	Residential - Suburban 1 Residential - Suburban 3
Dawson Recreation Area	Town of Holden Parks and Recreation Department	Recreation Pool Basketball Tennis Playground multi use field little league baseball field	Yes	Hiking trail connection to DPW Industrial Drive field New baseball field renovation and expansion of outdated playground	Pool Basketball good condition other facilities poor to fair	Permanent	None	2.395596	R-1	Residential - Suburban 1
Eagle Lake Town Beach	Town of Holden Parks and	Recreation Sandy Beach Walking Trail	Yes	Volleyball Court unmotorized boat launch area	Poor/Fair	Limited	None	12.796856	R-1, V	Residential - Suburban 1 Village District

	Recreation Department									
Former Chaffins School Playground	Town of Holden Parks and Recreation Department	Recreation one baseball field	Yes	No	Good	None	None	2.78176	R-2	Residential - Suburban 2
Former Rice School Athletic Facilities	Town of Holden Recreation Department	Recreation Playground Baseball and Tennis	Yes	No	Good	Permanent	None	2.564171	R-2	Residential - Suburban 2
Grove Cemetery	Town of Holden Cemetery Commission	Historic Preservation, Cemetery	Yes	No	Good	Limited	None	41.326269	R-10, R- 2	Residential - Suburban 3 Residential - Suburban 2
Holbrook Forest	Town of Holden Conservation Commission	Conservation passive recreation trails	Yes	Hiking trails and sitting benches	Good	Permanent	LWCF	24.077657	R-40	Residential - Rural
Holden Jr High School Athletic Fields	Town of Holden School Department	Soccer/Lacross e Baseball Tennis Basketball	Yes	No	Good	Limited	None	4.67358	C, R-2	Commercial Residential - Suburban 2
Holden Town Forest	Town of Holden Conservation Commission	Conservation, Hiking, Wildlife Viewing, Mtn Biking Forestry	No	Upgrade parking area with kiosk/trail maps, improve trail blazing and marking, Forest Management,	Good	Permanent	None	151.390898	R-1, R- 40	Residential - Suburban 1 Residential - Rural

				Enhanced bird habitat						
Holden Water	Town of Holden	Water Supply	No	No	Good	Permanent	None	18.440483	R-1	Residential -
Supply Land	Water Department	Protection	110	NO	Good	remanent	None	10.440403	11-1	Suburban 1
Jefferson School	Town of Holden School Department	Recreation	Limited	Playground	Poor/Fair	Limited	None	5.181616	R-1	Residential - Suburban 1
Kimball Park	Town of Holden Parks and Recreation Department	Recreation	Yes	Parking area, Dog Park	Good	Permanent	None	9.560738	R-2	Residential - Suburban 2
Mayo Elementary School Playground	Town of Holden School Department	Recreation Multi-Use Field, Baseball, Playgrounds	Yes	Additional Athletic Fields	Good	Limited	None	16.553886	R-1	Residential - Suburban 1
Mill Street Water Supply Land	Town of Holden Water Department	Water Supply Protection	No	No	Good	Permanent	None	17.242675	R-40	Residential - Rural

Mountview Middle School Athletic Fields	Wachusett Regional School District	Soccer/Lacross e Baseball Tennis Basketball	Yes	No	Good	Limited	None	12.554693	R-2	Residential - Suburban 2
Old Burying Ground	Town of Holden Cemetery Commission	Historic Preservation, Cemetery	Yes	No	Good	Limited	None	1.279749	R-10	Residential - Suburban 3
Park Avenue Cemetery	Town of Holden Cemetery Commission	Historic Preservation, Cemetery	Yes	No	Good	Limited	None	2.009884	R-10	Residential - Suburban 3
Holden Town Forest western parcel	Town of Holden	Conservation, Hiking, Wildlife Viewing, Mtn Biking Forestry	No	Upgrade parking area with kiosk/trail maps, improve trail blazing and marking, Forest Management, Enhanced bird habitat	Good	Permanent	None	7.856369	R-40, R- 1	Residential - Rural Residential - Suburban 1
Town Wells	Town of Holden Water Department	Water Supply Protection	No	No	Good	Permanent	None	16.024783	I, R-1	Industrial Residential - Suburban 1
Trout Brook Conservation Area	Town of Holden Conservation Commission	Conservation Hiking, Biking, Pavilion, Lodge, Fishing	Yes	Dog Park, Trail Improvements/ Bridge Crossing	Good	Permanent	SH	664.88955	R-40	Residential - Rural

Winthrop Oaks Conservation Area	Town of Holden Conservation Commission	Walking, Wildlife Viewing	Yes	Pocket Park, sitting area	Good	Permanent	None	6.245442	R-10	Residential - Suburban 3
Worcester Water Supply Land	City of Worcester Water Department	Water Supply Protection	No	No	Good	Permanent	None	3283.930337	R-40, I- Q, R-1	Residential - Rural Industrial- Quarry Residential - Suburban 1

Table 21. State Owned Open Space and Recreation Lands in Holden, MA.

State Open Space		
	GIS	
Site Name	Acres	%
Poutwater Pond WMA	381.47	8.89%
Wachusett Reservoir		
Watershed	3,854.63	89.84%
Quabbin Aqueduct	22.54	0.53%
Quinapoxet River Access	31.80	0.74%
Grand Total	4,290.44	100.00%

# Non- Profit and Land Trust Open Space

The White Oak Land Conservation Society (WOLCS), a local non-profit, owns 434.39 acres of open space in the Town of Holden. Some of the man WOLCS properties include Maynard Farm, Porcupine Hill Sanctuary, Wadsworth Brook Conservation Area, Eagle Lake Mill Pond, Winter Hill Conservation Area, to name a few.

The Eagle Lake Sanctuary, a 358.36-acre wildlife conservation area, is owned by Mass Audubon, a state-wide, membership-based, non-profit organization. An entry fee is charged for non-members. A three-mile marked trail loops through forests of oak, pine, and hemlock and skirts the meandering Asnebumskit Brook.

The Mass Central Rail Trail (MCRT) is maintained by Wachusett Greenways. This trail was constructed on the former railroad bed in large part by volunteers. The trail is used for hiking/walking, biking, cross country skiing, and snow shoeing, handicap accessible. Wachusett Greenways also hosts Historical Mill tours. In 2006 the Holden DPW spent many man and equipment hours on the Rail Trail between River Street Holden and West Boylston at the Wachusett Reservoir. The MCRT is envisioned as a non-motorized recreational rail that will follow the entire length of the Massachusetts Central rail line right-of-way, which encompasses 25 communities between Boston and Northampton and splits the state in half. A separate trail in Holden, also spearheaded by Wachusett Greenways, connects Trout Brook Park conservation land with Sterling Road. It is approximately 3 ½ miles in length and was completed prior to 2003.

Table 22. Open Space and Recreation Properties in Holden, MA owned by Land Trusts.

	Land Trust Open Space							
Owner Name	Site Name	GIS Acres	%					
Massachusetts Audubon Society	Eagle Lake Wildlife Sanctuary	342.24	35.12%					
iviassaciiusetts Adduboli Society	Laurel Woods Wildlife Sanctuary	16.12	1.65%					
	Cascades West	115.12	11.81%					
	Kinney Woods	52.45	5.38%					
	Malden Hill Conservation Area	13.33	1.37%					
	Nicks Woods	0.83	0.09%					
	<null></null>	115.39	11.84%					
Constant Warranton Land Tour	Anne Street Conservation Area	6.55	0.67%					
Greater Worcester Land Trust	Chapin Road Conservation Area	9.89	1.01%					
	Eagle Lake Mill Pond	0.69	0.07%					
	Holbrook Forest	58.87	6.04%					
	Penny Lot	5.31	0.55%					
	Porcupine Hill II Conservation Area	26.29	2.70%					
	Porcupine Hill Sanctuary	57.54	5.91%					
	Salisbury Acres Conservation Area	10.77	1.11%					
	Salisbury Street Conservation Area	7.48	0.77%					
White Oak Land Conservation	Wachusett Valley Estates Conservation							
Society	Area	26.62	2.73%					
Society	Wadsworth Brook Conservation Area	24.13	2.48%					
	Winter Hill Conservation Area	16.24	1.67%					
	Winter Ridge Conservation Area	63.09	6.47%					
G	rand Total	974.48	100.00%					

Chaffin's Recreation Association (CRA) on South Main Street has 2 baseball fields (little league and triple A), and two outdoor basketball courts with concession stand and vending machines. Chaffins Recreation Area is a valuable recreational resource in the Town of Holden and managed by a non-profit organization. The building has suffered from a lack of maintenance; the Town should work with the organization to ensure long term protection of the building and fields.

Camp Kinneywood is located on Stonehouse Hill Road and owned and operated by the non-profit Girls Inc of Worcester. A private pond for swimming and boating, a field for organized games, a tetherball set up, a basketball hoop, picnic tables with a grill, hiking trails, and a recreational hall are located at the facility. These are available for family functions, church groups, and organizational outings on weekends from May through October.

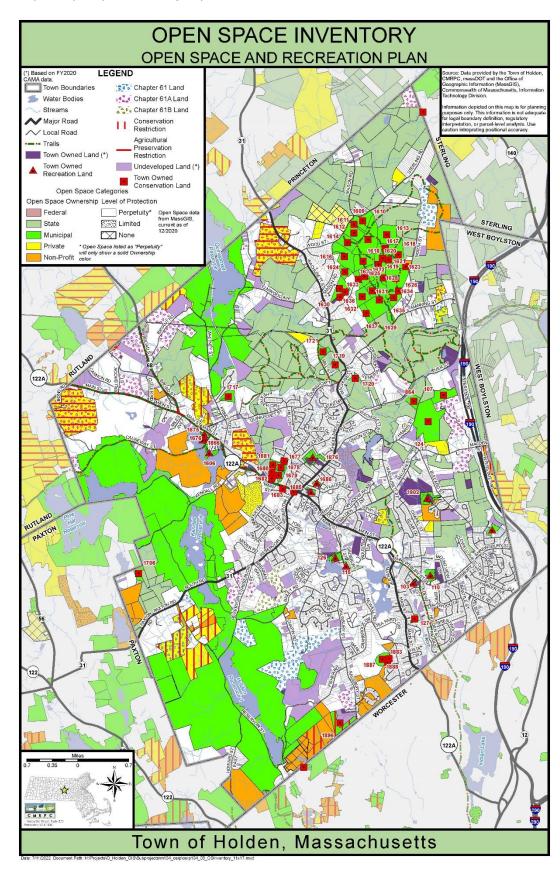
Table 23. Privately Owned Non-Profit Open Space and Recreation Lands in Holden, MA.

Private Non-Profit Open Space						
GIS						
Site Name	Acres	%				
Camp Kinneywood	62.73	88.89%				
Chaffins Mens Club	7.84	11.11%				
Grand Total	70.57	100.00%				

#### Holden Community Garden

The Holden Community Garden Committee was formed by a group of concerned citizens who rejected the proposal to allow residential development of the property, and instead insisted that the best use for the area would be to maintain open green space for the enjoyment of the community. Since 2015, the Holden Community Garden Committee has been working together to establish and maintain garden space, open to the Holden community, on the town-owned property of 175 Highland Street, formerly known as the Creamer Property. Where there was once the closed Recreational Department building and unkempt wooded/brush filled area, there is now an expansive open space with 11 garden beds and perennial gardens being shared by residents, including scout troops. The Community Garden committee will be adding walking trails, benches and other features that will lend to an extended welcome to the public to visit and enjoy the site.

The Committee has received grants from Fiskars, MassAg In the Classroom, The Holden Garden Club, Seedmoney.org, and there is a modest annual budget allowed through the town, under the DPW funding budget. The Holden Community Garden was recognized with the Massachusetts Secretary's Award for Excellence in Energy and Environmental Education for the work done with the staff at the Davis Hill Elementary School. Much of the funding was received to support the branch of the community garden that was established on the edge of the property that is behind the Davis Hill School.





# **COMMUNITY VISION**

#### A. DESCRIPTION OF PROCESS

In late 2020, the Open Space Committee was formed to guide the process of updating the existing Open Space and Recreation Plan. In November 2020, the Town of Holden engaged in a contract with the Central Massachusetts Regional Planning Commission (CMRPC) for assistance in updating this OSRP. Together with CMRPC, the Committee established a 12-month timeframe within which to complete the Open Space and Recreation Plan revisioning process. On January 5, 2021, the Open Space Committee kicked off the OSRP planning process. Because this planning process occurred during the COVID-19 pandemic, all Committee meetings were held virtually via ZOOM to allow for safe public access. From January 2021 through October 2021, the Committee met on average once a month to actively plan public engagement opportunities, analyze data, revise, and review Plan sections, and develop new strategies and goals. In total, the Committee met ten times. All meetings were posted to the Town's website and with the Town Clerk in accordance with Open Meeting Law.

During the first few months of this planning process, the Open Space Committee developed a community input survey to gather feedback from the public regarding the strengths and weaknesses of the Town's open space and recreation opportunities. The survey that the Committee developed contained 20 questions and took approximately 12 minutes for most participants to complete. This survey was available online through Survey Monkey, though hard copies were available for pick-up and drop-off at the Town Hall. The survey was launched on January 29, 2021 and ran until March 31, 2021. The Committee promoted the survey using the Town of Holden's website and social media pages, the CMRPC Facebook page, email listservs, promotional flyers posted around Town, and by word of mouth. In total, there were 495

responses to the survey.

Following the close of the community input survey, the Open Space Committee began planning a public forum to gather additional feedback and to generate action plan ideas. With the COVID-19 pandemic in mind, the Committee decided to host an outdoor Walkshop. Instead of holding a traditional sit-down public forum, the Committee opted for a free-flowing workshop that allowed residents the





ability to participate in as much or as little capacity as they would like. This Walkshop was held on Saturday, June 12, 2021, from 9:00 - 11:00 am at Trout Brook in Holden. During this time, residents and other stakeholders were welcome to stop in at the Walkshop, learn more about the planning process, and leave their ideas for potential open space and recreation improvements. Large maps and posterboards were dispersed at Trout Brook, allowing residents to view and mark up their favorite open space and

recreation areas in Town, as well as list their own goals and action suggestions. Coffee and donuts were provided to those who attended, and calendars were raffled off to encourage participation. In total, there were thirty-two (32) residents, Town staff, Town board and committee members, and other stakeholders who attended the event.

A draft of the plan was made available on the Town of Holden's website for viewing and public comment. A link to the draft plan was also distributed to those who submitted their email addresses when responding to the community survey or attending the Walkshop event.

#### B. STATEMENT OF OPEN SPACE AND RECREATION GOALS

With the results of the community input survey, the Holden Open Space Committee developed the following goals for this Plan and to guide the Town:

- Preserve Open Space and Natural Areas in Holden, Including Water, Agricultural, Wildlife, Wetlands, Scenic Vistas, Unique Natural Areas, Historical Sites, and Cultural Resources;
- II. Provide Active Recreation Resources and Facilities in Holden;
- III. Promote Passive Recreation and Open Space Resources; and
- IV. Develop and Implement Funding Sources and Partnerships

According to the 2019 Holden Master Plan, many residents desired better outreach including maps, wayfinding, and other information about open space access. They also desired indoor recreation facilities and better compliance with the Americans with Disability Act (ADA). And finally, it was recognized that there is a general shortage of fields regionally, and that all fields in Holden are already fully utilized or are at risk of development. This vision from the Master Plan falls in line with the results of the Open Space community survey and the Open Space Committee's goals.

During the previous planning processes in Town, the following themes were identified: Natural resource protection, historic and cultural resource preservation, open space and recreation improvement, and land use planning. Natural resources allow the Town to maintain it's rural and semi-rural character, as well as the Town's natural areas and wildlife. Natural resources in the form of fields, pasture lands, forests, ponds, streams, wetlands, hills, and wildlife make up a large part of the character that residents value. Holden's historic and cultural resources add significantly to its character, and as noted, preserving existing character is very important to townspeople. These resources include not only buildings and their grounds and settings such as the Town Common, but also heritage landscapes and scenic roads and views. It will be important to preserve and enhance these resources for the enjoyment and education of existing and future Holden residents and visitors.

The Town of Holden has considerable open space because of the watershed protection lands located in Town, though some of these lands are not accessible to the public and are therefore not available for recreational use. It is advised that the Town seize opportunities to add to its protected open space and preserve or repair its existing open space and recreational facilities. Current land use implementation measures in the Town of Holden are intended to retain the Town's existing character, to concentrate future development where infrastructure and services exist, to provide for mixed land uses where appropriate, and to ensure that land development is done in a responsible way that protects resources and has as few negative impacts as possible. It is assumed that Holden will continue to grow as the result of regional and market forces.



The Town of Holden's residents value protection of the natural environment, preservation of the Town's rural and semi-rural character, and improvement of recreation opportunities in the community. The goal of this section is to further ascertain the needs of the community as it relates to open space and recreation enhancements.

#### A. SUMMARY OF RESOURCE PROTECTION NEEDS

Resource protection is based upon the need to preserve natural and cultural resources that are finite in quality, such as wetlands, rivers, streams, historic and cultural places, scenic vistas, and aquifers. When these resources are damaged, they are not as easily replaced or repaired. With regard to this, the responses to the community input survey strongly favor the preservation of the Town's rural character and environmental quality.

Respondents indicated how supportive they would be for acquiring land for the following reasons:

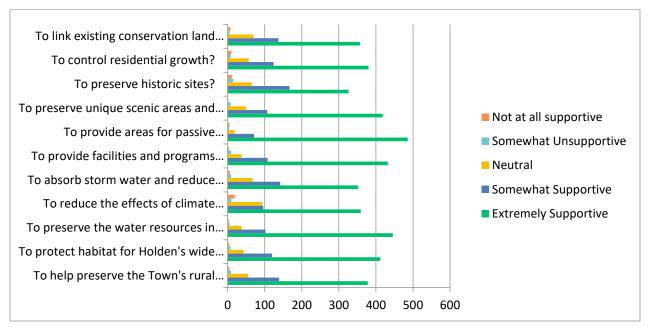


Figure 6. Holden Support for Acquiring Land for Open Space Protection and Interests.

Among some the most supported categories included acquiring land to protect water resources, preserve unique and scenic areas and vistas, and to protect wildlife habitat. Holden's primary resource protection need involves finding a way to protect as much land as possible by increasing Chapter 61 lands and those with other conservation restrictions, particularly in the

Core Habitat areas and in the watershed protection areas. The Holden Agricultural Commission has recently completed their evaluation of properties which someday might be released from enrollment in MGL Chapter 61, 61A, and 61B. This evaluation included a comprehensive review of every parcel (95 properties) enrolled in Chapter 61 in Holden. Each parcel's attributes and characteristics were evaluated by a team of Commission members, against a set of subjective standards in thirteen categories. Evaluator scores were averaged and then rank ordered to create a prioritized list of potential preservation candidates. A presentation was then created to collect and summarize the results of this extensive effort. This summary was presented to the Holden Town Manager, Assessor, Planning Board, Conservation Commission, and the Board of Selectman. Feedback indicated that each recipient thought the results and methodology had value and would possibly benefit others in the local land preservation community

Recommended strategies from the Open Space and Natural Resources section of the 2019 Master Plan to maintain the Town's character and environmental health include:

- Facilitating preservation of farmland through the state's APR program;
- Protecting rare landscape elements, such as wetlands, vernal pools, riparian zones (the areas along streams, rivers, and wetlands), state designated "priority habitats," BioMap2 areas, and large forested tracts;
- Retaining large contiguous or connected areas that provide habitat for a diversity of wildlife (Guidelines published by the Environmental Law Institute call for at least 20% to 50% of a town to be protected natural habitat. They also recommend 137 acres (55 hectares) as a minimum contiguous size for a natural area Environmental Law Institute, 2003):
- Protecting riparian buffers in order to preserve/improve water quality and wildlife habitat (The Environmental Law Institute recommends a 330- foot (100-meter) riparian buffer to provide for wildlife habitat functions. A 25-meter buffer will provide nutrient and pollutant removal and a 50- meter buffer will provide bank stabilization); and
- Minimizing the introduction and spread of invasive, non-native species (Many non-native species of plants and animals are known to disrupt the functioning of native ecosystems and contribute to a decrease in biodiversity

#### B. SUMMARY OF COMMUNITY'S NEEDS

The residents of Holden are fortunate to enjoy many open space and recreation resources. During the Walkshop, participants noted that they appreciate the plethora of hiking trails to allow for trail running, bird watching and wildlife viewing, and passive walking and hiking. However, there were also many suggestions for improvement.

The Town of Holden Recreation Department does not have exclusive use of a facility that houses a gymnasium (or something comparable in size with a wood floor) or larger meeting or program

space. Classes and programs could be run from early morning until 10:00 p.m. Many recreation programs around the country are seeing a surge in co-ed team sports, and high on the list of the most popular are dodge ball and kick ball. These recreation programs could be offered to the Town's adult population in the evenings in such a facility. Very popular and very much sought after "Mommy & Me" programs could be made available as well. The Recreation Department is in need of such an exclusive facility where it can conduct a variety of programs (even simply program registration) without threat of "getting bumped" for a user with higher priority.



Other open space and recreation needs highlighted by the community include improved opportunities for Holden's

underserved populations. According to the survey results, 15.55% of respondents were dissatisfied with the variety of existing recreational opportunities for aging adults. Another 18.32% of respondents were dissatisfied with the variety of existing recreational opportunities for children and teenagers. Playgrounds off school property, splash pads, a dog park, a walking track open to the public, bike lanes and bike trails, a lighted multi-use turf field, adult recreation sports leagues, and improvements at Eagle Lake Beach were all suggestions by the community to improve recreational opportunities for these special groups. An improved playground off of school property could provide a much-needed recreation opportunity for families with children who aren't school-aged yet, allowing for use during school hours. Bike

lanes, mountain biking trails, and a lighted multi-use turf field could provide recreational opportunities for teenagers, a group often missed when developing recreation opportunities for a community. And a walking track could provide aging adults with safe recreation and walking opportunities.

Table 24. Holden Fields Annual Use Per Field Usage Matrix.

HOLDEN FIELDS USAGE MATRIX Town of Holden, Massachusetts

Annual Use Per Field

Park/Facility	Field	Annual Hours of Use	Total Hours of Use Per Site
Mountview Middle	Field A	603	
School School	Field B	1177	2709
SCHOOL	Field C	929	
Jefferson	Jefferson Field	575	575
Bubar	Bubar Field	840	840
	Field 1	651	
Davis Hill	Field 2	651	
Elementary School	Field 3	476	2597
Elementary Corloca	Softball Field 1	819	
	Softball Field 2	0	
Dawson Elementary School	Field A	607	1236
SCHOOL	Field B	629	
Mayo Elementary	Field 1	1029	1653
School	Field 2	624	1633
Light Department	Light Department Light Department Field		319
Rice School	Rice Field	440	440
Holden Recreation Center	Recreation Field	420	420

Trout Brook Field

Trout Brook

Recommendations from the Natural Resources Section of the 2019 Master Plan include:

- Developing a systematic approach to ensuring high quality and plentiful open space and recreation opportunities;
- Continuing actions that enable the Town to acquire and fund open space and recreation opportunities;
- Maximizing wildlife habitats and increasing wildlife biodiversity through an expansion of properties used for open space;
- Expanding recreation areas to provide adequate access and use for all populations;
- Developing a system to monitor the maintenance and upgrade needs of open space and recreation facilities;
- Improving natural resource management strategies to make Holden more resilient;
- Regularly engaging with Holden residents on topics related to the environment to encourage conservation and public support; and
- Increasing interactions with Holden residents to promote sustainable use of open space and recreation areas in Town.

The assessment of recreation needs for the Town of Holden in this Open Space and Recreation Plan are not just local in nature. In 2017, the Commonwealth of Massachusetts updated the Massachusetts Statewide Comprehensive Outdoor Recreation Plan (SCORP) which was submitted to the National Park Service by the Executive Office of Energy and Environmental Affairs (EEA). The SCORP is a planning tool that looks at open space and recreation from a regional perspective. The purpose of the plan is to help direct the best investment of funds and effort towards protection and enhancing recreation resources.

The Town of Holden is located in the Central Region, which is characterized by population growth driven by residential, commercial, business, and light industrial development. Given this, residents from more populated towns and cities near the region have been drawn to Holden to take advantage of its rural and semi-rural character, along with its close proximity to Worcester. As the regional population centers continue to grow, Holden's recreational amenities may need to be expanded in response to the increase of regional demand. Regional recreational facilities, such as the Mass Central Rail Trail, have grown in popularity recently. As part of the planning process for the SCORP, a regional meeting was hosted by CMRPC to understand the assets and challenges of open space and recreation in the Central Region. Demand for recreational amenities included bikeways connecting to existing paths, small boat launches, and more accessible trails, parks, playgrounds, and open spaces. The goals of the SCORP are:

- 1. Provide access for underserved populations
- 2. Support the Statewide Trails Initiative
- 3. Increase the availability of water-based recreation
- 4. Support the creation and renovation of neighborhood parks



Holden Youth Soccer Association is a non-profit organization that offers all children, ages four through 18, the opportunity to enjoy the game of soccer and improve their skills. The mission if HYS is to foster a passion for soccer in children. They aim to accomplish this by creating an enjoyable, supportive, and highly productive environment at practices and games. At practices they use fun activities that maximize repetitions of key skills, and they provide ample time for scrimmaging. HYS looks to teach by reinforcing the positive versus calling out the negative. At games, they provide lots of playing time for all players, and allow the players to play with minimal instruction, so that they can feel empowered to make their own decisions and take risks on the field.

By providing a positive experience and helping kids develop their skills, HYS hopes to encourage kids to keep playing and enjoying soccer-a game that provides a lot of exercise, independent thinking, mental and physical challenges, collaboration, socialization, and-most importantly-fun!

On average HYS has over 800 players per season, on over 100 Holden Youth Soccer teams lead by just as many volunteer coaches. They make available custom tailored, age and ability appropriate practice plans to their coaches to ensure that every coach has the tools necessary to provide a great soccer experience for all.

HYS also prides itself on being an inclusive, diverse, and caring pillar in the community. For example, they also:

- Raise funds for those in need, such as purchasing a wheelchair lift for one of their families in need, or donating to the Josh Thibodeau Helping Hearts Foundation.
- Award annual scholarships to graduating HS players/volunteers who have contributed in impactful ways to the lives of others.
- Run the HYS Mentorship Program whereby they partner 8th grade mentors with 5th grade mentees to bond over soccer, but also the transition each are making to larger schools.
- Routinely have older players coach the teams of younger players serving as role models in the process.
- HYS Day of Caring where players go out into the community to assist with trail clean up, picking up litter, painting public structures, etc.
- Participate in the Memorial Day Parade.

In all, and while soccer is certainly their passion and main focus, HYS is more than \*just\* soccer, It is a player-centered environment that focuses on developing skills that will also transcend the field, creating positive experiences along the way, and building the self-confidence and leadership skills as players become young men and women.







### C. MANAGEMENT NEEDS, POTENTIAL CHANGE OF USE

Ensuring that this Open Space and Recreation Plan will not sit on a shelf will be key to achieving the goals and objectives. Thus, it is imperative that the Town of Holden specifically designate an entity or board to be in charge of implementing the recommendations found in the Action Plan. Ideally, such an entity should continue the work of the Open Space Committee as a standing committee of the Town, appointed by the Board of Selectmen. This committee would be responsible for overseeing the implementation of the Plan, along with public outreach and education on its significance.

Given the small staff at Town Hall it is important that these committees and commissions continue to function, recognizing the volunteer nature of their memberships. The need for volunteers is increasingly important and it is the role of the committee overseeing the plan's implementation to encourage and excite the local community, educating them on the importance of open space and recreation resources in Holden. The Action Plan assigns responsibility for various action items to appropriate stakeholders in order to ensure they are carried out.

The Town of Holden must be judicious in its use of funds. The current fiscal situation of the State is likely to result in fewer resources for the purposes of open space protection and recreation. Identification of funding and staffing resources will be key elements of the Town's strategy for open space acquisition and upgrading of recreation facilities. Should the Town of Holden purchase land currently classified as agricultural under Chapter 61A, it is probable that the land would instead be used for conservation or recreation purposes. Thus, the land would technically undergo a change in use. However, there is little likelihood of other changes in use.

Review of private open space land holdings for suitability as future recreation land sites must consider continuing residential growth and locational needs in Holden. As indicated in the background information section of this plan, Holden is undergoing continuing residential development which is consuming open space. Associated population growth further increases demand for recreational opportunities.



**GOALS AND OBJECTIVES** 

8

In addition to the broad and overarching vision presented in Section 6 and the analysis of needs in Section 7, the Open Space Committee, residents, and stakeholders worked together to develop specific goals and objectives for the Open Space and Recreation Plan. These goals are long-range aspirations and are accompanied by a set of objectives that should lead to the goal's successful completion. More specific and tangible action items for these objectives will be described in Section 9.

The following is a set of goals and objectives for the 2021 Open Space and Recreation Plan for the Town of Holden to guide the next seven years:

GOAL 1: Preserve Open Space and Natural Areas in Holden, Including Water, Agricultural, Wildlife, Wetlands, Scenic Vistas, Unique Natural Areas, Historical Sites, and Cultural Resources

- 1. Protect historic, cultural, and aesthetically valuable resources in Town
- 2. Protect wetlands, vernal pools, riparian zones, water resources, and rare wildlife habitat
- 3. Foster community participation and collaboration in conservation and preservation efforts
- 4. Encourage eco-friendly and low impact development to preserve green spaces in Town
- 5. Preserve farmlands, forested areas, and the agricultural industry

#### GOAL 2: Provide Active Recreation Resources and Facilities in Holden

- 1. Preserve, maintain, and upgrade existing fields, parks, and recreational facilities
- 2. Expand active recreation opportunities by developing new active recreation fields and facilities to meet expanding youth and adult needs in Town
- 3. Promote tourism to the Town by establishing events and advertisements for sports, cultural, and historical resources/facilities

#### **GOAL 3: Promote Passive Recreation and Open Space Resources**

- 1. Expand on or improve passive recreation and open space opportunities in Town
- 2. Increase utilization and awareness of open space and passive recreation resources
- 3. Promote and maintain greenways including nature trails, bike trails, hiking areas, and cross-country ski trail areas on open space/conservation parcels

#### GOAL 4: Develop and Implement Funding Sources and Partnerships

- 1. Explore funding options from private stakeholders
- 2. Utilize existing funding and grant programs
- 3. Develop partnerships with local and regional organizations



**SEVEN-YEAR ACTION PLAN** 

9

Open space and recreation planning strategies must reflect long range trends. Today's policy makers face fluctuating resources regarding open space land acquisition, and land and facilities maintenance, upgrading, and utilization policies. Economic initiatives at all levels of government dictate the success of efforts to maintain open space and recreation facilities for the Town's future generations.

Since the previous iteration of the Open Space and Recreation Plan, the Town has made some benchmark improvements:

- 1. The Agricultural Commission has established a formal process for review of all parcels proposed tor removal from Chapter 61 protections. This process ensures that all Town Boards and Commissions get an opportunity to review each parcel and consider it's potential for town use or preservation. This process also invites qualified state agencies and land protection trusts to review the parcels for potential preservation and protection. All these reviews are accomplished before the Board of Selectmen decides whether to release or assign their first right of refusal option.
- 2. A Cluster Development Bylaw was established to promote the preservation of green spaces in residential and commercial development.
- 3. An Erosion Control Bylaw was established with thresholds for filings with certain slopes in order to preserve views and reduce runoff.
- 4. The Town continues to support the Wachusett Greenways by allocating a small portion of funding to maintain the organization.
- 5. Received a Land and Water Conservation Fund grant with matching funds provided by the Greater Worcester Land Trust and the White Oak Land Trust to purchase the Holbrook Property. This land acquisition created a 400-acre greenway corridor between the City of Worcester and Holden and provided a public access point on Salisbury Street.
- 6. In 2015 the Town established an Open Space Preservation Fund. Each year the Town budget allocates money to this ongoing Stabilization Fund so that it can grow large enough to be a valuable tool for Open Space preservation. In 2020 money was allocated from this fund, by Town Meeting, for the purchase of two large, forested parcels for preservation.

This Open Space and Recreation Plan builds on the previous action plan developed in the 2012 Plan, and incorporates the ideas and feedback gathered during this planning process. The Seven-Year Action Program and the action strategies outlined below are intended to guide the Town, its officials, and committees in carrying out open space and recreation land management practices. Successful implementation and completion of any or all of these strategies is contingent upon sufficient availability of funding and staffing levels in the appropriate department, board or commission assumed to be responsible for each individual strategy.

Likewise, projected time frames may need to be adjusted accordingly as a result of changes in resource or staff availability. The matrix on the following pages outlines action steps, time frames, responsible and possible assisting parties to help meet the associated objectives and goals.

Table 25. Town of Holden OSRP Seven-Year Action Plan.

	GOAL 1: Preserve Open Space and Natural Areas in Holden, Including Water, Agricultural, Wildlife, Wetlands, Scenic Vistas, Unique Natural Areas, Historical Sites, and Cultural Resources						
#	Objective	Action	Responsible Party	Priority	Timing	Funding Source	
1.1		Research and identify historical sites in Town that need to be preserved	Historic Commission	Low	Ongoing	Town Staff LAND Grants	
	Protect historic, cultural, and aesthetically valuable resources in Town	Determine whether to repair the dam to preserve Eagle Lake OR remove the dam to restore the natural habitat	Board of Selectmen	High	Short	Town Staff MVP Action Grant Land and Water Conservation Fund	
		Map historical and cultural resources in Town	Historic Commission Historic District Commission	Low	Ongoing	Town Staff CMRPC Services	
		Advertise historic and cultural resources to residents	Historic Commission	Low	Ongoing	Town Staff	
1.2	Protect wetlands, vernal pools, riparian zones, water resources, and rare wildlife habitat	Continue to identify, map, and protect vernal pools and other critical wildlife resources	Conservation Commission	Low	Ongoing	Town Staff MVP Action Grant CMRPC Services	
		Develop an education campaign to inform residents of invasive species, how to identify them, and how to safely remove them	Agricultural Commission	Medium	Ongoing	Town Staff MVP Action Grant Assistance from DCR and/or Worcester County Conservation District	
		Continue to uphold the Wetlands Protection Act and wetland bylaws	Conservation Commission	Low	Ongoing	Town Staff	

	industry	of locally produced foods  Enact a Bylaw to retain a specified amount of forested area and limit clear cutting	Board of Selectmen Planning Board	High	Short	Conservation Fund  Town Staff
1.4	Preserve farmlands, forested areas, and the agricultural	Establish a curriculum in local schools about local farms, agriculture, and the benefits	Agricultural Commission School Committee	Low	Ongoing	Town Staff MVP Action Grant Land and Water
		Identify active and inactive agricultural parcels and promote continued/renewed productive agricultural usage	Agricultural Commission	Medium	Short	Town Staff LAND Grants MVP Action Grant
participation an collaboration in	enorts	Continue working with and supporting local land trusts	Agricultural Commission Conservation Commission	High	Ongoing	Town Staff Assistance from White Oak, GWLT, Mass Audubon, and/or the Trustees of Reservation
	collaboration in conservation and preservation	Continue utilzing a scoring sheet to evaluate usefullness of lands for acquisition	Agricultural Commission Conservation Commission	Low	Ongoing	Town Staff Assistance from White Oak
	Foster community	Establish an education campaign to inform and encourage residents to utilize Chapter 61, 61A, and 61B programs, Conservation Restrictions, and Agricultural Preservation Restrictions	Agricultural Commission	High	Ongoing	Town StaffMVP Action GrantAssistance fron White Oak

#	Objective	Action	Responsible Party	Priority	Timing	Funding Source
	Preserve, maintain, and upgrade existing fields,	Develop a maintenance plan for existing parks and sports fields	Recreation Department DPW	High	Ongoing	Town Staff
2.1	parks and recreational facilities	Upgrade the playground at Eagle Lake and make it handicap accessible	Recreation DepartmentDPW	High	Short	Town Staff  Town StaffPARC GrantADA Improvement Grant  Town Staff PARC Grant Assistance from Holden Youth Soccer Town Staff PARC Grant  Town Staff  Town Staff
		Strategize plan to construct a turf field with lights and covered or indoor elements	Recreation Department Board of Selectmen	High	Medium	PARC Grant Assistance from
		Construct a futsal court with lines for pickleball	Recreation Department	Medium	Short	
	Expand active recreation opportunities by developing new	Establish more adult sports and rec leagues such as dodgeball, kickball, women's softball, and running groups	Recreation Department	High	Short	Town Staff
2.2	active recreation fields and facilities to meet expanding youth and adult needs in Town	Work with Holden Youth Soccer league for construction of the soccer fields that were permitted abutting Mayo School	Recreation Department	High	Short	Town Staff
		Work with Holden Youth Baseball League to determine feasibility of constructing the permitted new baseball field at the Chaffins Recreation Area	Recreation Department	High	Short	Town Staff

		Construct a skate park and/or ice skating rink	Recreation Department Town Manager	High	Medium	Town Staff PARC Grant
	Promote tourism to the Town by establishing events and advertisements for sports, cultural, and historical resources/facilities	Establish an annual tennis tournament	Recreation Department	Medium	Short	Town Staff
2.3		Develop informational materials regarding the facilities and fields available to rent	Recreation Department	High	Ongoing	Town Staff Planning Assistance Grant
		Create an online calendar that shows availabiliy of rental facilities and allows online reservations	Recreation Department	Medium	Ongoing	Town Staff

# **GOAL 3: Promote Passive Recreation and Open Space Resources**

#	Objective	Action	Responsible Party	Priority	Timing	Funding Source
	Expand on or improve passive recreation and open space opportunities in	Construct a dog park	Recreation Department	High	Short	Town Staff PARC Grant
		Install nature viewing blinds at appropriate locations around Town	Recreation Department	Medium	Short	Town Staff
3.1		Install a fee-for-use kayak rack at appropriate locations around Town	Recreation Department	Low	Long	Town Staff
		Investigate the possibility of installing a hunting blind in Town	Recreation Department	Medium	Short	

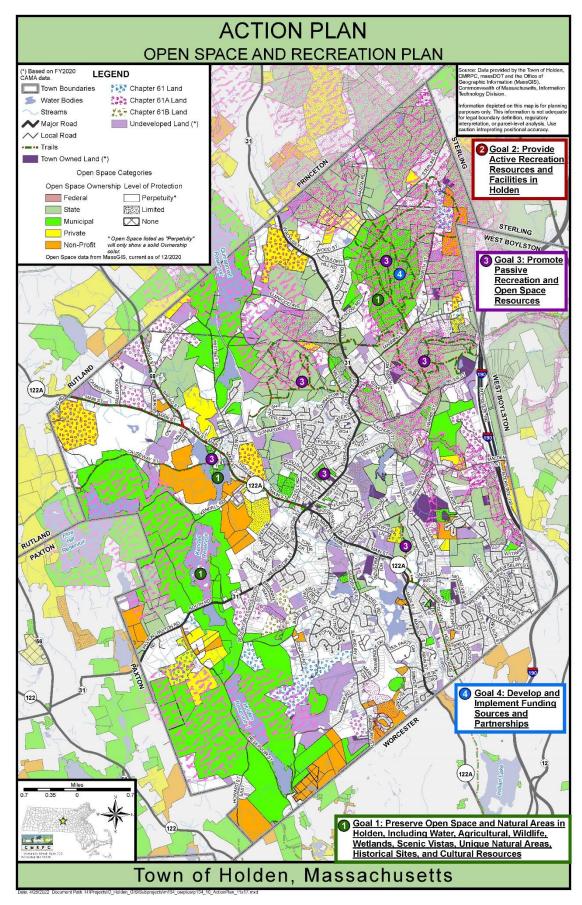
		Appoint an Implementation Committee or a standing Open Space Committee to ensure the implementation of the goals in this plan	Board of Selectmen	High	Short	Town Staff
		Continue to support the goals of, work cooperatively with, and promote the activities of the Holden Community Garden	Conservation Commission	High	Ongoing	Town Staff
		Install an information kiosk at Trout Brook	Conservation Commission	Medium	Short	Town Staff MassTrails Grant Land and Water Conservation Fund
3.2	Increase utiliation and awareness of open space and passive recreation resources	Work with schools, Boy Scouts, and Girl Scouts to improve recreation and open space resources	Conservation Commission	Medium	Ongoing	Town Staff
		Utilize the Town website, social media, newletters, and alerts to advertise open space and recreation resources/events	Town Manager	Medium	Short	Town Staff Planning Assistance Grants
3.3	Promote and maintain greenways including nature trails, bike trails,	Develop a Town-wide Trail Connection Plan	Recreation Department	Medium	Medium	Town Staff MassTrails Grant CMRPC Services Land and Water Conservation Fund

#	Objective	Action	Responsible Party	Priority	Timing	Funding Source		
GOAL 4	GOAL 4: Develop and Implement Funding Sources and Partnerships							
		Develop dedicated cross- country skiing trails	Recreation Department	Low	Short	Town Staff MassTrails Grant Land and Water Conservation Fund		
		Construct a walking track with fitness circuit stations surrounding the walking area	Board of SelectmenRecreation Department	Medium	Medium	Town StaffMassTrails GrantLand and Water Conservation Fund		
		Install trail markings and signage to existing trail systems where necessary	Conservation Commission	High	Short	Town Staff MassTrails Grant Land and Water Conservation Fund		
		Create a comprehensive trail brochure identifying access points, trail connections, and types of trail systems	Recreation Department	High	Short	Town Staff CMRPC Services MassTrails Grant		
		Continue to support the Wachusett Greenways	Town Manager Finance Committee	Low	Ongoing	Town Staff		
5	parcels	Investigate the possibility of removing the dog restriction along the Holden side of the Rail Trail	Recreation Department	High	Short	Town Staff		
	hiking areas, and cross-country ski rail areas on open pace/conservation	Improve and expand bike trails and on-road bike lanes	Recreation Department	Medium	Long	Town Staff Planning Assistance Grants		

		Encourage private monetary gifts or donations of land	Board of Selectmen	Low	Ongoing	Town Staff
	Explore funding	Seek donations of services to support the ideas in this action plan	Board of Selectmen Conservation Commission Recreation Department Agricultural Commission	Medium	Ongoing	Town Staff
4.1	ontions from	Encourage private landowners to put land under a Conservation Restriction or Agricultural Preservation Restriction	Conservation Commission Agricultural Commission	Medium	Ongoing	Town Staff Planning Assistance Grants
		Utilize Town events and tourism activities to bring in donations to the Town	Board of Selectmen	Medium	Ongoing	Town Staff
		Encourage self-supporting and income-generating strategies through fee for service programs	Board of Selectmen Recreation Department	Medium	Ongoing	Town Staff Planning Assistance Grants
		Install a "For Rent" sign at Trout Brook	Recreation Department	Low	Short	Town Staff
4.2	Utilize existing funding and grant programs	Utilize creative conservation developments to fund preservation	Board of SelectmenPlanning BoardConservation Commission	Low	Ongoing	Town Staff
		Research Division of Conservation Services grant programs and identify which action items in this plan might qualify for funding	Recreation Department Conservation Commission Board of Selectmen	Medium	Short	Town Staff CMRPC Services

2021

		Research other State and Federal grant programs and identify which action items in this plan might qualify for funding	Recreation Department Conservation Commission Board of Selectmen	Medium	Short	Town Staff CMRPC Services
		Establish an Infrastructure Investment Fund	Board of Selectmen	Low	Short	Town Staff
4.4	Develop partnerships with local and regional organizations	Increase partnership with GWLT and White Oak	Recreation Department	High	Ongoing	Town Staff Assistance from GWLT and White Oak
		Explore partnership with Chaffin's Recreation Association	Recreation Department	Medium	Short	Town Staff Assistance from Chaffin's Recreation Association
		Research and take advantage of Regional Sharing initiatives	Board of Selectmen	Medium	Short	Town Staff CMRPC Services
		Develop a partnership with local schools and youth groups to aid in Town projects	Board of Selectmen Recreation Department	High	Ongoing	Town Staff





PUBLIC COMMENTS 1 U

The Town of Holden's Open Space and Recreation Committee sought approval for this plan from the Planning Board, Board of Selectmen, the Central Massachusetts Regional Planning Commission, and the White Oak Land Conservation Society. Letters of support from these boards and organizations are included on the following pages.



#### Pamela Harding Director

# TOWN OF HOLDEN MASSACHUSETTS

HOLDEN PLANNING BOARD

March 21, 2022

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

Re: Holden Open Space and Recreation Plan 2021 Update

Dear Ms. Cryan,

I am writing to express the Holden Planning Board's support of the Town of Holden's 2021 Open Space and Recreation Plan. On November 23, 2021 the Open Space and Recreation Committee gave the Holden Planning Board a presentation of the year long process undertaken to update the 2012 Open Space and Recreation Plan. The Holden Planning Board was impressed of the Committee's creativity to conduct public outreach utilizing online surveys and outdoor walkshop events that were carefully planned to accommodate restrictions during the COVID-19 pandemic.

The Holden Planning Board was in unanimous support of the plan particularly the goals and objectives and look forward to being involved in the Plan's implementation over the next seven years. If you have any questions or require additional information please contact Pamela Harding, Director of Planning and Development at (508) 210-5541.

Sincerely,

Scott Carlson, Chair Holden Planning Board



# TOWN OF HOLDEN MASSACHUSETTS OFFICE OF THE TOWN MANAGER

April 25, 2022

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

Re: Holden Open Space and Recreation Plan 2021 Update

Dear Ms. Cryan,

I am writing to express the Holden Board of Selectmen's support of the Town of Holden's 2021 Open Space and Recreation Plan. On December 6, 2021 the Open Space and Recreation Committee gave the Board a presentation of the year long process undertaken to update the 2012 Open Space and Recreation Plan. The Board was impressed by the Committee's creativity to conduct public outreach utilizing online surveys and outdoor walkshop events that were carefully planned to accommodate restrictions during the COVID-19 pandemic. This outreach was a vital component in achieving the Board of Selectmen's goals to advance the recreational opportunities for all demographics in the Town.

The Selectboard Board was in unanimous support of the plan, and look forward to being involved in the Plan's implementation over the next seven years. If you have any questions or require additional information please contact Pamela Harding, Director of Planning and Development at (508) 210-5541.

Sincerely,

Chiara Barnes Board of Selectmen, Chairman



1 Mercantile Street – Suite 520 Worcester, MA 01608 508.756.7717 P 508.792.6818 F www.cmrpc.org

Melissa Cryan Division of Conservation Services Executive Office of Energy and Environmental Affairs 100 Cambridge St., Ste. 900 Boston, MA 02114

May 1, 2022

RE: Town of Holden 2021 Open Space and Recreation Plan

Dear Ms. Cryan;

The Central Massachusetts Regional Planning Commission (CMRPC) is writing this letter in support of the Town of Holden and its recently completed <u>2021 Open Space & Recreation Plan</u>. The Town and its Open Space Committee (Committee) are to be commended for their hard work putting this Plan together.

The Committee and its consultant, the CMRPC, have done a very thorough job and the final document appears compliant with the standards for such plans as promulgated by your office. This plan highlights how Holden continues to be a desirable place to live and examines the demand and pressures associated with residential development. Holden has recognized the need to balance new development with the need to protect open space and enhance recreation opportunities. In particular, this Plan documents the continued public interest and municipal action to create a safe and comfortable environment for walkers, runners, and bikers. Additionally, this Plan acknowledges the public's desire to the preserve Holden's natural resources, improve its water supply, protect and promote its agriculture, and provide recreation opportunities for all demographics.

Holden's Open Space and Recreation Plan will provide the Town with the specific guidance and action steps needed to accomplish its goals and objectives. These goals and objectives, which have been informed by significant community input, are clearly laid out in this plan. This Plan also recognizes the need for partnerships with public and private entities to make its goals and objectives a reality. To this end, several local groups, such as land trusts and private land owners, are included in the plan and referenced in several objectives. Many of these partnerships are currently being pursued by the Conservation Commission, Planning Board, and Board of Selectmen.

Please consider this letter to be a demonstration of CMRPC's support for the Plan and the process used to develop it. The Town of Holden will be well-served by having a State-approved Open Space and Recreation Plan in order to plan for its recreation facilities and programs, as well as to preserve and protect its valuable open spaces and natural resources.

Sincerely,

Dani Marini

Associate Environmental Planner

Central Massachusetts Regional Planning Commission

#### WHITE OAK LAND CONSERVATION SOCIETY



POST OFFICE BOX 346, HOLDEN, MASSACHUSETTS 01520
TELEPHONE 1-774-345-9658
INFO@WHITEOAKTRUST.ORG ❖ WWW.WHITEOAKTRUST.ORG

March 18, 2022

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

RE: Town of Holden Open Space and Recreation Plan

Dear Melissa Cryan:

White Oak Land Conservation Society Inc. ("WOLCS") is a non-profit land trust in Holden, MA. We write to the Division of Conservation Services in support of the proposed update to the Town of Holden Open Space and Recreation Plan (OSRP). The OSRP's goals are consistent with those of WOLCS and will continue to foster collaboration among the Town, local non-profits and others in promoting protection and utilization of open space and healthy activities for all residents of Holden and the surrounding communities.

We urge the Division of Conservation Services to endorse the Town of Holden's OSRP and thereby assist in the ongoing collaborative efforts for the benefit of the community.

For the White Oak Land Conservation Society Board:

Paul J. McManus

Treasurer

pmcmanus@ecotecinc.com

Scott M. Morrison

Vice president

smorrison@ecotecinc.com



REFERENCES

BioMap and Living Waters: Guiding Land Conservation for Biodiversity in Massachusetts - Core Habitats of Holden; Produced by Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries and Wildlife, Executive Office of Environmental Affairs, Commonwealth of Massachusetts, 2012

Blackstone River Watershed Action Plan (July 2001, MA-DEP)

Central Massachusetts Regional Planning Commission, Build-out Analysis for Holden, 2001.

Central Massachusetts Regional Planning Commission, Intercommunity Trail Connection Feasibility Study - CMRPC North Subregion, 2004.

Central Massachusetts Regional Planning Commission (CMRPC) 2003 Regional Transportation Plan

Charles J. Fausold and Robert J. Lilieholm, The Economic Value of Open Space: A Review and Synthesis, a Lincoln Institute of Land Policy Research Paper [Cambridge, MA], 1996.

Duerksen, Christopher J. et al. Habitat Protection Planning: Where the Wild Things Are. APA Planning Advisory Service Report #470/471, Chicago, IL, 1997.

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Executive Office of Environmental Affairs (EOEA) and the Department of Environmental Protection (DEP), A TMDL Alternative Regulatory Pathway Proposal for the Management of Selected Mercury-Impaired Waters, 2004.

Executive Office of Environmental Affairs (EOEA) and the Department of Environmental Protection (DEP), Draft Total Maximum Daily Loads of Total Phosphorus for Quaboag Pond & Quacumquasit Pond, 2005.

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Girls Inc. of Worcester http://www.girlsincworcester.org/facilities-rental

Holden Hills Country Club http://www.holdenhillsgolf.com/index.htm

Holden Tomorrow, final draft, Master Plan, May 2008. Holden Towers Tennis Club http://www.httennis.net/

Mass Audubon website

http://www.massaudubon.org/Nature\_Connection/Sanctuaries/Eagle\_Lake/index.php

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Massachusetts Statewide Comprehensive Outdoor Recreation Plan, EOEA Division of Conservation Services. 2004.

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Central Massachusetts Regional Planning Commission, 2020 Growth Strategy for Central Massachusetts, 2002.

- National Recreation and Parks Association and the American Academy for Park and Recreation Administration, Park, Recreation, Open Space and Greenway Guidelines, 1996.
- National Rifle Association http://www.nrahq.org/shootingrange/findlocal.asp?State=MA
- Natural Heritage and Endangered Species Program within the Division of Fisheries and Wildlife, Classification of the Natural Communities of Massachusetts, 2001.
- Nimrod League of Holden website, <a href="http://www.nimrodleague.org/">http://www.nimrodleague.org/</a> Massachusetts Department of Community Development (DHCD) Community Profile of Holden, MA, 2000. Open Space And Recreation Plan Requirements, Executive Office of Environmental Affairs, Division of Conservation Services, 2001
- Report of Town Officers, Town of Holden, Massachusetts, Year Ending December 31, 2006
- Small, Stephen J. Esq., Preserving Family Lands: A Landowner's Introduction to Tax Issues and other Considerations.
- State of Massachusetts Departmental Websites: EOEEA, DCR, DEM, DEP, DFWLE and DFA.
- The Open Space Planner's Workbook, Executive Office of Environmental Affairs, Division of Conservation Services, 2001
- The Trust for Public Lands, Community Choices: Thinking through Land Conservation, Development, and Property Taxes in Massachusetts, 1998.
- USDA Natural Resource Conservation Service (NRCS), Soil Survey of Worcester County, Massachusetts Southern Part, 1992.
- A joint study by the Soil Conservation Service (SCS) of the U.S. Department of Agriculture (USDA) and the Central Massachusetts Regional Planning Commission (CMRPC)
- Wachusett Reservoir Watershed MDC/DWM Land Management Plan 2001-2010



Tuesday, January 5, 2021 Remote Meeting via Zoom 6:00 pm

This meeting will be held remotely and will be accessible to the public. To access the meeting, either follow the link or dial in over the phone.

Meeting Link: https://us02web.zoom.us/j/81542936486?pwd=ZWcyVDRrejh1ZCt1U01RdGN3UkdlQT09

Meeting ID: 815 4293 6486

Passcode: 959845

Dial-in Number: 1-646-558-8656

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15,2020 Order imposing strict limitations on the number of people that may gather in one place, this meeting of the Open Space Committee is being conducted via remote participation. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings as provided for in the Order.

- 1. Introductions
- 2. Plan Purpose
- 3. Review of Plan Requirements
- 4. Process/Roles/Expectations
- 5. Timeline
  - a. Meeting Dates
  - b. Survey
  - c. Public Forum
  - d. Trail Mapping
- 6. Goals and Objectives
- 7. Next Steps
- 8. Adjourn

Tuesday, January 19, 2021 Remote Meeting via Zoom 6:00 pm

This meeting will be held remotely and will be accessible to the public. To access the meeting, either follow the link or dial in over the phone.

Meeting Link: https://us02web.zoom.us/j/87655105730?pwd=VHJPNndpQTBuSWZBaWFPVjZoUnpSQT09

Meeting ID: 876 5510 5730

Passcode: 090869

Dial-in Number: 1-646-558-8656

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15,2020 Order imposing strict limitations on the number of people that may gather in one place, this meeting of the Open Space Committee is being conducted via remote participation. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings as provided for in the Order.

- 1. Officer Appointments
  - a. Chair
  - b. Vice Chair
  - c. Secretary
- 2. Approval of January 5, 2021 Meeting Minutes
- 3. Survey Discussion
  - a. Comments/Edits, Final Approval
  - b. Survey Promotion
- 4. Next Steps
  - a. OneDrive Folder
  - b. Trail Mapping
  - c. ADA Self-Evaluation
- 5. Adjourn

Monday, February 8, 2021 Remote Meeting via Zoom 6:00 pm

This meeting will be held remotely and will be accessible to the public. To access the meeting, either follow the link or dial in over the phone.

Meeting Link: <a href="https://us02web.zoom.us/j/81353235018?pwd=ZWg0T09JU3g2K0lGdm9ocXo1S09hdz09">https://us02web.zoom.us/j/81353235018?pwd=ZWg0T09JU3g2K0lGdm9ocXo1S09hdz09</a>

Meeting ID: 813 5323 5018

Passcode: 520625

Dial-in Number: 1-646-558-8656

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15,2020 Order imposing strict limitations on the number of people that may gather in one place, this meeting of the Open Space Committee is being conducted via remote participation. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings as provided for in the Order.

- 1. Approval of January 19, 2021 Meeting Minutes
- 2. Community Survey
- 3. OSRP Goals
- 4. Public Forum
- 5. Next Steps
- 6. Next Meeting
- 7. Adjourn

Tuesday, March 2, 2021 Remote Meeting via Zoom 6:00 pm

This meeting will be held remotely and will be accessible to the public. To access the meeting, either follow the link or dial in over the phone.

#### Meeting Link:

https://us02web.zoom.us/j/87148837359?pwd=UEFWdUw5QWc4SDhaeU0wMHIwY0M1UT09

Meeting ID: 871 4883 7359

Passcode: 423992

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15, 2020 Order imposing strict limitations on the number of people that may gather in one place, this meeting of the Open Space Committee is being conducted via remote participation. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings as provided for in the Order.

- 1. Approval of February 8, 2021 Meeting Minutes
- 2. Community Survey Extended through March 7<sup>th</sup>
- 3. Goals
- 4. Objectives
- 5. Trails
- 6. Public Forum Late April/Early May
- 7. Next Steps
- 8. Next Meeting Review of Community Survey Results
- 9. Adjourn

#### Town of Holden Open Space Committee

Monday, April 12, 2021 Remote Meeting via Zoom 6:00 pm

This meeting will be held remotely and will be accessible to the public. To access the meeting, either follow the link or dial in over the phone.

Meeting Link: <a href="https://us02web.zoom.us/j/83540685969?pwd=TlFhZXFqbVB6SGVGbGQrWXNWSjl5UT09">https://us02web.zoom.us/j/83540685969?pwd=TlFhZXFqbVB6SGVGbGQrWXNWSjl5UT09</a>

Meeting ID: 835 4068 5969

Passcode: 527401

Dial-in Number: 1-646-558-8656

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15, 2020 Order imposing strict limitations on the number of people that may gather in one place, this meeting of the Open Space Committee is being conducted via remote participation. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings as provided for in the Order.

- 1. Approval of March 2, 2021 Meeting Minutes
- 2. Review of Community Survey Results
- 3. Next Steps
  - a. Trail Mapping
  - b. ADA Self-Assessment
  - c. Public Forum
- Next Meeting
- 5. Adjourn

#### Town of Holden Open Space Committee

Tuesday, May 4, 2021 Remote Meeting via Zoom 6:00 pm

This meeting will be held remotely and will be accessible to the public. To access the meeting, either follow the link or dial in over the phone.

Meeting Link: <a href="https://us02web.zoom.us/j/83836995328?pwd=YTdiOGJ6V2VBTUt1OGx6TUlkQ1ptZz09">https://us02web.zoom.us/j/83836995328?pwd=YTdiOGJ6V2VBTUt1OGx6TUlkQ1ptZz09</a>

Meeting ID: 838 3699 5328

Passcode: 194348

Dial-in Number: 1-646-558-8656

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15, 2020 Order imposing strict limitations on the number of people that may gather in one place, this meeting of the Open Space Committee is being conducted via remote participation. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings as provided for in the Order.

- 1. Approval of April 12, 2021 Meeting Minutes
- 2. Public Forum Planning
  - a. Date and Time
  - b. Location
  - c. Format
  - d. Food, Raffle, Photo Contest, etc.
- 3. Trail Mapping: Eagle Lake Trails, Eagle Lake Wildlife Sanctuary, Mill Street Loop, Holden Town Forest
- 4. ADA Self-Assessment Check-in
- 5. Next Steps: Review Draft Sections
- 6. Next Meeting
- 7. Adjourn

#### Town of Holden Open Space Committee

Tuesday, May 25, 2021 Remote Meeting via Zoom 5:00 pm

This meeting will be held remotely and will be accessible to the public. To access the meeting, either follow the link or dial in over the phone.

Meeting Link: <a href="https://us02web.zoom.us/j/85157985227?pwd=Ky9lOHILeCtOaTJ0cmplS3pYeTNGQT09">https://us02web.zoom.us/j/85157985227?pwd=Ky9lOHILeCtOaTJ0cmplS3pYeTNGQT09</a>

Meeting ID: 851 5798 5227

Passcode: 768268

Dial-in Number: 1-646-558-8656

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15, 2020 Order imposing strict limitations on the number of people that may gather in one place, this meeting of the Open Space Committee is being conducted via remote participation. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings as provided for in the Order.

- 1. Approval of May 4, 2021 Meeting Minutes
- 2. Public Forum Planning: Finalize Format
- 3. Trail Mapping: Schedule Site Visits
- 4. ADA Self-Assessment Check-in
- 5. Next Steps
- 6. Next Meeting
- 7. Adjourn

COMMITTEE NAME	<b>Open Space Committee</b>
DATE OF MEETING	Monday, July 19, 2021
TIME OF MEETING	6:00 PM
PLACE OF MEETING	Remote Meeting via ZOOM

#### THIS MEETING NOTICE MUST BE POSTED WITH THE TOWN CLERK AT LEAST 48 HOURS PRIOR TO MEETING

This notice submitted by:

Name

G. Williamson

#### Join Zoom Meeting

Meeting Link: https://us02web.zoom.us/j/87877081737?pwd=UzlIWnZjRkI1VGRFRndjRjg5a1NnUT09

**Meeting ID:** 878 7708 1737

Passcode: 585861

**Dial-in Number:** 1-646-558-8656

- 1. Approval of May 25, 2021 Meeting Minutes
- 2. Trail Mapping: Additional Trails to Map
- 3. Seven-Year Action Plan
  - a. Review Forum Results
  - b. Categorize Suggested Actions
- 4. Next Steps
  - a. Plan Review
  - b. Letters of Support
  - c. Submittal
- 5. Next Meeting
- 6. Adjourn

COMMITTEE NAME	<b>Open Space Committee</b>
DATE OF MEETING	Tuesday, October 5, 2021
TIME OF MEETING	6:00 PM
PLACE OF MEETING	Remote Meeting via ZOOM

#### THIS MEETING NOTICE MUST BE POSTED WITH THE TOWN CLERK AT LEAST 48 HOURS PRIOR TO THE MEETING

This notice submitted by:

Name G. Williamson

#### **Join Zoom Meeting**

Meeting Link: https://us02web.zoom.us/j/82546317236?pwd=UDg4b0FZTGtwYXU1cjd0N0VJbFU4dz09

Meeting ID: 825 4631 7236

Passcode: 624771

**Dial-in Number**: 1-646-558-8656

- 1. Approval of May 25, 2021 Meeting Minutes
- 2. Draft Plan Review
- 3. Photos
- 4. Spotlights
- 5. Letters of Support
- 6. Trail Mapping
- 7. Adjourn

COMMITTEE NAME	<b>Open Space Committee</b>
DATE OF MEETING	Thursday, November 18, 2021
TIME OF MEETING	6:00 PM
PLACE OF MEETING	Remote Meeting via ZOOM

#### THIS MEETING NOTICE MUST BE POSTED WITH THE TOWN CLERK AT LEAST 48 HOURS PRIOR TO THE MEETING

This notice submitted by:

Name G. Williamson

#### **Join Zoom Meeting**

Meeting Link: https://us02web.zoom.us/j/82209708758?pwd=dmpmWisxU3ZDUkhMdVMrWTBxRVMrUT09

Meeting ID: 822 0970 8758

Passcode: 794732

**Dial-in Number**: 1-646-558-8656

- 1. Approval of Meeting Minutes
- 2. OSRP Submittal Recap
- 3. OSRP Presentation Discussion
- 4. Letters of Support
- 5. Adjourn

COMMITTEE NAME	<b>Open Space Committee</b>
DATE OF MEETING	Tuesday, March 1, 2022
TIME OF MEETING	6:00 PM
PLACE OF MEETING	Remote Meeting via ZOOM

#### THIS MEETING NOTICE MUST BE POSTED WITH THE TOWN CLERK AT LEAST 48 HOURS PRIOR TO THE MEETING

This notice submitted by:

Name G. Williamson

#### **Join Zoom Meeting**

Meeting Link: https://us02web.zoom.us/j/81197255285?pwd=ZTg4N25MNXZ3WFILR3RKRFlzWFZsdz09

Meeting ID: 811 9725 5285

Passcode: 810764

**Dial-in Number**: 1-646-558-8656

- 1. OSRP Conditional Approval Letter Review
- 2. OSRP Re-Submittal Discussion
- 3. Letters of Support
- 4. Next Steps
- 5. Adjourn

#### Holden 2020 Open Space and Recreation Plan



#### Holden 2020 Open Space and Recreation Plan

Dear residents, visitors, and business owners,

Please help the Town of Holden update our Open Space and Recreation Plan (OSRP) by participating in this important survey. This survey is being conducted to understand the needs and concerns of Holden residents, visitors, and business owners regarding the Town's open space and recreation facilities. Your input will directly impact how the Town of Holden will manage open space and recreation resources, and will inform future projects that the Town hopes to pursue. An OSRP was last updated by the Town of Holden in 2012.

If you are interested in open space and recreation opportunities in Holden, please take a few minutes to answer the following survey questions. Responses for this survey will be anonymous and not attributed to individuals. Surveys must be completed by February 28, 2021. A public forum will be held in April to share the survey results and gather additional comments.

Sincerely, The Holden Open Space Committee

With staff support from The Central Massachusetts Regional Planning Commission (CMRPC)

For more information please contact: Glenda Williamson, Conservation Agent gwilliamson@holdenma.gov (508) 210-5535

### Holden 2020 Open Space and Recreation Plan Open Space and Recreation

1. How important is it to you to preserve open space and natural areas in Holden?

Not at all Important	Neutral	Very Important

2. How strongly do you support Holden protecting and/or acquiring land for the following reasons:

	Extremely Supportive	Fairly Supportive	Neutral	Slightly Supportive	Not at all supportive
To help preserve the Town's rural character and sense of place?	•	•	•	•	•
To protect habitat for Holden's wide diversity of flora and fauna (mammals, birds, reptiles, amphibians)?	•	•	•	•	•
To preserve the water resources in Town (groundwater, wetlands, surface waters)?	•	•	•	•	•
To reduce the effects of climate change?	•	•	•	•	•

	Extremely Supportive	Fairly Supportive	Neutral	Slightly Supportive	Not at all supportive
To absorb storm water and reduce the effects of flooding from extreme weather?	•	•	•	•	•
To provide facilities and programs for active recreation (sports, fields, courts, hunting and fishing programs, etc.)?	•	•	•	•	•
To provide areas for passive recreation (bird watching, walking, hiking, biking, etc.)?	•	•	•	•	•
To preserve unique scenic areas and vistas?	•	•	•	•	•
To preserve historic sites?	•	•	•	•	•
To control residential growth?	•	•	•	•	•
To link existing conservation land together to increase landscape connectivity, habitat space, and the ecological value of our open space?	•	•	•	•	•

	Yes	No
ote to allocate		
own funds for		
ne purpose of		
onserving open pace?		
olunteer to		
articipate on a own board or		
ssist a Town		
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romotes the		· · · · · · · · · · · · · · · · · · ·
reservation of		
pen space nd/or		
ecreation?		

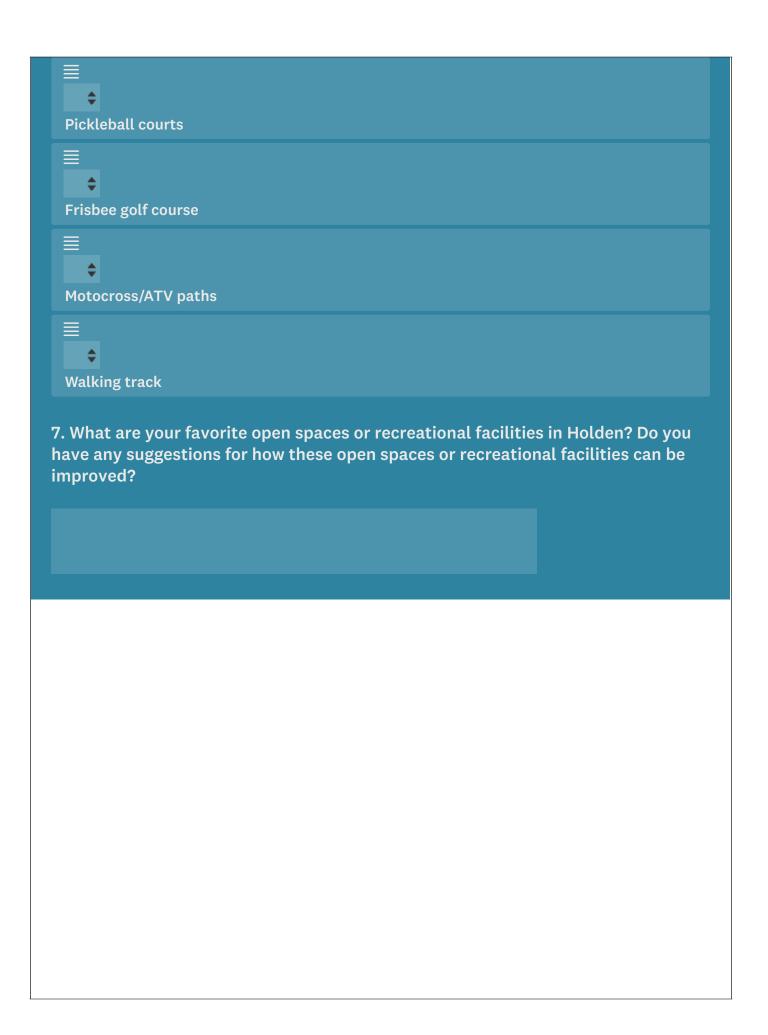
Please rank how important each of the following are from most (1) to least (9): Acquiring land for new public athletic fields. Improving existing athletic fields. Acquiring conservation lands for passive recreation use (e.g. trails). Improving passive recreation opportunities on existing conservation land. Improving/expanding wildlife habitat and corridors. Expanding/creating available parking at open space destinations. Expanding/creating available parking at recreational destinations. Expanding connections for walking (e.g. sidewalks, connecting trails) Expanding connections for biking (e.g. off-road paths, on-road lanes, and rail trails). 5. What do you consider to be the biggest unmet open space needs in Holden? Please rank the following from most needed (1) to least needed (10):

4. What should Holden's priorities be for open space and recreation expenditures?



6. What do you consider to be the biggest unmet recreation needs in Holden? Please rank the following from most needed (1) to least needed (14):







#### 8. How often do you go to a park or other open space in Holden to...

	Daily	Weekly	Monthly	Rarely	Never
Participate in or watch formal youth sports leagues?	•	•	•	•	•
Participate in or watch formal adult sports leagues?	•	•	•	•	•
Participate in an informal playgroup or pick up game?	•	•	•	•	•
Attend a special event at a park?	•	•	•	•	•
Utilize public play area/playground?	•	•	•	•	•
Utilize hiking, biking, or cross country ski trails?	•	•	•	•	•
Visit a park or other open space?	•	•	•	•	•
Walk or jog on a sidewalk or public way?	•	•	•	•	•
Bike on public streets or roadways?	•	•	•	•	•
Scooter or skateboard on public streets or roadways?	•	•	•	•	•

### 9. How important is it to be able to access open space and recreational destinations in Holden by:

	Extremely important	Fairly Important	Neutral	Slightly Important	Not at all important
Walking	•	•	•	•	•
Biking	•	•	•	•	•
Automobiles	•	•	•	•	•

#### 10. How satisfied are you with:

	Extremely Satisfied	Fairly Satisfied	Neutral	Slightly Satisfied	Not at all satisfied
The variety of existing recreational programs/opportunities for adults?	•	•	•	•	•
The variety of existing recreational programs/opportunities for children?	•	•	•	•	•
The variety of existing recreational programs/opportunities for the aging adults?	•	•	•	•	•
The variety of and/or condition of existing indoor recreational facilities?	•	•	•	•	•
The variety and/or condition of existing outdoor recreational facilities?	•	•	•	•	•
The amount and condition of existing trails/other passive recreation opportunities?	•	•	•	•	•
The amount and condition of existing sidewalks?	•	•	•	•	•

	Extremely Satisfied	Fairly Satisfied	Neutral	Slightly Satisfied	Not at all satisfied
The amount and condition of existing parking facilities at Holden's open spaces?	•	•	•	•	•
The amount, condition, and/or safety of bike paths?	•	•	•	•	•
The amount, condition, and/or safety of bike lanes within roadways?	•	•	•	•	•

11. Do you regularly travel to any other communities for open space and/or recreational opportunities? Please list community and the activity for which you travel there for.

12. How would you prefer to get information about open spaces and/or recreational opportunities and events in Holden?
School Community Bulletin or Listserve (email)
Public Bulletin Boards
Town website
Facebook
Other social media (Twitter, Instagram, etc.)
Information from community groups or athletic leagues
Flyers or signs around Town
Word-of-mouth
Local newspapers
Electronic sign boards in Town
Are there other sources of information you would like the Town to use (please specify)?

## Holden 2020 Open Space and Recreation Plan Demographics





18-24

25-34

35-44

45-54

55-64

**65-74** 

75-84

85+

14. Do you have children under the age of 18 living with you?

Yes

O No

15. What is your household size?

**1** 

**2** 

**3** 

**4** 

5 or more

16. V	Vhat is your gender identity?
•	Male
•	Female
•	Trans - female to male
•	Trans - male to female
•	Intersex
•	Prefer not to answer
•	Not listed above, please specify
17. V	What is your race/ethnicity? Please check all that apply.
	African American or Black
	American Indian or Alaska Native
	Asian or Asian American
	Hispanic or Latino
	Native Hawaiian or other Pacific Islander
	White or Caucasian
	Prefer not to answer
	Other (please specify)

18. What is the highest level of school you have completed or the highest degree you have received?	
<ul><li>Less than high school diploma</li></ul>	
High school diploma or equivalent (e.g., GED)	
Some college but no degree	
Associate's Degree	
Bachelor's Degree	
Master's Degree	
O Professional Degree	
Doctorate	
19. Do you currently reside in Holden?  O Yes	
○ No	
If no, please specify what town/city you live in:	

20. If you currently live in Holden, how long have you lived here?
Less than 1 year
○ 1 - 3 years
○ 4 - 6 years
7 - 9 years
○ 10 - 20 years
More than 20 years
I do not live in Holden and I have never lived there
I used to live in Holden, but I no longer live there

## Holden 2020 Open Space and Recreation Plan Thank you for your input! We greatly appreciate your involvement! Sincerely,

**The Holden Open Space Committee** 

With staff support from The Central Massachusetts Regional Planning Commission (CMRPC).

If you have further comments or questions, or if you are interested in volunteering on matters related to open space and recreation please contact Glenda Williamson, Holden Conservation Agent, by email at gwilliamson@holdenma.gov or phone at (508) 210-5535.

If you have chosen to take this survey by hand, please mail or deliver your hard copy response to the Conservation Department at the Town Hall.

## OPEN SPACE AND RECREATION PLAN COMMUNITY SURVEY

The Town of Holden is in the process of updating the 2012
Open Space and Recreation Plan! An Open Space and
Recreation Plan (OSRP) will allow Holden to protect,
maintain, and improve open spaces throughout your
community. Please consider completing our Community
Survey to share your suggestions and vision for the future of
open space and recreation in Holden!

You can access the **Holden OSRP Community Survey** virtually by scanning the QR code below or by clicking on this link: <a href="https://www.surveymonkey.com/r/HoldenOSRP">https://www.surveymonkey.com/r/HoldenOSRP</a>

If you need a paper copy of the survey, or if you have questions about the Open Space and about the Open Space and Recreation Plan, please reach out to Glenda Williamson, Town of Holden Conservation Agent at gwilliamson@holdenma.gov



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https://www.surveymonkey.com/r/HoldenOSRP

Sponsored by the Holden Open Space Committee

# Town of Holden Open Space and Recreation Plan

Community Survey Results
April 12, 2021



### Survey Responses

494 Total Responses

75% Completion Rate

Typically spent 13 minutes

Survey open February 2021 through March 2021

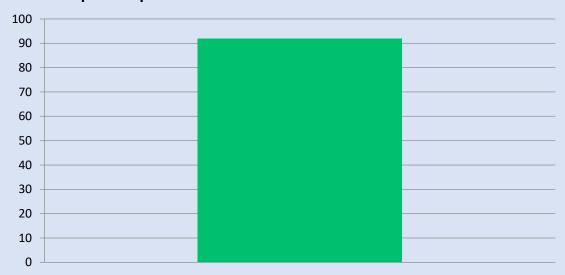


## OPEN SPACE AND RECREATION



## How Important is it to you preserve open space and natural areas in Holden?

How important is it to you to preserve open space and natural areas in Holden?

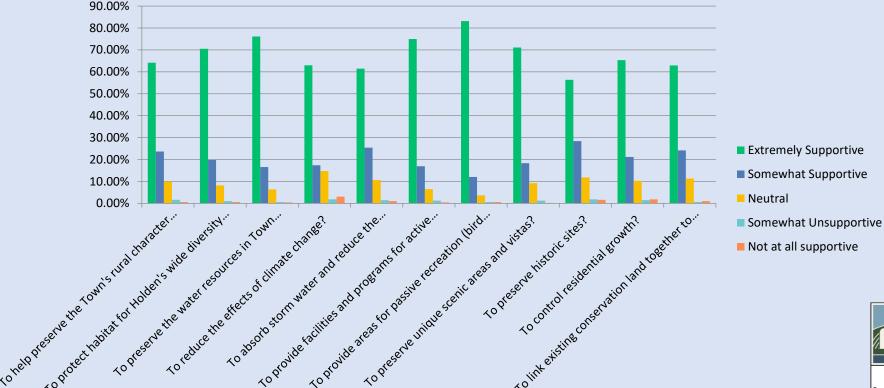






## How strongly do you support protecting and/or acquiring land for the following reasons?

How strongly do you support Holden protecting and/or acquiring land for the following reasons:





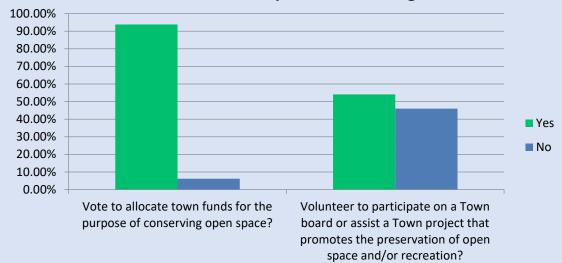
## How strongly do you support protecting and/or acquiring land for the following reasons? (cont.)

	Extremely Supportive		Somewhat Sup	portive	Neutral	Somewhat Unsupportive			Not at all suppo	rtive	Total
To help preserve the Town's rural character and sense of place?	64.15%	315	23.63%	116	9.98%	49	1.63%	8	0.61%	3	491
To protect habitat for Holden's wide diversity of flora and fauna (mammals, birds, reptiles, amphibians)?	70.47%	346	19.76%	97	8.15%	40	1.02%	5	0.61%	3	491
To preserve the water resources in Town (groundwater, wetlands, surface waters)?	76.12%	373	16.53%	81	6.33%	31	0.61%	3	0.41%	2	490
To reduce the effects of climate change?	62.99%	308	17.38%	85	14.72%	72	1.84%	9	3.07%	15	489
To absorb storm water and reduce the effects of flooding from extreme weather?	61.48%	300	25.41%	124	10.66%	52	1.43%	7	1.02%	5	488
To provide facilities and programs for active recreation (sports, fields, courts, hunting and fishing programs, etc.)?	74.95%	368	16.90%	83	6.52%	32	1.22%	6	0.41%	2	491
To provide areas for passive recreation (bird watching, walking, hiking, biking, etc.)?	83.10%	408	12.02%	59	3.67%	18	0.61%	3	0.61%	3	491
To preserve unique scenic areas and vistas?	71.08%	349	18.33%	90	9.16%	45	1.22%	6	0.20%	1	491
To preserve historic sites?	56.33%	276	28.37%	139	11.84%	58	1.84%	9	1.63%	8	490
To control residential growth?	65.30%	318	21.15%	103	10.27%	50	1.44%	7	1.85%	9	487
To link existing conservation land together to increase landscape connectivity, habitat space, and the ecological value of our open	00.000/	005	0.4.4007	447	44.040/		0.000/		4.000/	_	405
space?	62.89% 305		24.12%	117	11.34%	55	0.62%	3	1.03%	5	485
									Answ		493
							Skipp	ped	1		

### Would you be willing to...

en snaces in			OI-t-	ped	4
			Ans	wered	490
Volunteer to participate on a Town board or assist a Town project that promotes the preservation of open space and/or recreation?	54.05%	260	45.95%	221	481
Vote to allocate town funds for the purpose of conserving open space?	93.83%	456	6.17%	30	486
	Yes		No		Total

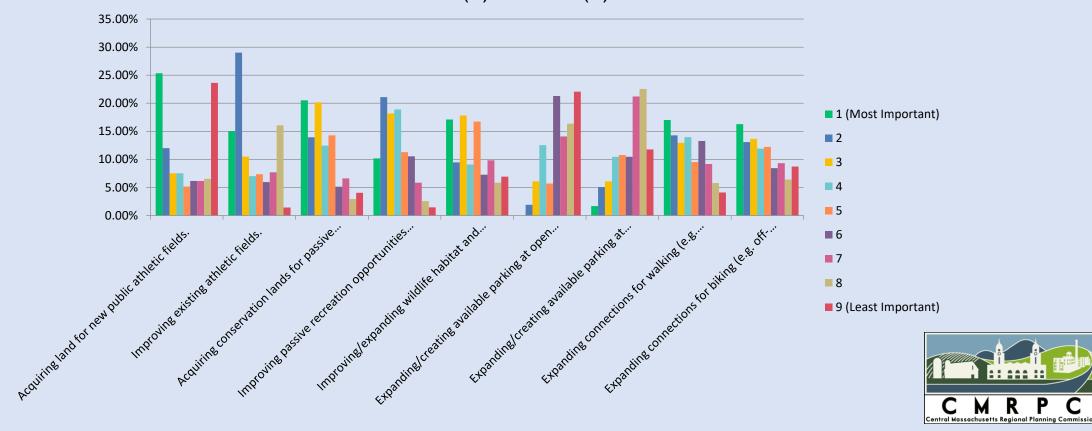
### In order to preserve open spaces in Holden, would you be willing to:





## Priorities for open space and recreation expenditures?

What should Holden's priorities be for open space and recreation expenditures? Please rank how important each of the following are from most (1) to least (9):



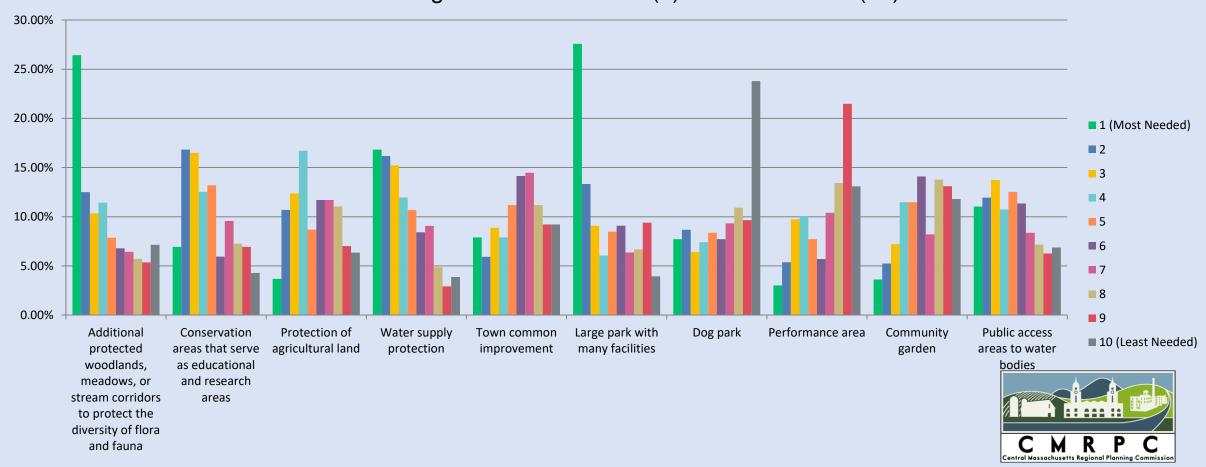
## Priorities for open space and recreation expenditures? (cont.)

	1 (Most Importa	nt)	2		3		4		5		6		7		8		9 (Least Import	iont)	Total
	` '	<i>'</i>			3		4						,					,	
Acquiring land for new public athletic fields.	25.34%	74	11.99%	35	7.53%	22	7.53%	22	5.14%	15	6.16%	18	6.16%	18	6.51%	19	23.63%	69	292
Improving existing athletic fields.	15.03%	43	29.02%	83	10.49%	30	6.99%	20	7.34%	21	5.94%	17	7.69%	22	16.08%	46	1.40%	4	286
Acquiring conservation lands for passive recreation use (e.g. trails).	20.51%	56	13.92%	38	20.15%	55	12.45%	34	14.29%	39	5.13%	14	6.59%	18	2.93%	8	4.03%	11	273
Improving passive recreation opportunities on existing conservation	10.18%	28	21.09%	58	18.18%	50	18.91%	52	11.27%	31	10.55%	29	5.82%	16	2.55%	7	1.45%	4	275
land.																,			
Improving/expanding wildlife habitat and corridors.	17.09%	47	9.45%	26	17.82%	49	9.09%	25	16.73%	46	7.27%	20	9.82%	27	5.82%	16	6.91%	19	275
Expanding/creating available parking at open space destinations.	0.00%	0	1.90%	5	6.08%	16	12.55%	33	5.70%	15	21.29%	56	14.07%	37	16.35%	43	22.05%	58	263
Expanding/creating available parking at recreational destinations.	1.68%	5	5.05%	15	6.06%	18	10.44%	31	10.77%	32	10.44%	31	21.21%	63	22.56%	67	11.78%	35	297
Expanding oreding available parking at 100 battorial declinations.	1.0070	Ü	0.0070	10	0.0070	10	10.4470	01	10.7770	02	10.4470	01	21.2170	00	22.0070	01	11.7070	00	201
Expanding connections for walking (e.g. sidewalks, connecting trails)	17.01%	50	14.29%	42	12.93%	38	13.95%	41	9.52%	28	13.27%	39	9.18%	27	5.78%	17	4.08%	12	294
Expanding connections for biking (e.g. off-road paths, on-road lanes,																			
and rail trails).	16.28%	56	13.08%	45	13.66%	47	11.92%	41	12.21%	42	8.43%	29	9.30%	32	6.40%	22	8.72%	30	344
																Answere		ered/	393
																	Skipped		101
																	Cimppou		



## Biggest unmet open space need?

What do you consider to be the biggest unmet open space needs in Holden? Please rank the following from most needed (1) to least needed (10):



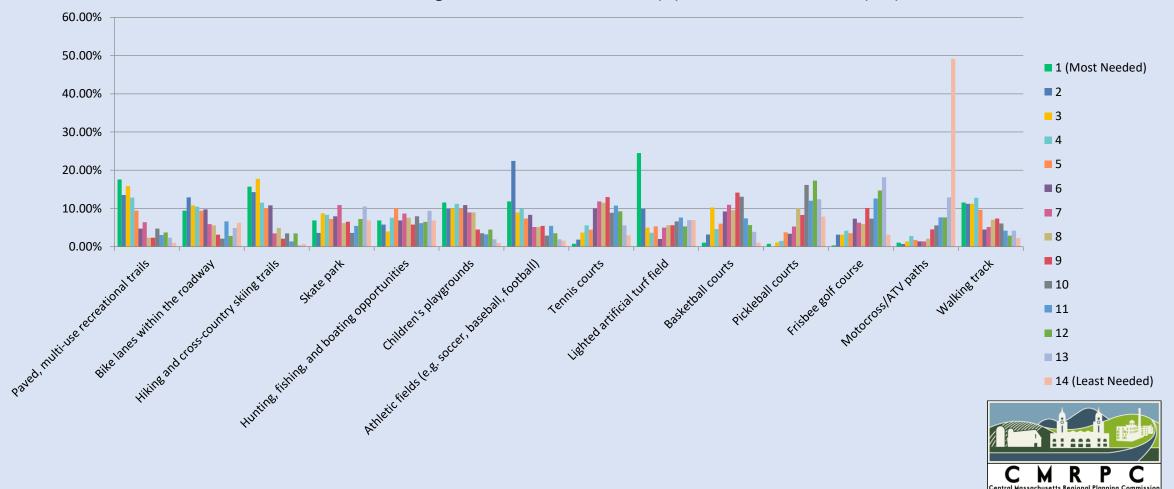
## Biggest unmet need? (cont.)

	1 (Most Needed	)	2		3		4		5		6		7		8		9		10 (Least Needed)	To	otal
Additional protected woodlands, meadows, or stream corridors to protect the diversity of flora and fauna	26.43%	74	12.50%	35	10.36%	29	11.43%	32	7.86%	22	6.79%	19	6.43%	18	5.71%	16	5.36%	15	7.14%	20	280
Conservation areas that serve as educational and research areas	6.93%	21	16.83%	51	16.50%	50	12.54%	38	13.20%	40	5.94%	18	9.57%	29	7.26%	22	6.93%	21	4.29%	13	303
Protection of agricultural land	3.68%	11	10.70%	32	12.37%	37	16.72%	50	8.70%	26	11.71%	35	11.71%	35	11.04%	33	7.02%	21	6.35%	19	299
Water supply protection	16.83%	52	16.18%	50	15.21%	47	11.97%	37	10.68%	33	8.41%	26	9.06%	28	4.85%	15	2.91%	9	3.88%	12	309
Town common improvement	7.89%	24	5.92%	18	8.88%	27	7.89%	24	11.18%	34	14.14%	43	14.47%	44	11.18%	34	9.21%	28	9.21%	28	304
Large park with many facilities	27.58%	91	13.33%	44	9.09%	30	6.06%	20	8.48%	28	9.09%	30	6.36%	21	6.67%	22	9.39%	31	3.94%	13	330
Dog park	7.72%	24	8.68%	27	6.43%	20	7.40%	23	8.36%	26	7.72%	24	9.32%	29	10.93%	34	9.65%	30	23.79%	74	311
Performance area	3.02%	9	5.37%	16	9.73%	29	10.07%	30	7.72%	23	5.70%	17	10.40%	31	13.42%	40	21.48%	64	13.09%	39	298
Community garden	3.61%	11	5.25%	16	7.21%	22	11.48%	35	11.48%	35	14.10%	43	8.20%	25	13.77%	42	13.11%	40	11.80%	36	305
Public access areas to water bodies	11.04%	37	11.94%	40	13.73%	46	10.75%	36	12.54%	42	11.34%	38	8.36%	28	7.16%	24	6.27%	21	6.87%	23	335
																			Answere	1	380
																			Skipped		114



#### Biggest unmet recreation need?

What do you consider to be the biggest unmet recreation needs in Holden? Please rank the following from most needed (1) to least needed (14):



### Biggest unmet recreation need? (cont.)

		1 (Most Needed	)	2		3		4		5		6		7		8		9		10		11		12		13		14 (Least Needed	Т	Γotal
Paved, multi-use recreational trails		17.57%	52	13.51%	40	15.88%	47	12.84%	38	9.46%	28	4.73%	14	6.42%	19	2.36%	7	2.36%	7	4.73%	14	3.04%	9	3.72%	11	2.36%	7	1.01%	3	296
Bike lanes within the roadway		9.41%	27	12.89%	37	10.80%	31	10.45%	30	9.41%	27	9.76%	28	5.92%	17	5.57%	16	3.14%	9	2.09%	6	6.62%	19	2.79%	8	4.88%	14	6.27%	18	287
Hiking and cross-country skiing trails		15.68%	45	14.29%	41	17.77%	51	11.50%	33	10.10%	29	10.80%	31	3.48%	10	4.88%	14	2.09%	6	3.48%	10	1.39%	4	3.48%	10	0.35%	1	0.70%	2	287
Skate park		6.88%	19	3.62%	10	8.70%	24	8.33%	23	7.25%	20	7.97%	22	10.87%	30	6.16%	17	6.52%	18	3.62%	10	5.43%	15	7.25%	20	10.51%	29	6.88%	19	276
Hunting, fishing, and boating opportuniti	es	6.86%	19	5.78%	16	3.97%	11	7.58%	21	10.11%	28	6.86%	19	8.66%	24	7.58%	21	5.78%	16	7.94%	22	6.14%	17	6.50%	18	9.39%	26	6.86%	19	277
Children's playgrounds		11.54%	36	9.94%	31	9.94%	31	11.22%	35	9.94%	31	10.90%	34	8.97%	28	8.97%	28	4.49%	14	3.53%	11	3.21%	10	4.49%	14	1.92%	6	0.96%	3	312
Athletic fields (e.g. soccer, baseball, foo	tball)	11.86%	37	22.44%	70	8.97%	28	9.94%	31	7.37%	23	8.33%	26	5.13%	16	5.13%	16	5.45%	17	2.88%	9	5.45%	17	3.53%	11	1.92%	6	1.60%	5	312
Tennis courts		0.74%	2	1.85%	5	3.70%	10	5.56%	15	4.44%	12	10.00%	27	11.85%	32	11.48%	31	12.96%	35	8.89%	24	10.74%	29	9.26%	25	5.56%	15	2.96%	8	270
Lighted artificial turf field		24.50%	74	9.93%	30	4.97%	15	3.64%	11	5.30%	16	1.99%	6	4.97%	15	5.63%	17	5.63%	17	6.62%	20	7.62%	23	5.30%	16	6.95%	21	6.95%	21	302
Basketball courts		1.06%	3	3.18%	9	10.25%	29	4.59%	13	6.01%	17	9.19%	26	10.95%	31	9.54%	27	14.13%	40	13.07%	37	7.42%	21	5.65%	16	3.89%	11	1.06%	3	283
Pickleball courts		0.75%	2	0.00%	0	1.13%	3	1.50%	4	3.76%	10	3.38%	9	5.26%	14	10.15%	27	8.27%	22	16.17%	43	12.03%	32	17.29%	46	12.41%	33	7.89%	21	266
Frisbee golf course		0.35%	1	3.15%	9	3.15%	9	4.20%	12	3.50%	10	7.34%	21	6.29%	18	5.94%	17	10.14%	29	7.34%	21	12.59%	36	14.69%	42	18.18%	52	3.15%	9	286
Motocross/ATV paths		1.05%	3	0.70%	2	1.39%	4	2.79%	8	1.74%	5	1.39%	4	1.39%	4	2.09%	6	4.53%	13	5.57%	16	7.67%	22	7.67%	22	12.89%	37	49.13%	141	287
Walking track		11.54%	36	11.22%	35	11.22%	35	12.82%	40	9.62%	30	4.49%	14	5.13%	16	7.05%	22	7.37%	23	6.09%	19	4.17%	13	2.88%	9	4.17%	13	2.24%	7	312
																												Answere	d	382
																												Skipped		112



## What are your favorite open spaces or recreational facilities in Holden?

- Oak Hill Land Trust
- Trout Brook\*\*\*\*\*\*\*\*
- Mill Street Bike Trails
- Dawson Rec/Pond\*\*\*
- Davis Hill\*\*\*\*\*
- Eagle Lake\*\*\*\*
- White Oak Properties

- Holden pool and playground
- Maple Spring Pond
- Poutwater Pond
- Quinapoxet
- Echo Lake
- Wachusett Regional High School
- River Street Trail



## Do you have any suggestions for how these open spaces or recreational facilities can be improved?

- Restore trails in Holden Town Forest
- More mountain biking trails
- Clean brush, debris, garbage at open spaces/recreational fields
- Need lighted turf field
- Want skate park
- Longer hours at pool

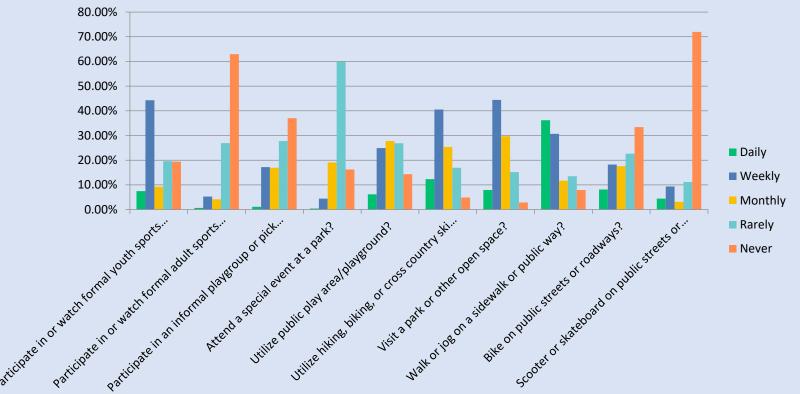


## ACCESS AND UTILIZATION



# How often do you go to a park or other open space in Holden to...

How often do you go to a park or other open space in Holden to...





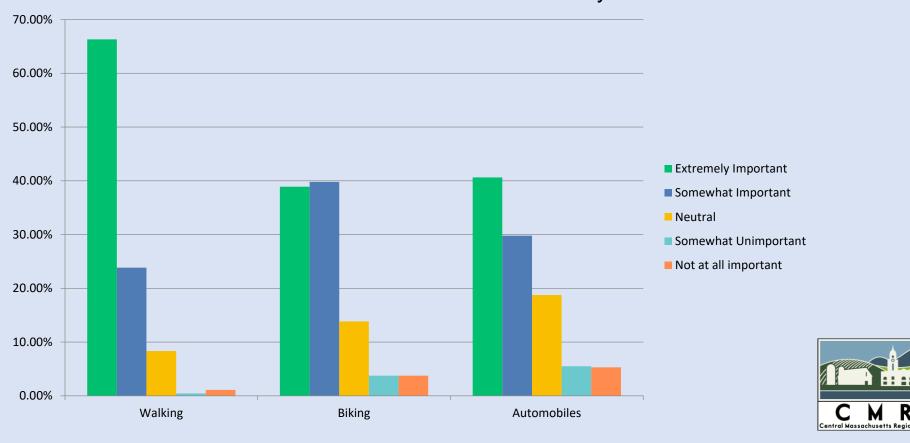
# How often do you go to a park or other open space in Holden to... (cont.)

	Daily		Weekly	/	Monthly	1	Rarely		Never		Total
Participate in or watch formal youth sports leagues?	7.49%	34	44.27%	201	9.25%	42	19.60%	89	19.38%	88	454
Participate in or watch formal adult sports leagues?	0.66%	3	5.30%	24	4.19%	19	26.93%	122	62.91%	285	453
Participate in an informal playgroup or pick up game?	1.10%	5	17.18%	78	16.96%	77	27.75%	126	37.00%	168	454
Attend a special event at a park?	0.44%	2	4.43%	20	19.07%	86	59.87%	270	16.19%	73	451
Utilize public play area/playground?	6.17%	28	24.89%	113	27.75%	126	26.87%	122	14.32%	65	454
Utilize hiking, biking, or cross country ski trails?	12.33%	56	40.53%	184	25.33%	115	16.96%	77	4.85%	22	454
Visit a park or other open space?	7.91%	36	44.40%	202	29.67%	135	15.16%	69	2.86%	13	455
Walk or jog on a sidewalk or public way?	36.20%	164	30.68%	139	11.70%	53	13.47%	61	7.95%	36	453
Bike on public streets or roadways?	8.13%	37	18.24%	83	17.58%	80	22.64%	103	33.41%	152	455
Scooter or skateboard on public streets or roadways?	4.45%	20	9.35%	42	3.12%	14	11.14%	50	71.94%	323	449
									An	swered	455
									Sk	ipped	39



# How important is it to be able to access open space and recreational destinations in Holden by:

How important is it to be able to access open space and recreational destinations in Holden by:

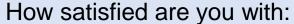


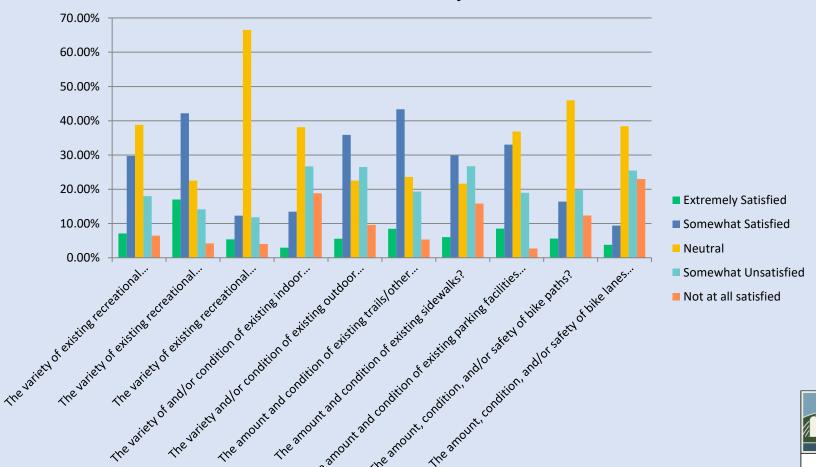
# How important is it to be able to access open space and recreational destinations in Holden by... (cont.)

	Extremely Impo	ortant	Somewhat Imp	ortant	Neutral	S	omewhat Unimp	oortant	Not at all impor	tant	Total
Walking	66.30%	303	23.85%	109	8.32%	38	0.44%	2	1.09%	5	457
Biking	38.90%	177	39.78%	181	13.85%	63	3.74%	17	3.74%	17	455
Automobiles	40.62%	184	29.80%	135	18.76%	85	5.52%	25	5.30%	24	453
									Answ	vered	457
									Skipp	oed	37



### How satisfied are you with...







## How satisfied are you with... (cont.)

	Extremely Satis	sfied	Somewhat Sa	atisfied	Neutral	;	Somewhat Un	satisfied	Not at all sati	sfied	Total
The variety of existing recreational programs/opportunities for adults?	7.10%	32	29.71%	134	38.80%	175	17.96%	81	6.43%	29	451
The variety of existing recreational programs/opportunities for children?	17.00%	77	42.16%	191	22.52%	102	14.13%	64	4.19%	19	453
The variety of existing recreational programs/opportunities for the aging adults?	5.36%	24	12.28%	55	66.52%	298	11.83%	53	4.02%	18	448
The variety of and/or condition of existing indoor recreational facilities?	2.91%	13	13.45%	60	38.12%	170	26.68%	119	18.83%	84	446
The variety and/or condition of existing outdoor recreational facilities?	5.57%	25	35.86%	161	22.49%	101	26.50%	119	9.58%	43	449
The amount and condition of existing trails/other passive recreation opportunities?	8.44%	38	43.33%	195	23.56%	106	19.33%	87	5.33%	24	450
The amount and condition of existing sidewalks?	6.01%	27	29.84%	134	21.60%	97	26.73%	120	15.81%	71	449
The amount and condition of existing parking facilities at Holden's											
open spaces?	8.48%	38	33.04%	148	36.83%	165	18.97%	85	2.68%	12	448
The amount, condition, and/or safety of bike paths?	5.61%	25	16.37%	73	45.96%	205	19.73%	88	12.33%	55	446
The amount, condition, and/or safety of bike lanes within roadways?	3.79%	17	9.38%	42	38.39%	172	25.45%	114	22.99%	103	448
									Ans	wered	455
									Skip	ped	39



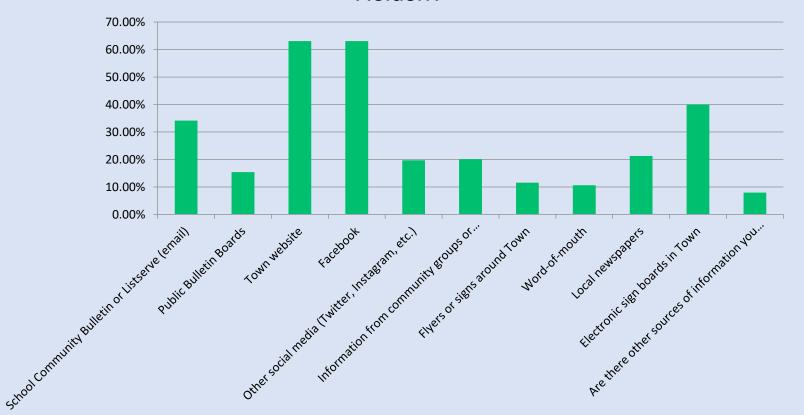
Q11 Do you regularly travel to any other communities for open space and/or recreational opportunities? Please list community and the activity for which you travel there for.

kids Shrewsbury Dean park Reservoir Mt Wachusett Walking biking Princeton Westminster swimming walking track Wachusett walking paths Wachusett Mountain Hiking running access Marlboro Soccer better go regularly skate park Northborough Rutland State Park path turf fields various fields bicycling travel picnics Princeton hiking lacrosse park Leominster state forest boyIston rail trail Clinton rail trail Acton Paxton Barre Sterling soccer fields Princeton beach Walking track Rutland dogs hiking Holden West Boylston Comet pond Worcester worcester dog park playground lake Yes skiing biking spencer West Boylston Rail mountain trails baseball towns communities Rutland rail trail running hiking trails outdoor fishing Brookfields West Boylston Rutland use Hubbardston roads mountain biking Audobon kayaking Gardner Auburn surrounding towns State park dog park Moore State Park travel communities Shrewsbury frisbee golf Marlborough st park Leominster Northboro



How would you prefer to get information about open spaces and/or recreational opportunities and events in Holden?

How would you prefer to get information about open spaces and/or recreational opportunities and events in Holden?

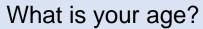


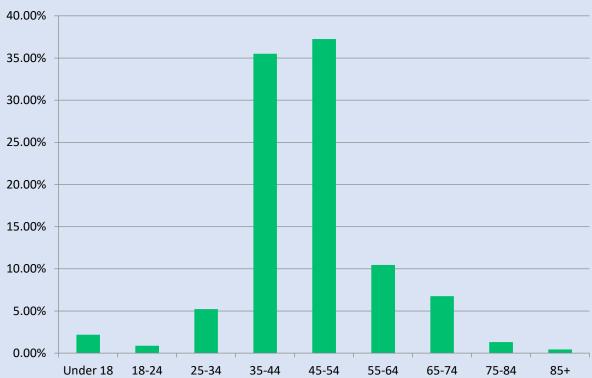


## DEMOGRAPHICS



## What is your age?



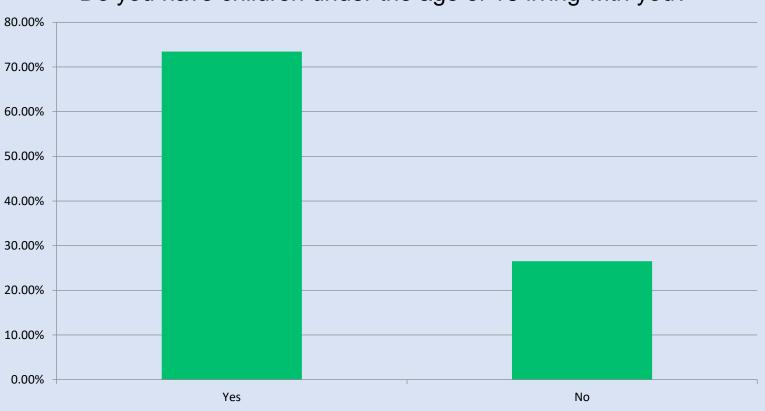


Answer Choices	Responses	
Under 18	2.18%	10
18-24	0.87%	4
25-34	5.23%	24
35-44	35.51%	163
45-54	37.25%	171
55-64	10.46%	48
65-74	6.75%	31
75-84	1.31%	6
85+	0.44%	2
	Answered	459
	Skipped	35



# Do you have children under the age of 18 living with you?

Do you have children under the age of 18 living with you?

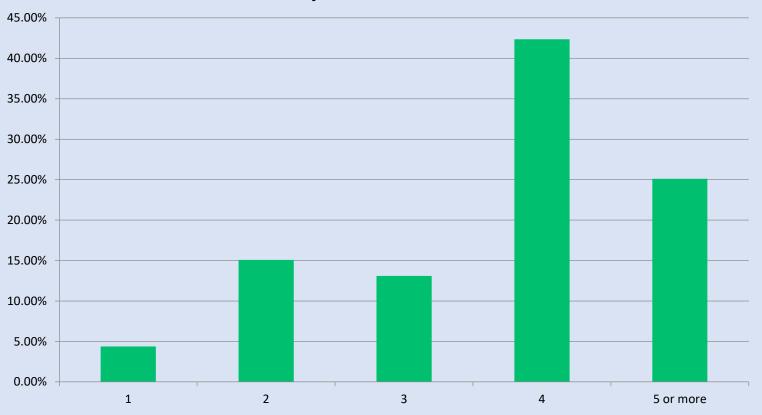


Answer Choices	Responses	
Yes	73.46%	335
No	26.54%	121
	Answered	456
	Skipped	38



## What is your household size?

#### What is your household size?

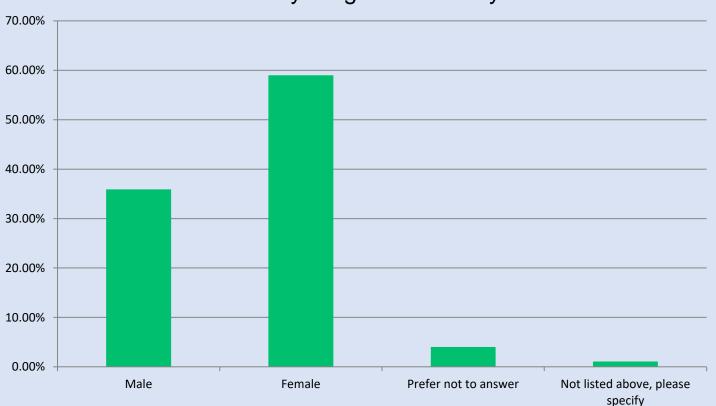


Answer Choices	Responses	
1	4.37%	20
2	15.07%	69
3	13.10%	60
4	42.36%	194
5 or more	25.11%	115
	Answered	458
	Skipped	36



### What is your gender identity?

#### What is your gender identity?

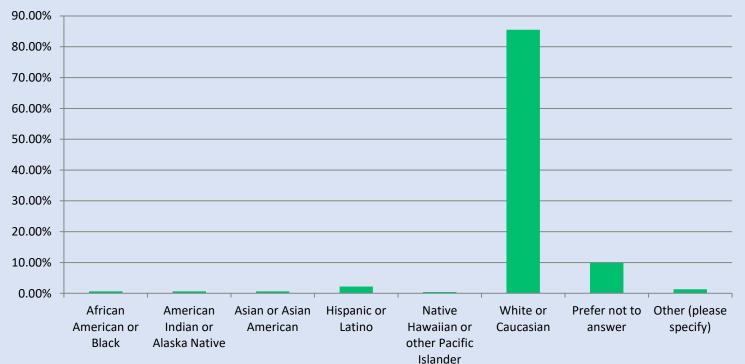


Answer Choices	Responses	
Male	35.92%	134
Female	58.98%	220
Prefer not to answer	4.02%	15
Not listed above, please specify	1.07%	4
	Answered	373
	Skipped	121



# What is your race/ethnicity? Please check all that apply.

What is your race/ethnicity? Please check all that apply.

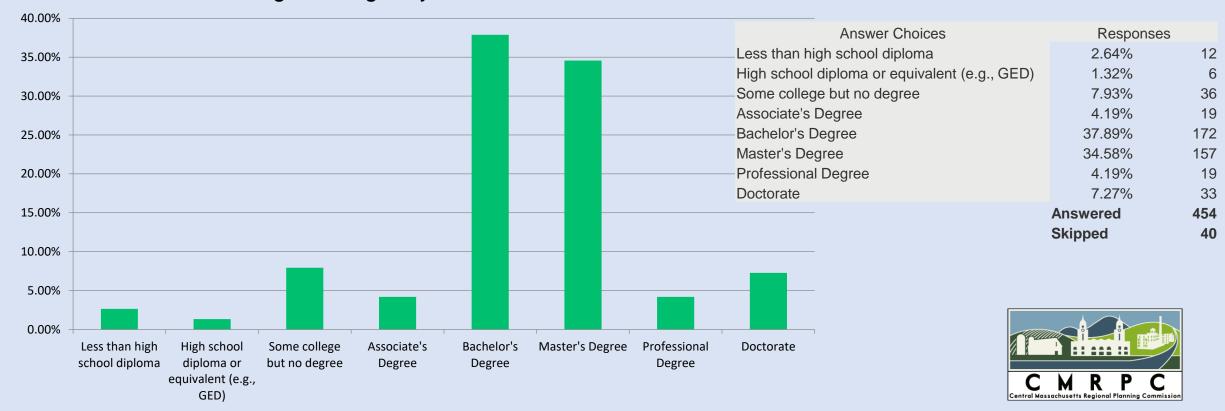


Answer Choices	Responses	
African American or Black	0.66%	3
American Indian or Alaska Native	0.66%	3
Asian or Asian American	0.66%	3
Hispanic or Latino	2.20%	10
Native Hawaiian or other Pacific Islander	0.44%	2
White or Caucasian	85.49%	389
Prefer not to answer	9.89%	45
Other (please specify)	1.32%	6
	Answered	455
	Skipped	39



# What is the highest level of school you have completed or the highest degree you have received?

What is the highest level of school you have completed or the highest degree you have received?



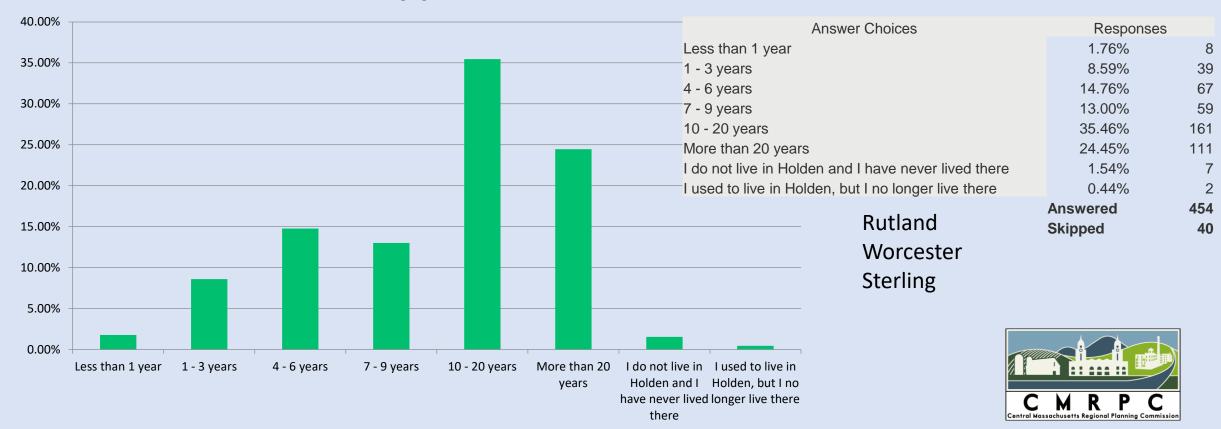
### Do you currently reside in Holden?

#### Do you currently reside in Holden?



# If you currently live in Holden, how long have you lived here?

If you currently live in Holden, how long have you lived here?



## QUESTIONS?





#### INTERESTED IN IMPROVING OPEN SPACE AND RECREATION OPPORTUNITIES IN HOLDEN?

STOP IN AT HOLDEN'S

## OPEN SPACE & RECREATION PLAN WALKSHOP SATURDAY, JUNE 12

SATURDAY, JUNE 12, 2021 ANYTIME BETWEEN 9:00 – 11:00 AM TROUT BROOK RECREATION AREA 320 MANNING STREET

COME BY THE TROUT BROOK RECREATION AREA ON JUNE 12<sup>TH</sup> ANYTIME BETWEEN 9:00 – 11:00 AM TO SHARE YOUR SUGGESTIONS AND VISION FOR THE FUTURE OF OPEN SPACE AND RECREATION IN HOLDEN!

WHILE YOU'RE HERE, ENJOY 660 ACRES OF CONSERVATION LAND WITH A SYSTEM OF TRAILS, POND ACCESS, OPEN FIELDS, AND PICNIC AREA!

#### COFFEE AND DONUTS PROVIDED!

Your participation in this forum is critical to the state's acceptance of our open space and recreation plan. To learn more about the Open Space and Recreation Committee or this planning process, please scan this QR code!



This event will be conducted outdoors under the Trout Brook Pavilion. COVID protocols will be followed, and masks will be required to be worn if 6 ft. of social distancing cannot be maintained.

#### YOU ARE INVITED TO STOP IN AT:

**HOLDEN'S** 

# OPEN SPACE & RECREATION PLAN WALKSHOP

SATURDAY, JUNE 12, 2021
ANYTIME BETWEEN 9:00 – 11:00 AM
TROUT BROOK RECREATION AREA
320 MANNING STREET

COME BY TO SHARE YOUR SUGGESTIONS AND VISION FOR THE FUTURE OF OPEN SPACE AND RECREATION IN HOLDEN! WHILE YOU'RE HERE, ENJOY 660 ACRES OF CONSERVATION LAND WITH A SYSTEM OF TRAILS, POND ACCESS, OPEN FIELDS, AND PICNIC AREA!

**COFFEE AND DONUTS PROVIDED!** 



Meeting Name: OSRP Public Forum

Date: June 12, 2021

Community: Holden

**Location: Trout Brook** 

Meeting Time: 9:00 - 11:00 AM

Participant Name	Organization	Phone #	E-Mail
DANI MARINI	CMRPC	781-266-6766	dmanniacmpcorg
Mike Sauno	Open Sa.	508 829 9080	Mike @ Mike Stuno. Rom
Craix Mc Coll	white oak	5088690127	CMCCOIl Charter. Met
Michael Fdey		508-320-7440	mjSoley 126 gmail.com
DAVD MURPHY	HOLDEN YOUTH	50TER 774 254 7026	Murphydavid 710 Q gmail com
Jennifer Lish		774-364-05	59 jennifer lishplid
			Cogmail. Con
Bill Fisher		508-523-513	6 billfisher 250 Bamail-com
Bryan + Jen Mac Innes			dragon fly a me thyst & grant.com
SCOTT MATHESON		240-396-9011	5 MATHESON PUNEYARD WOND
Pan Harding		508 210 5541	pharding Choldenmaga
Ryan Murphy		500 345 4427	buzzmurphyegmil.com



Meeting Name: OSRP Public Forum

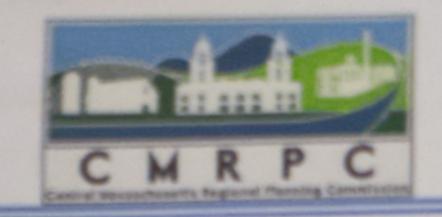
Date: June 12, 2021

Community: Holden

**Location: Trout Brook** 

Meeting Time: 9:00 - 11:00 AM

Participant Name	Organization	Phone #	E-Mail
Mary MURPHY		774-535-4916	
JIM BRADBURY		(508) 680-6356	
GORRY KURSUS		508-Z1U-0850	gkersus @ adl.com
Alan Lambert		978-257-3148	
DENISE MORANO	Town of HOLDEN	508 829 0263	dorano @ Bor holden Ma-go
Glenda Williamun	Town of Holden	508 210-5535	gwilliamsona hollenna.gov
Nat-alie pellecese		913-302-4522	Natalie bellever agmail-a
Barry bellecte		017-678-7406	barry belleres agmailer
LINNATIED ROBBINS	Town of Holden	508 8293411	tradrobbins30 attof Mark, com
Shayna + Kristian Boi	nzey	5888646024	shaynalsmith4@gmail-com
Jae Pastilli		978 337 4737	



Meeting Name: OSRP Public Forum

Date: June 12, 2021

Community: Holden

Location: Trout Brook

Meeting Time: 9:00 - 11:00 AM

Participant Name	Organization	Phone #	E-Mail
Heather + Brian Parry	Citizen	(508) 579-9198	hparry 1200 gmail.com
Liz Johnson Brian Paris	FOEL	(text 508-579-6883) Preferrad)	ejohnson 1850@ma
Limbolier		208 6129295	LISAVANUEWegmail
Don Marinone		617-312-2567	dan Marinare Ogras
Loraine, Marine		505 829 7159	Lovaine mariner garel:
Janes NOIA			James_N_Ohere@ Hotmal. 1

# Town of Holden Open Space and Recreation Plan 2021

HOLDEN PLANNING BOARD
HOLDEN BOARD OF SELECTMEN





#### **AGENDA**

Welcome and Purpose

Presentation of OSRP Highlights

Presentation of Survey Results

Public Forum Discussion

Goals, Objectives, Action Items

Next Steps and Closing Remarks

#### OPEN SPACE COMMITTEE

**GLENDA WILLIAMSON, Planning and Development, Conservation Agent** PAM HARDING, Planning and Development, Director and Town Planner **DENISE MORANO**, Recreation Department, Former Director **NICHOLE HALLETT, Recreation Department, Current Director** JAMES DUNN, Agricultural Commission, Chairman RICHARD A. CALLAHAN, PhD, White Oak Land Conservation Society **DAVID MURPHY, Holden Youth Soccer** STEVE JASLOWICH, Holden Youth Soccer **ERIN BRADBURY, Recreation Committee** 

> DANI MARINI, Environmental Planner Central Massachusetts Regional Planning Commission (CMRPC)

#### PLANNING PROCESS

#### Community Organization

- Collaboration with CMRPC
- Appointment of Holden Open Space Committee

#### Data Collection

- Community profile: demographic, housing, other data from US Census
- Environmental issues and concerns
- Water quality
- Inventory of open spaces

#### Community Input

- Survey
- Public Forum (Walkshop)

#### Document Preparation and Review

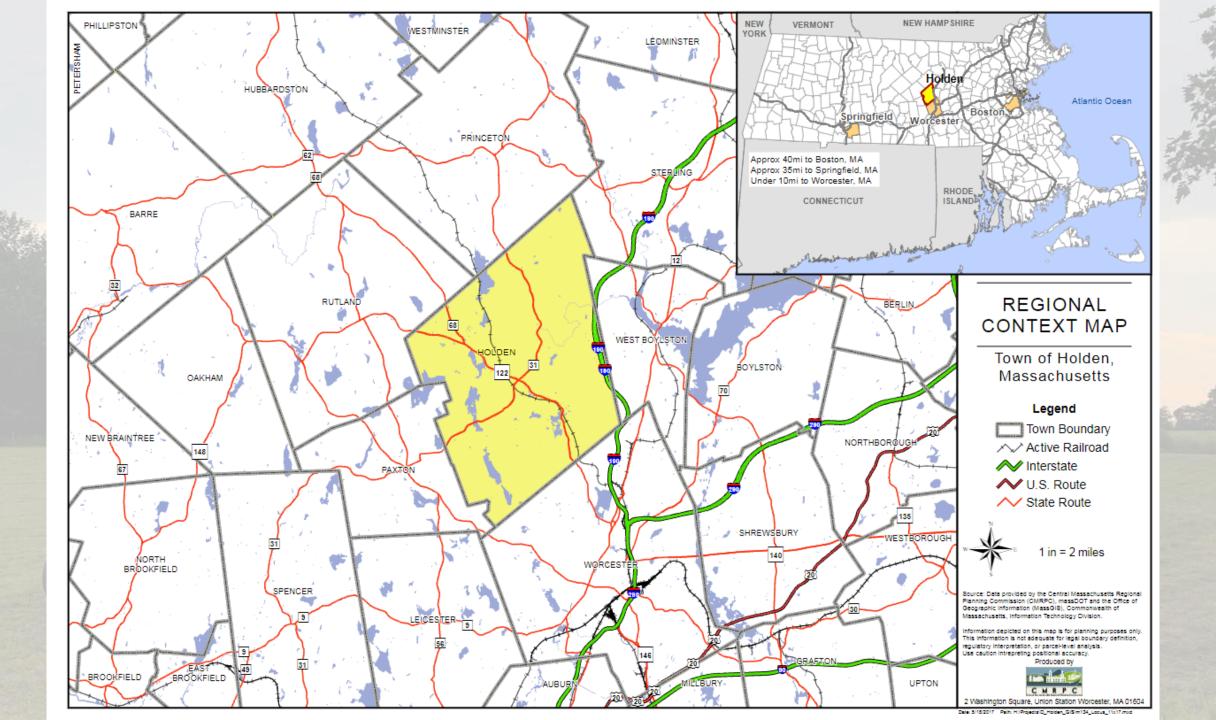


- Presentation to Planning Board
- Presentation to BOS
- Public Comment
- Submit Plan to the State
- Review and Acceptance

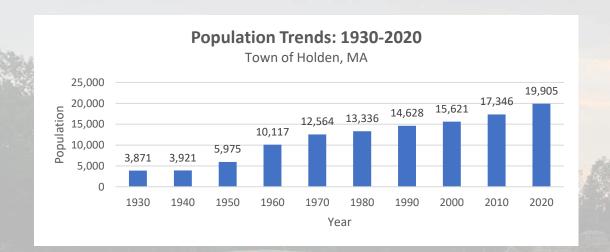
#### PURPOSE OF AN OPEN SPACE AND RECREATION PLAN

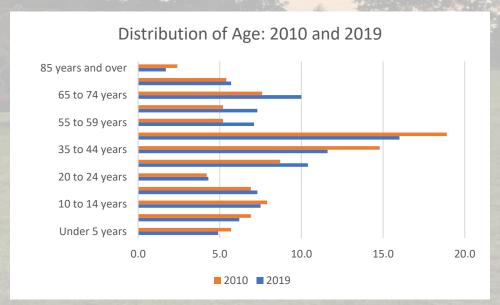
- Open space is important to the economic future of a community
- Open Space and Recreation Plans can obtain the benefits of development while protecting environmental assets
- Aid in preventing communities from overwhelming available resources
- Communities with approved OSRPs are eligible to apply for:
  - Parkland Acquisitions and Renovations for Communities (PARC) grant
  - Local Acquisitions for Natural Diversity (LAND) grant
  - Other state grant programs
- The last Open Space and Recreation Plan was updated in 2012





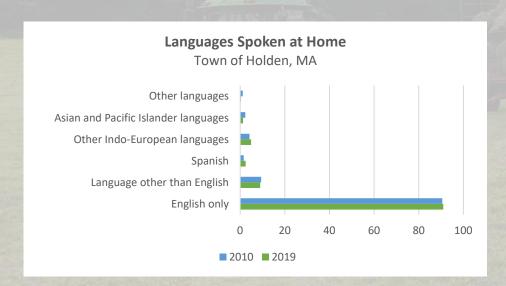
#### POPULATION AND AGE

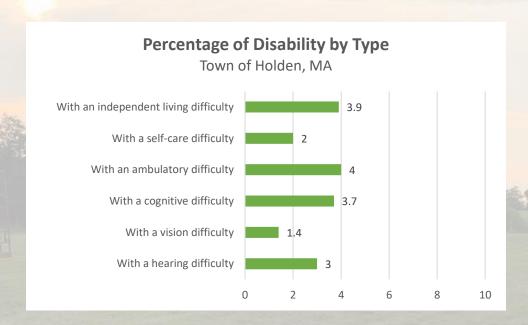


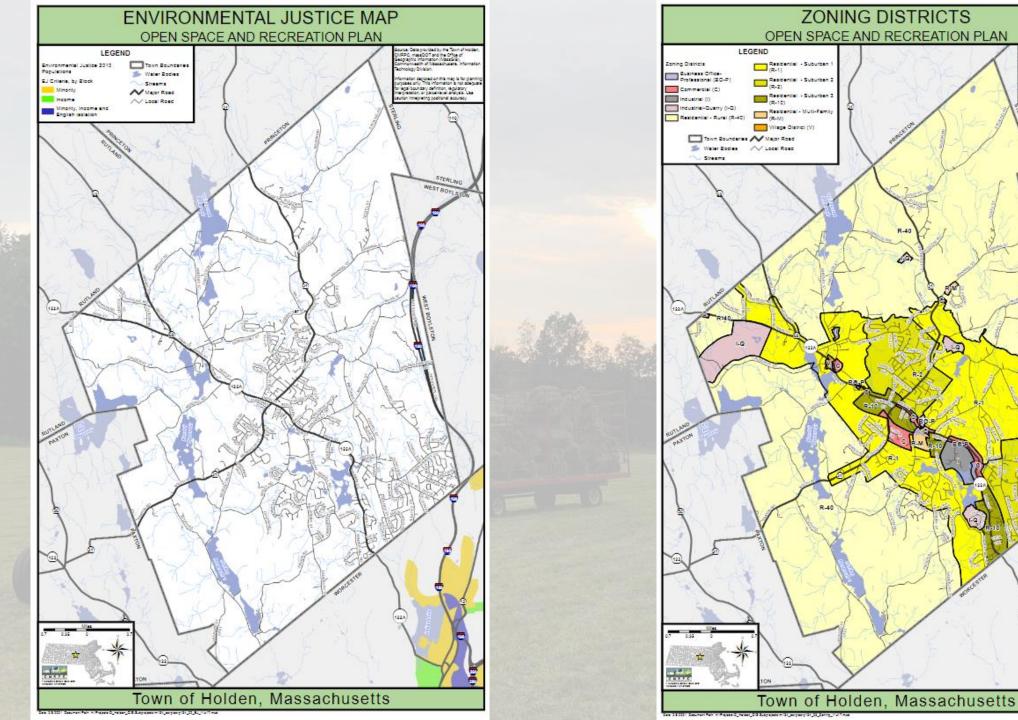


### RACE, LANGUAGE, DISABILITY

Race and Ethnicity	2019	2010	Change
White	95.0%	95.6%	-0.6%
Black or African American	0.9%	0.6%	0.3%
American Indian and Alaska			
Native	0.1%	0.1%	0.0%
Asian	2.0%	2.7%	-0.7%
Native Hawaiian and Other			
Pacific Islander	0.0%	0.1%	-0.1%
Some other race	0.3%	0.1%	0.2%
Two or more races	1.7%	0.7%	1.0%
Hispanic	4.3%	1.5%	2.8%



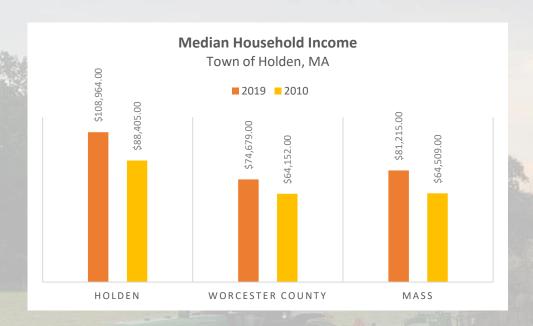




source: Data provided by the Town of Holds OURPC, massDOT and the Office of Seographic Information (MassSO). Commonwealth of Massachusers, Informati Rechnology Division.

Information deployed on this map is for planning upposes only. This information is not adequate the lagged boundary definition, regulatory interpretation, or particle level analysis. Use pastforn interpreting goaltional accuracy.

#### INCOME AND EMPLOYMENT



Oc	cupations	Number	%	
	Management, business, science, and arts occupations	Į	5843	56.8%
	Service occupations	-	1285	12.5%
	Sales and office occupations	-	1833	17.8%
4	Natural resources, construction, and maintenance			
ОС	cupations		522	5.1%
	Production, transportation, and material moving			
oco	cupations		813	7.9%

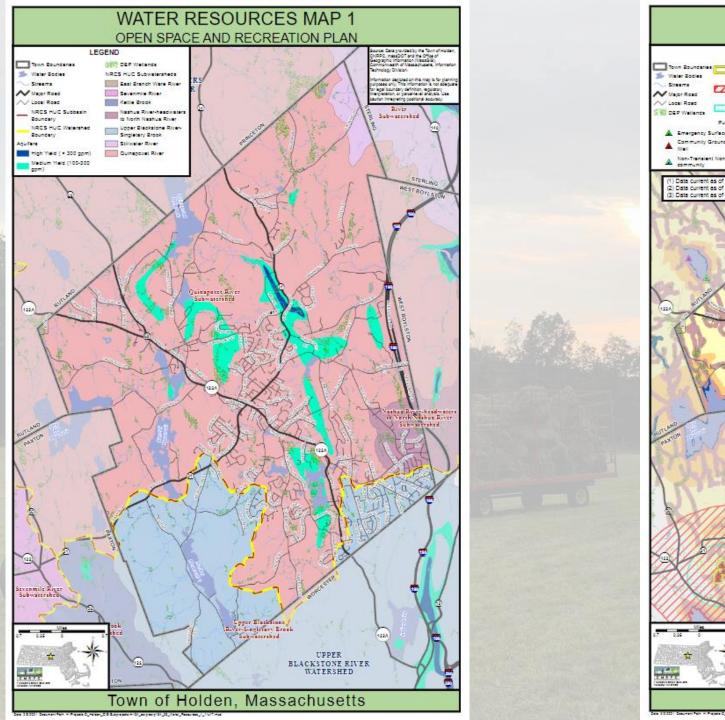
### GEOLOGY, SOILS, AND TOPOGRAPHY

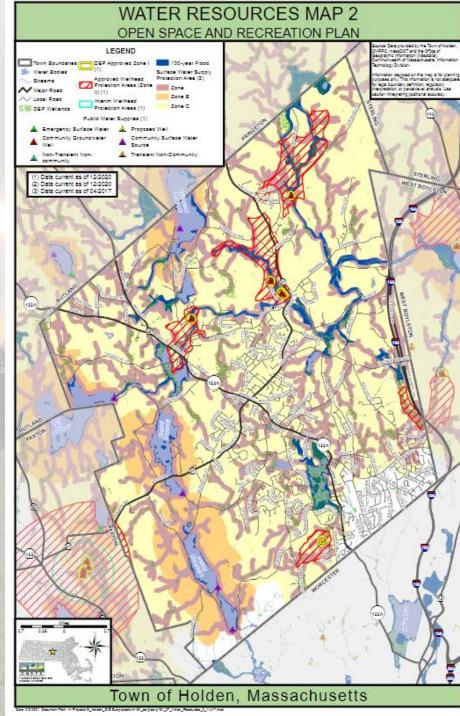
- Moderately hilly, steeper on the western part of town
- USGS elevations range from:
  - High of 1,395 feet above sea level on Asnebumskit Hill
  - Low of less than 550 feet above sea level on the Quinapoxet River
- Soils Include:
  - Paxton-Woodbridge-Canton
  - Hinckley-Merrimac-Windsor
- 7% of Holden's developable land has slopes in excess of 15%
  - Creates some construction challenges



#### WATER RESOURCES

- Blackstone River Watershed
  - Incorporates the Quinsigamond, West, Mumford, Mill, and Peters River Systems
- Nashua River Watershed
  - Quinapoxet River Tributary Basin
  - Stillwater River Tributary Basin
  - Wachusett Reservoir Tributary Basin
- Other surface waters include:
  - Asnebumskit Brook
  - Trout Brook
  - Eagle Lake
  - Chaffin Pond
  - Cedar Swamp Brook
- Have public water and sewer systems
  - Approximately 80% of town on public water





#### VEGETATION, WILDLIFE, AND VERNAL POOLS

- Vegetation
  - Worcester Plateau Ecoregion
    - Northern and transition hardwoods
    - Forested wetlands common
  - Southern New England Coastal Plains and Hills Ecoregion
    - Mainly central hardwoods
    - Elm, ash, red maple trees
    - Red and white pine trees
- Wildlife
  - Wooded Areas Racoon, Fox, Fisher,
     Deer
  - Grassland Fields Bobolink, Eastern
     Meadowlarks
- Vernal Pools
  - 27 certified vernal pools
  - 118 potential vernal pools

Taxonomic Group	omic Group Scientific Common Name		MESA Status
Vascular Plant	Cyperus houghtonii	Houghton's Flatsedge	Endangered
Vascular Plant	Arceuthobium pusillum	Dwarf Mistletoe	Special concern
Dragonfly / Damselfly	Ophiogomphus aspersus	Brook Snaketail	Special concern
Reptile	Glyptemys insculpta	Wood Turtle	Special concern
Amphibians	Hemidactylium scutatum	Four-toed Salamander	Non-listed SWAP
Amphibians	Gyrinophilus porphyriticus	Spring Salamander	Non-listed SWAP
Amphibians	Ambystoma opacum	Marbled Salamander	Threatened

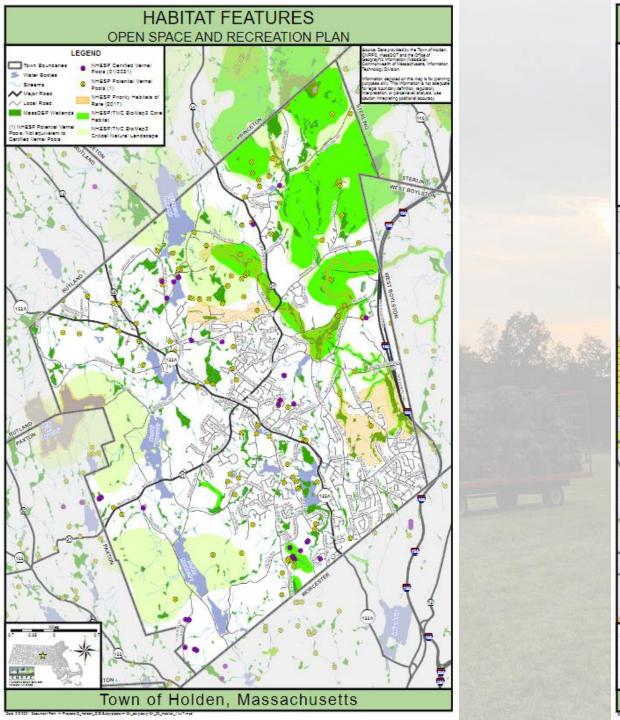
#### OPEN SPACE AND RECREATION LANDS

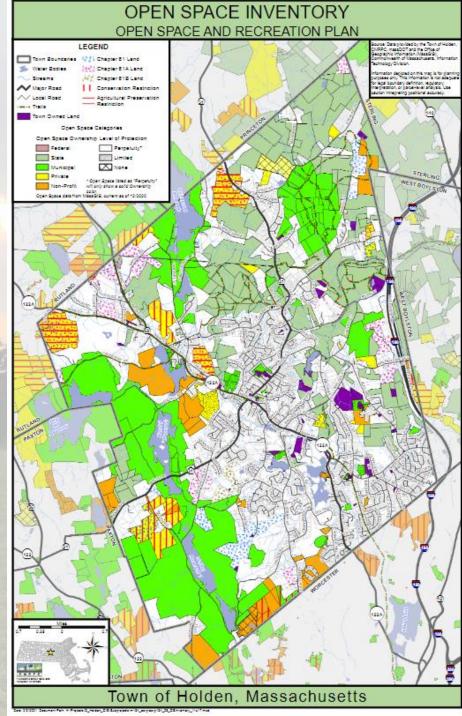
All C	All Chapter Land Types						
Chapter Type	CAMA Acres	%					
Chapter 61	429.14	27.85%					
Chapter 61A	1,003.97	65.14%					
Chapter 61B	108.03	7.01%					
<b>Grand Total</b>	1,541.14	100.00%					

All Type of Level of Protection						
Row Labels	GIS Acres %					
Limited	206.21	1.91%				
None	156.57	1.45%				
Protected	10,432.67	96.61%				
Unknown	2.78	0.03%				
Grand Total	10,798.24	100.00%				

All Owner Types						
Owner Type GIS Acres %						
Land Trust	974.48	9.02%				
Municipal	4,344.22	40.23%				
Other	81.02	0.75%				
Private for profit	1,037.51	9.61%				
Private Non-profit	70.57	0.65%				
State	4,290.44	39.73%				
Grand Total	10,798.24	100.00%				

All APR & CR Lands							
Row Labels	GIS Acres	%					
APR	451.99	48.95%					
CR	471.34	51.05%					
Grand Total	923.33	100.00%					





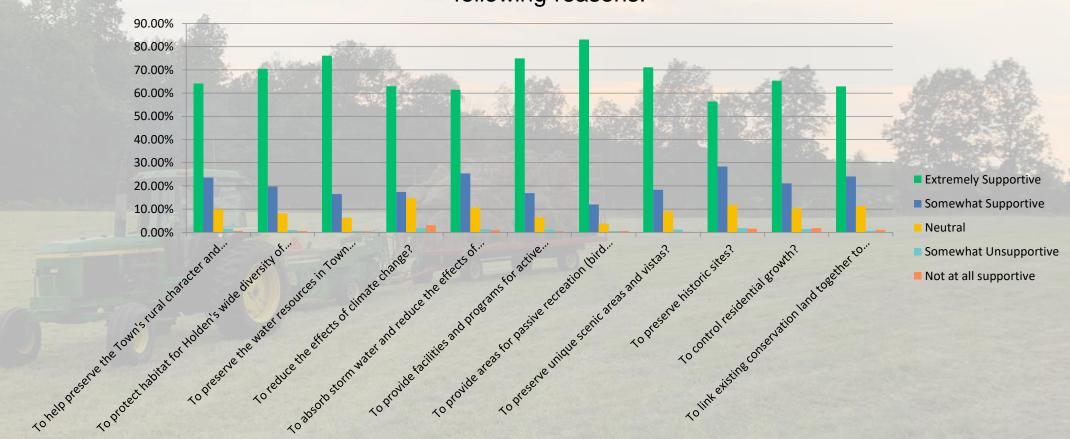


# COMMUNITY INPUT SURVEY METHODOLOGY

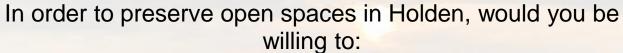
- Survey were available to take online via Survey Monkey
  - Paper copies were available at the Town Hall
- Survey was open from January 29, 2021 through March 31, 2021
- The survey was advertised online via the Town Website,
   Facebook pages, email blasts, and virtual newsletters
- A total of 495 responses were received

# How strongly do you support protecting and/or acquiring land for the following reasons?

How strongly do you support Holden protecting and/or acquiring land for the following reasons:



#### Would you be willing to...





# What are your favorite open spaces or recreational facilities in Holden?

- Oak Hill Land Trust
- Central Mass Rail Trail\*\*\*\*\*\*\*\*\*
- Trout Brook\*\*\*\*\*\*\*\*
- Mill Street Bike Trails
- Dawson Rec/Pond\*\*\*
- Davis Hill\*\*\*\*\*
- Eagle Lake\*\*\*\*
- White Oak Properties

- Holden pool and playground
- Maple Spring Pond
- Poutwater Pond
- Quinapoxet
- Echo Lake
- Wachusett Regional High School
- River Street Trail

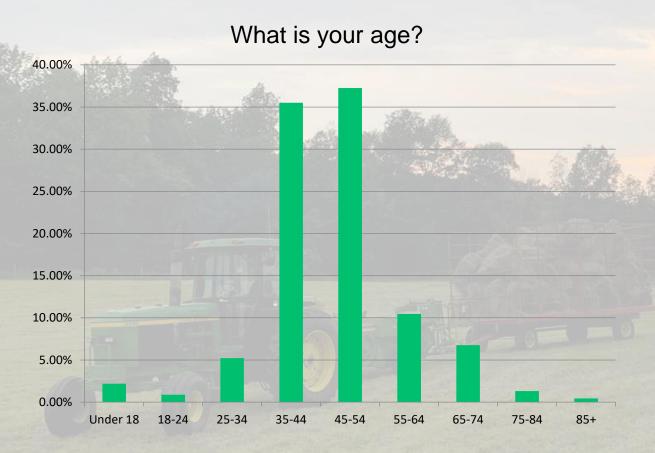
# Do you have any suggestions for how these open spaces or recreational facilities can be improved?

- Restore trails in Holden Town Forest
- More mountain biking trails
- Clean brush, debris, garbage at open spaces/recreational fields
- Need lighted turf field
- Want skate park
- Longer hours at pool

Do you regularly travel to any other communities for open space and/or recreational opportunities? Please list community and the activity for which you travel there for.

kids Shrewsbury Dean park Reservoir Mt Wachusett Walking biking Princeton Westminster SWIMMING walking track Wachusett walking paths Wachusett Mountain Hiking running access Marlboro SOCCEr better go regularly skate park Northborough Rutland State Park path turf fields various fields bicycling travel picnics Princeton hiking lacrosse park Leominster state forest boylston rail trail Clinton rail trail Acton Paxton Barre Sterling soccer fields Princeton beach Walking track Rutland dogs hiking Holden West Boylston Comet pond Worcester Worcester dog park playground lake Yes skiing biking spencer West Boylston Rail mountain trails baseball towns communities Rutland rail trail running hiking trails outdoor fishing Brookfields West Boylston Rutland use Hubbardston roads mountain biking Audobon kayaking Gardner Auburn surrounding towns State park dog park Moore State Park travel communities Shrewsbury frisbee golf Marlborough st park Leominster Northboro

#### Demographics



#### Do you have children under the age of 18 living with you?



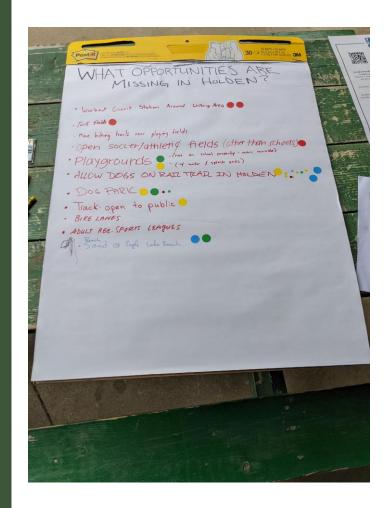


#### WALKSHOP

- Held on Saturday, June 12, 2021 from 9:00 11:00 am at Trout Brook
- Residents and other stakeholders stopped by to learn more about the OSRP planning process and to leave their ideas for potential open space and recreation improvements
- Maps and posterboards were dispersed around Trout Brook to allow attendees to view resources, mark up maps, and list suggestions
- Coffee and donuts were provided, and calendars were raffled off
- A total of 32 residents and/or stakeholders attended the Walkshop











#### HOLDEN OPEN SPACE AND RECREATION PLAN GOALS

- 1. Preserve Open Space and Natural Areas in Holden, Including Water, Agricultural, Wildlife, Wetlands, Scenic Vistas, Unique Natural Areas, Historical Sites, and Cultural Resources
- 2. Provide Active Recreation Resources and Facilities in Holden
- 3. Promote Passive Recreation and Open Space Resources
- 4. Develop and Implement Funding Sources and Partnerships

GOAL	GOAL 1: Preserve Open Space and Natural Areas in Holden, Including Water, Agricultural, Wildlife, Wetlands, Scenic Vistas, Unique Natural Areas, Historical Sites, and Cultural Resources								
#	Objective	Action	Responsible Party	Priority	Timing	Funding Source			
		Research and identify historical sites in Town that need to be preserved	Historic Commission	Low	Ongoing	Town Staff LAND Grants			
1.1	Protect historic, cultural, and aesthetically valuable resources in Town	Determine whether to repair the dam to preserve Eagle Lake OR remove the dam to restore the natural habitat	Board of Selectmen	High	Short	Town Staff MVP Action Grant Land and Water Conservation Fund			
	resources in Town	Map historical and cultural resources in Town	Historic Commission Historic District Commission	Low	Ongoing	Town Staff CMRPC Services			
		Advertise historic and cultural resources to residents	Historic Commission	Low	Ongoing	Town Staff			
		Continue to identify, map, and protect vernal pools and other critical wildlife resources	Conservation Commission	Low	Ongoing	Town Staff MVP Action Grant CMRPC Services			
1.2	Protect wetlands, vernal pools, riparian zones, water resources, and rare wildlife habitat	Develop an education campaign to inform residents of invasive species, how to identify them, and how to safely remove them	Agricultural Commission	Medium	Ongoing	Town Staff  MVP Action Grant  Assistance from DCR and/or Worcester County Conservation  District			
		Continue to uphold the Wetlands Protection Act and wetland bylaws	Conservation Commission	Low	Ongoing	Town Staff			
		Establish an education campaign to inform and encourage residents to utilize Chapter 61, 61A, and 61B programs, Conservation Restrictions, and Agricultural Preservation Restrictions	Agricultural Commission	High	Ongoing	Town Staff MVP Action Grant Assistance from White Oak			
1.3	Foster community participation and collaboration in conservation and preservation efforts	Continue utilzing a scoring sheet to evaluate usefullness of lands for acquisition	Agricultural Commission Conservation Commission	Low	Ongoing	Town Staff Assistance from White Oak			
		Continue working with and supporting local land trusts	Agricultural Commission Conservation Commission	High	Ongoing	Town Staff Assistance from White Oak, GWLT, Mass Audubon, and/or the Trustees of Reservation			
	Preserve farmlands, forested areas, and the agricultural industry	Identify active and inactive agricultural parcels and promote continued/renewed productive agricultural usage	Agricultural Commission	Medium	Short	Town Staff LAND Grants MVP Action Grant			
1.4		Establish a curriculum in local schools about local farms, agriculture, and the benefits of locally produced foods	Agricultural Commission School Committee	Low	Ongoing	Town Staff MVP Action Grant Land and Water Conservation Fund			
		Enact a Bylaw to retain a specified amount of forested area and limit clear cutting	Board of Selectmen Planning Board	High	Short	Town Staff			

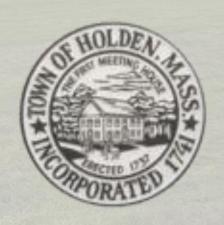
GOA	GOAL 2: Provide Active Recreation Resources and Facilities in Holden						
#	Objective	Action	Responsible Party	Priority	Timing	Funding Source	
2.1	Preserve, maintain, and upgrade existing fields, parks and recreational facilities	Develop a maintenance plan for existing parks and sports fields	Recreation Department DPW	High	Ongoing	Town Staff	
2.1		Upgrade the playground at Eagle Lake and make it handicap accessible	Recreation Department DPW	High	Short	Town Staff PARC Grant ADA Improvement Grant	
		Strategize plan to construct a turf field with lights and covered or indoor elements	Recreation Department Board of Selectmen	High	Medium	Town Staff PARC Grant Assistance from Holden Youth Soccer	
	expand active recreation opportunities by developing new active ecreation fields and facilities to meet expanding youth and adulneeds in Town	Construct a futsal court with lines for pickleball	Recreation Department	Medium	Short	Town Staff PARC Grant	
1 2 2 "		Establish more adult sports and rec leagues such as dodgeball, kickball, women's softball, and running groups	Recreation Department	High	Short	Town Staff	
2.2 1		Work with Holden Youth Soccer league for construction of the soccer fields that were permitted abutting Mayo School	Recreation Department	High	Short	Town Staff	
		Work with Holden Youth Baseball League to determine feasibility of constructing the permitted new baseball field at the Chaffins Recreation Area	Recreation Department	High	Short	Town Staff	
		Construct a skate park and/or ice skating rink	Recreation Department Town Manager	High	Medium	Town Staff PARC Grant	
		Establish an annual tennis tournament	Recreation Department	Medium	Short	Town Staff	
2.3	resources/facilities	Develop informational materials regarding the facilities and fields available to rent	Recreation Department	High	Ongoing	Town Staff Planning Assistance Grant	
		Create an online calendar that shows availability of rental facilities and allows online reservations	Recreation Department	Medium	Ongoing	Town Staff	

GOAL	3: Promote Passive Recreation and Open Space Resources					
#	Objective	Action	Responsible Party	Priority	Timing	Funding Source
	Expand on or improve passive recreation and open space opportunities in	Construct a dog park	Recreation Department	High	Short	Town Staff PARC Grant
		Install nature viewing blinds at appropriate locations around Town	Recreation Department	Medium	Short	Town Staff
3.1		Install a fee-for-use kayak rack at appropriate locations around Town	Recreation Department	Low	Long	Town Staff
3.1	Town	Investigate the possibility of installing a hunting blind in Town	Recreation Department	Medium	Short	Town Staff Planning Assistance Grants
		Appoint an Implementation Committee or a standing Open Space Committee to ensure the implementation of the goals in this plan	Board of Selectmen	High	Short	Town Staff
		Continue to support the goals of, work cooperatively with, and promote the activities of the Holden Community Garden	Conservation Commission	High	Ongoing	Town Staff
3.2	Increase utilization and awareness of open space and passive recreation	Install an information kiosk at Trout Brook	Conservation Commission	Medium	Short	Town Staff MassTrails Grant Land and Water Conservation Fund
	resources	Work with schools, Boy Scouts, and Girl Scouts to improve recreation and open space resources	Conservation Commission	Medium	Ongoing	Town Staff
		Utilize the Town website, social media, newletters, and alerts to advertise open space and recreation resources/events	Town Manager	Medium	Short	Town Staff Planning Assistance Grants
		Develop a Town-wide Trail Connection Plan	Recreation Department	Medium	Medium	Town Staff MassTrails Grant CMRPC Services Land and Water Conservation Fund
		Improve and expand bike trails and on-road bike lanes	Recreation Department	Medium	Long	Town Staff Planning Assistance Grants
		Investigate the possibility of removing the dog restriction along the Holden side of the Rail Trail	Recreation Department	High	Short	Town Staff
3.3	Promote and maintain greenways including nature trails, bike trails, hiking areas, and cross-country ski trail areas on open space/conservation parcels	Continue to support the Wachusett Greenways	Town Manager Finance Committee	Low	Ongoing	Town Staff
		Create a comprehensive trail brochure identifying access points, trail connections, and types of trail systems	Recreation Department	High	Short	Town Staff CMRPC Services MassTrails Grant
		Install trail markings and signage to existing trail systems where necessary	Conservation Commission	High	Short	Town Staff MassTrails Grant Land and Water Conservation Fund
		Construct a walking track with fitness circuit stations surrounding the walking area	Board of Selectmen Recreation Department	Medium	Medium	Town Staff MassTrails Grant Land and Water Conservation Fund
		Develop dedicated cross-country skiing trails	Recreation Department	Low	Short	Town Staff MassTrails Grant Land and Water Conservation Fund

GOAI	L 4: Develop and Implement Funding Sou	rces and Partnerships				
#	Objective	Action	Responsible Party	Priority	Timing	Funding Source
		Encourage private monetary gifts or donations of land	Board of Selectmen Board of Selectmen	Low	Ongoing	Town Staff
4.1 E	explore funding options from private stakeholders	Seek donations of services to support the ideas in this action plan	Conservation Commission Recreation Department Agricultural Commission		Ongoing	Town Staff
		Encourage private landowners to put land under a Conservation Restriction or Agricultural Preservation Restriction	Conservation Commission Agricultural Commission		Ongoing	Town Staff Planning Assistance Grants
		Utilize Town events and tourism activities to bring in donations to the Town	Board of Selectmen	Medium	Ongoing	Town Staff
		Encourage self-supporting and income-generating strategies through fee for service programs	Board of Selectmen Recreation Department	Medium	Ongoing	Town Staff Planning Assistance Grants
		Install a "For Rent" sign at Trout Brook	Recreation Department	Low	Short	Town Staff
	Utilize existing funding and grant programs	Utilize creative conservation developments to fund preservation	Board of Selectmen Planning Board Conservation Commission	Low	Ongoing	Town Staff
4.2		Research Division of Conservation Services grant programs and identify which action items in this plan might qualify for funding	Recreation Department Conservation Commission Board of Selectmen	Medium	Short	Town Staff CMRPC Services
		Research other State and Federal grant programs and identify which action items in this plan might qualify for funding	Recreation Department Conservation Commission Board of Selectmen	Medium	Short	Town Staff CMRPC Services
		Establish an Infrastructure Investment Fund	Board of Selectmen	Low	Short	Town Staff
		Increase partnership with GWLT and White Oak	Recreation Department	High	Ongoing	Town Staff Assistance from GWLT and White Oak
4.3	Develop partnerships with local and regional	Explore partnership with Chaffin's Recreation Association	Recreation Department	Medium	Short	Town Staff Assistance from Chaffin's Recreation Association
		Research and take advantage of Regional Sharing initiatives	Board of Selectmen	Medium	Short	Town Staff CMRPC Services
		Develop a partnership with local schools and youth groups to aid in Town projects	Board of Selectmen Recreation Department	High	Ongoing	Town Staff



# QUESTIONS?









### Thank you!

Any questions? <a href="mailto:dmarini@cmrpc.org">dmarini@cmrpc.org</a>



## TOWN OF HOLDEN MASSACHUSETTS OFFICE OF THE TOWN MANAGER

April 25, 2022

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

Re: Holden Open Space and Recreation Plan 2021 Update

Dear Ms. Cryan,

I am writing to express the Holden Board of Selectmen's support of the Town of Holden's 2021 Open Space and Recreation Plan. On December 6, 2021 the Open Space and Recreation Committee gave the Board a presentation of the year long process undertaken to update the 2012 Open Space and Recreation Plan. The Board was impressed by the Committee's creativity to conduct public outreach utilizing online surveys and outdoor walkshop events that were carefully planned to accommodate restrictions during the COVID-19 pandemic. This outreach was a vital component in achieving the Board of Selectmen's goals to advance the recreational opportunities for all demographics in the Town.

The Selectboard Board was in unanimous support of the plan, and look forward to being involved in the Plan's implementation over the next seven years. If you have any questions or require additional information please contact Pamela Harding, Director of Planning and Development at (508) 210-5541.

Sincerely,

Chiara Barnes Board of Selectmen, Chairman



#### Pamela Harding Director

#### TOWN OF HOLDEN MASSACHUSETTS

HOLDEN PLANNING BOARD

March 21, 2022

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

Re: Holden Open Space and Recreation Plan 2021 Update

Dear Ms. Cryan,

I am writing to express the Holden Planning Board's support of the Town of Holden's 2021 Open Space and Recreation Plan. On November 23, 2021 the Open Space and Recreation Committee gave the Holden Planning Board a presentation of the year long process undertaken to update the 2012 Open Space and Recreation Plan. The Holden Planning Board was impressed of the Committee's creativity to conduct public outreach utilizing online surveys and outdoor walkshop events that were carefully planned to accommodate restrictions during the COVID-19 pandemic.

The Holden Planning Board was in unanimous support of the plan particularly the goals and objectives and look forward to being involved in the Plan's implementation over the next seven years. If you have any questions or require additional information please contact Pamela Harding, Director of Planning and Development at (508) 210-5541.

Sincerely,

Scott Carlson, Chair Holden Planning Board



1 Mercantile Street – Suite 520 Worcester, MA 01608 508.756.7717 P 508.792.6818 F www.cmrpc.org

Melissa Cryan Division of Conservation Services Executive Office of Energy and Environmental Affairs 100 Cambridge St., Ste. 900 Boston, MA 02114

May 1, 2022

RE: Town of Holden 2021 Open Space and Recreation Plan

Dear Ms. Cryan;

The Central Massachusetts Regional Planning Commission (CMRPC) is writing this letter in support of the Town of Holden and its recently completed <u>2021 Open Space & Recreation Plan</u>. The Town and its Open Space Committee (Committee) are to be commended for their hard work putting this Plan together.

The Committee and its consultant, the CMRPC, have done a very thorough job and the final document appears compliant with the standards for such plans as promulgated by your office. This plan highlights how Holden continues to be a desirable place to live and examines the demand and pressures associated with residential development. Holden has recognized the need to balance new development with the need to protect open space and enhance recreation opportunities. In particular, this Plan documents the continued public interest and municipal action to create a safe and comfortable environment for walkers, runners, and bikers. Additionally, this Plan acknowledges the public's desire to the preserve Holden's natural resources, improve its water supply, protect and promote its agriculture, and provide recreation opportunities for all demographics.

Holden's Open Space and Recreation Plan will provide the Town with the specific guidance and action steps needed to accomplish its goals and objectives. These goals and objectives, which have been informed by significant community input, are clearly laid out in this plan. This Plan also recognizes the need for partnerships with public and private entities to make its goals and objectives a reality. To this end, several local groups, such as land trusts and private land owners, are included in the plan and referenced in several objectives. Many of these partnerships are currently being pursued by the Conservation Commission, Planning Board, and Board of Selectmen.

Please consider this letter to be a demonstration of CMRPC's support for the Plan and the process used to develop it. The Town of Holden will be well-served by having a State-approved Open Space and Recreation Plan in order to plan for its recreation facilities and programs, as well as to preserve and protect its valuable open spaces and natural resources.

Sincerely,

Dani Marini

Associate Environmental Planner

Central Massachusetts Regional Planning Commission

#### WHITE OAK LAND CONSERVATION SOCIETY



POST OFFICE BOX 346, HOLDEN, MASSACHUSETTS 01520
TELEPHONE 1-774-345-9658
INFO@WHITEOAKTRUST.ORG ❖ WWW.WHITEOAKTRUST.ORG

March 18, 2022

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

RE: Town of Holden Open Space and Recreation Plan

Dear Melissa Cryan:

White Oak Land Conservation Society Inc. ("WOLCS") is a non-profit land trust in Holden, MA. We write to the Division of Conservation Services in support of the proposed update to the Town of Holden Open Space and Recreation Plan (OSRP). The OSRP's goals are consistent with those of WOLCS and will continue to foster collaboration among the Town, local non-profits and others in promoting protection and utilization of open space and healthy activities for all residents of Holden and the surrounding communities.

We urge the Division of Conservation Services to endorse the Town of Holden's OSRP and thereby assist in the ongoing collaborative efforts for the benefit of the community.

For the White Oak Land Conservation Society Board:

Paul J. McManus

Treasurer

pmcmanus@ecotecinc.com

Scott M. Morrison

Vice president

smorrison@ecotecinc.com



## TOWN OF HOLDEN MASSACHUSETTS OFFICE OF THE TOWN MANAGER

February 8, 2022

To Whom it May Concern,

This letter is to confirm that Stephanie King, Assistant Town Manager for Holden, serves as the ADA Coordinator for the Town of Holden.

Sincerely,

Peter Lukes

Town Manager



# TOWN OF HOLDEN MASSACHUSETTS OFFICE OF THE TOWN MANAGER

February 8, 2022

The Town of Holden's employment practices for recruitment, Personnel Actions, leave, administration, training, tests, medical exams/questionnaires, social and recreational programs, fringe benefits, collective bargaining agreements, and wage and salary administration, are in compliance with the Americans with Disabilities Act.

Stephanie King

**ADA** Coordinator

# TOWN OF HOLDEN ADA GRIEVANCE PROCEDURE

Adopted 2/23/93

The Town of Holden has adopted an internal grievance procedure providing for prompt and equitable resolution of complaints alleging any action prohibited by the U. S. Department of Justice regulating implementing Title II of the Americans with Disabilities Act. Title II states, in part, that "no otherwise qualified disabled individual shall, solely by reason of such disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination" in programs or activities sponsored by a public entity.

Complaints should be addressed to Assistant to Town Manager, ADA Coordinator, 1204 Main Street, Holden, MA 01520 (508-829-0226), who has been designated to coordinate ADA compliance efforts.

- 1. A complaint may be filed in writing or verbally, and must contain the name and address of the person filing it, and briefly describe the alleged violation of the regulations.
- 2. A complaint must be filed within 30 days after the complainant becomes aware of the alleged violation. (Processing of allegations of discrimination which occurred before this grievance procedure was in place will be considered on a case-by-case basis.)
- 3. An investigation, as may be appropriate, shall follow a filing of complaint. The investigation shall be conducted by the Assistant to the Town Manager and a representative of the ADA Committee. These rules contemplate informal but thorough investigations, affording all interested persons and their representatives, if any, an opportunity to submit evidence relevant to a complaint.
- 4. A written determination as to the validity of the complaint and a description of the resolution, if any, shall be issued by the ADA Coordinator and a copy forwarded to the complainant by Certified Mail/Return Receipt Requested no later than 10 working days after its filing.
- 5. The ADA Coordinator shall maintain the files and records of the Town of Holden relating to the complaints filed.
- 6. The complainant can request a reconsideration of the case in instances where he or she is dissatisfied with the resolution. The request for reconsideration should be made to the Town Manager within 20 days of receiving the decision.
- 7. The right of a person to a prompt and equitable resolution of the complaint filed hereunder shall not be impaired by the person's pursuit of other remedies such as the filing of an ADA complaint with the responsible federal department or agency. Use of this grievance procedure is not a prerequisite to the pursuit of other remedies.
- 8. These rules shall be construed to protect the substantive rights of interested persons to meet appropriate due process standards and to assure that the Town of Holden complies with the ADA and implementing regulations.

Adopted by unanimous vote of the ADA Committee on 2/23/93

Approved by: Holden Board of Selectmen Robert V. Johnson, Roy Fraser III, Joan C. Carlson, Todd L. Shimkus, Frederick M. Misilo Jr. as amended March 8, 1993

# **SAMPLE GRIEVANCE POLICY For the General Public**

# EQUAL ACCESS TO FACILITIES AND ACTIVITIES

Maximum opportunity will be made available to receive citizen comments, complaints, and/or to resolve grievances or inquiries.

# STEP 1:

The Town manager will be available to meet with citizens and employees during business hours.

When a complaint, grievance, request for program policy interpretation or clarification is received either in writing or through a meeting or telephone call, every effort will be made to create a record regarding the name, address, and telephone number of the person making the complaint, grievance, program policy interpretation or clarification. If the person desires to remain anonymous, he or she may.

A complaint, grievance, request for program policy interpretation or clarification will be responded to within ten working days (if the person making the complaint is identified) in a format that is sensitive to the needs of the recipient, (i.e. verbally, enlarged type face, etc).

Copies of the complaint, grievance, request for program policy interpretation or clarification and response will be forwarded to the appropriate town agency (i.e. park commission, conservation commission). If the grievance is not resolved at this level it will be progressed to the next level.

# STEP 2:

A written grievance will be submitted to the Town Manager. Assistance in writing the grievance will be available to all individuals. All written grievances will be responded to within ten working days by the Town Manager in a format that is sensitive to the needs of the recipient, (i.e. verbally, enlarged type face, etc.). If the grievance is not resolved at this level it will be progressed to the next level.

### STEP 3:

If the grievance is not satisfactorily resolved, citizens will be informed of the opportunity to meet and speak with the Board of Selectmen, with whom local authority for final grievance resolution lies.

# HANDICAP ACCESSIBILITY IN HOLDEN SELF-EVALUATION/TRANSITION PLAN - PROGRAMS/FACILITIES

# TITLE I (PERSONNEL)

# 1. Oversight

In accordance with Chapter 406 of the Acts of 1951 (Town Manager Charter), the Town Manager is the sole hiring authority in the Town of Holden, except that the Board of Selectmen hire the Town Manager and the schools hire their Department heads may conduct interviews and make recommendations to the Town Manager prior to final appointment. no Personnel Board in the Town; nor is there a Personnel By-Law.

# 2. Rules and Regulations

A formalized set of personnel rules and regulations, entitled "Town of Holden Personnel Manual", is in use by the Town. In addition, the Town follows standard personnel practices as set forth in the language of three union employment contracts. The existing union contracts contain no language which discriminates against individuals with disabilities, nor does the Light duty language is contained within the union Personnel Manual. In addition, the Town has made every effort to accommodate employees who have been disabled during the tenure of their employment, thereby assuring a continued employment opportunity.

### 3. Hiring **Practices**

Employment positions within the Town are either covered by Civil Service and follow standard Civil Service hiring practices, or follow the procedure set forth in the Personnel Manual. There exists no evidence, either written or otherwise, that discriminatory practices are employed by the Town in hiring Application forms for employment used by the Town contain no language which could be construed as being discriminatory towards individuals with disabilities.

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# HANDICAP ACCESSIBILITY IN HOLDEN SELF-EVALUATION/TRANSITION PLAN - PROGRAMS/FACILITIES

# 4. Job Descriptions

Job descriptions for Town positions are written. The level of detail for all job descriptions is excellent. The job responsibilities are not divided into those considered to be essential versus non-essential. There is no language in the job descriptions which could be reasonably construed as discriminatory against individuals with disabilities.

### 5. Work Sites

Review and assessment of the work sites for all municipal employees was completed for the facilities covered within this report. Few work sites could easily accommodate a disabled individual who uses a wheelchair. No specialized office equipment for use by disabled employees currently is owned or used by the Town, with the exception of the TDD in the Library. This TDD has been advertised as and is used as a central processing unit for communicating with all town departments. The Town is in the process of purchasing an assisted listening device for use at public meetings. TDDs will be introduced into the public safety departments during the installation of a regionalized 911 response program.

# **RECOMMENDATIONS:**

# **COMPLIANCE GUIDELINES**

The following is an excerpt from the Title I regulations:

"Employers with 15 or more employees may not discriminate against qualified individuals with disabilities. Employers must reasonably accommodate the disabilities of qualified applicants or employees, including modifying work stations and equipment, unless undue hardship would result.

The term "qualified individual with a disability" means an individual with a disability who, with or without reasonable accommodation, can perform the essential functions of the employment position that such individual holds or desires. For the purposes of this title, considerations shall be given to employer's judgment as to what functions of a job are essential, and if an employer has prepared a written description before advertising for the job. This description shall be considered evidence of the essential functions of the job.

The term <u>"reasonable accommodation"</u> may include: (A) making existing facilities used by employees readily accessible to and usable by individuals with disabilities; and (B) job restructuring, part-time or modified work

# HANDICAP ACCESSIBILITY IN HOLDEN SELF-EVALUATION/TRANSITION PLAN - PROGRAMS/FACILITIES

schedules, reassignment to a vacant position, acquisition or modification of equipment or devices, appropriate adjustment or modification of examinations, training materials or policies, the provision of qualified readers or interpreters, and other similar accommodations for individuals with disabilities.

In general, the term <u>"undue hardship"</u> means:

- (A) an action requiring significant difficulty or expense, when considered in light of the factors set forth in subparagraph (B).
- (B) factors to be considered in determining whether an accommodation would impose an undue hardship on a covered entity include:
- (i) the nature and cost of the accommodation needed under this Act;
- (ii) the overall financial resources of the facility or facilities involved in the provision of the reasonable accommodation; the number of persons employed at such facility; the effect on expenses and resources, or the impact or otherwise of such accommodation upon the operation of the facility;
- (iii) the overall financial resources of the covered entity; the overall size of the business of a covered entity with respect to the number of its employees, the number, type, and location of its facilities; and
- (iv) the type of operation or operations of the covered entity including the composition, structure, and functions of the work force of such entity; the geographic separateness, administrative, or fiscal relationship of the facility or facilities in question to the covered entity."
- 1. Despite the absence of any written hiring procedure in the Town which overtly discriminates against individuals disabilities, the Town could enhance its position of compliance by adopting a simple statement which declares its non-An example of such a statement is as follows: discrimination.

"The Town of Holden, in conformance with Title I of the Americans with Disabilities Act, hereby declares that it will not against qualified individuals with disabilities in the discriminate practice of its employment decisions (i.e. application process, employment, compensation, advancement or discharge, and other conditions of employment)."

Such a statement should be made by the Town Manager in order to cover all employees hired who work for the Town general government. This statement should be made after consultation with effected union representatives, if applicable. declaration should then be posted in a conspicuous place in the Town where other such postings are displayed.

# HANDICAP ACCESSIBILITY IN HOLDEN SELF-EVALUATION/TRANSITION PLAN - PROGRAMS/FACILITIES

2. The Town, in its hiring practices, should refrain from asking questions in the interview process, their interview questionnaires, or subsequent to an employee's hire, which relate to a candidate's or employee's disability, whether said disability is apparent or not apparent. This practice will mitigate actual or the appearance of discrimination against individuals with disabilities. Questions may be asked regarding a candidate's or an employee's ability to perform an essential job component written in the job specifications. Candidates may be asked to demonstrate their ability to perform any such essential component. If performance of such a task requires a special device or accommodation in order to be performed properly, a determination must be made by the employer if the provision of such a device or accommodation provides the employer an undue hardship as defined above.

The Town should distribute to department heads and all other potential interviewers a guideline for interview questions. Periodically, this guideline should be reviewed with all individuals in Town who perform interviews to assure compliance.

3. Given the lack of accessible work environments throughout the Town and the numerous and diverse accommodations to the work environment which may be necessary in employment or hiring issues, the Town should undertake compliance by testing for "undue hardship" in each hiring or other employment related case as it arises. Modifications can then be made according to actual employment needs.

An individual who uses a wheelchair and has a For example: hearing impairment applies for a position in one of the offices of the Town Hall. He/She is as "otherwise qualified" as the other The Town would then be obliged to see applicants for the position. if the accommodations necessary to allow this individual to function effectively in the work place, would represent an "undue Would the physical changes to the work hardship" upon the Town. place, in order to be accessible for a wheelchair, be expensive? Would the addition of a TDD to allow communication with the employee's children at home be prohibitively expensive? hiring an interpreter to assist the employee's minute taking at meetings be too expensive? Could certain of the duties of the position be re-assigned to other individuals in the work force? The Town would, by asking questions such as these, and assessing its fiscal capabilities of meeting the accommodations required, make an informed decision whether or not hiring this particular individual would cause an "undue hardship".

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# HANDICAP ACCESSIBILITY IN HOLDEN SELF-EVALUATION/TRANSITION PLAN - PROGRAMS/FACILITIES

- 4. The Town should consider mentioning in each of its advertisements for available positions that accommodations for individuals with disabilities will be made for interview or testing.
- 5. The Town should enter into a contract with a sign language interpreter in order to have said service available upon public request at public meetings. Availability of said service should be advertised in conjunction with the standard meeting notice of, at a minimum, all Town Meetings.

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# Facility Inventory

# LOCATION: DAWSON RECREATION AREA

ACTIVITY	EQUIPMENT	NOTES						
ACTIVITI	EQUIFMENT	Located adjacent to accessible paths YES						
		Access to Open Spaces YES						
	Tables & Benches	Back and Arm Rests YES, NO						
	BENCHES	Adequate number YES						
Picnic Facilities		Height of Cooking Surface						
	Grills NO	Located adjacent to accessible paths						
vec	Trash Cans YES	Located adjacent to accessible paths						
YES	Trasti Caris TES	Located adjacent to accessible paths						
	Picnic Shelters	Located near accessible water fountains, trash can, restroom,						
	NO	parking, etc.						
		Surface material						
		Dimensions Rails						
Trails								
NO		Signage (for visually impaired)						
		Entrance						
	Pools YES	Location from accessible parking YES						
		Safety features i.e. warning for visually impaired						
Swimming Facilities		Location from accessible path into water YES						
3		Handrails NO						
	Beaches YES	Location from accessible parking YES						
		Shade provided YES						
	All Play Equipment i.e. swings,							
<b>D</b> I 4 (1.11-1-1)	slides	Same experience provided to all YES						
Play Areas (tot lots)	Access Routes	Located adjacent to accessible paths YES						
YES		Enough space between equipment for wheelchair YES						
		Located adjacent to accessible paths YES						
Game Areas: YES	Access Routes	Berm cuts onto courts						
*ballfield	Equipment	Height						
*basketball		Dimensions						
*tennis		Spectator Seating NO						
D 1 D - 1 - 10	A Davidas	Located adjacent to accessible paths						
Boat Docks NO	Access Routes	Handrails						
	A Poutos	Located adjacent to accessible paths						
	Access Routes	Handrails						
		Arm Rests						
Fishing Facilities NO		Bait Shelves						
	Equipment	Handrails						
		Fish Cleaning Tables						
		Learn-to-Swim YES						
Programming	Are special programs at your facilities accessible? YES	Guided Hikes NO						
		Interpretive Programs NO						
Services and Technical		ative formats i.e. for visually impaired						
Assistance NO	Process to request interpretive	services (i.e. sign language interpreter) for meetings						
	1							

LOCATION							
PARKING			Paguirad Accessible Spaces				
Total Spaces		Required Accessible Spaces					
Up to 25		1 space					
26-50		2 spaces					
51-75		3 spaces					
76-100		4 spaces					
101-150 X		5 spaces (8 provided)					
151-200	-	6 spa	ces				
201-300		7 spa					
301-400		8 spa	and the same of th				
401-500		9 spa					
	V		Comments/Transition Notes				
Specification for Accessible Spaces	Yes	No	Comments/ Transition Notes				
Accessible space located closest to accessible entrance	Х						
Where spaces cannot be located within 200 ft of	х						
accessible entrance, drop-off area is provided within							
100 ft.			,				
Minimum width of 13 ft includes 8 ft space plus 5 ft	Х						
access aisle	^						
Van space - minimum of 1 van space for every							
accessible space, 8 ft wide plus 8 ft aisle. Alternative	Х						
is to make all accessible spaces 11 ft wide with 5 ft							
aisle.							
Sign with international symbol of accessibility at each	X						
space or pair of spaces	^						
Sign minimum 5 ft, maximum 8 ft to top of sign	X						
Sign minimum 5 ft, maximum 6 ft to top of sign	^						
Surface evenly paved or hard-packed (no cracks)	Х						
Surface slope less than 1:20, 5%	Х						
Colored to a state of the state							
Curbcut to pathway from parking lot at each space or pair of spaces, if sidewalk (curb) is present	X						
Curbcut is a minimum width of 3 ft, excluding sloped sides, has sloped sides, all slopes not to exceed 1:12, and textured or painted yellow	X						
		<u> </u>					
	T V = -	A/-	Comments (Transition Notes				
Specification	Yes	No	Comments/Transition Notes				
Slope Maximum 1:12	X						
Minimum width 4 ft between handrails	Х						
Handrails on both sides if ramp is longer than 6 ft	X	T					
Handrails at 34" and 19" from ramp surface	X						
Handrails extend 12" beyond top and bottom	X						
Handgrip oval or round	- T	<del> </del>					
Handgrip smooth surface	X	+					
	X						
Handgrip diameter between 1¼" and 2"	Х						
Clearance of 1½" between wall and wall rail	X						
Non-slip surface	Х						
Level platforms (4ft x 4 ft) at every 30 ft, at top, at bottom, at change of direction	n/a						

LOCATION SITE ACCESS, PATH OF TRAVEL, ENTRANCES						
Specification	Yes	No	Comments/Transition Notes			
Site Access YES		7.0				
Accessible path of travel from passenger disembarking area and parking area to accessible entrance	Х					
Disembarking area at accessible entrance	Χ					
Surface evenly paved or hard-packed	X					
No ponding of water	Х					
Path of Travel YES		l				
Path does not require the use of stairs		Х				
Path is stable, firm and s lip resistant	Х					
3 ft wide minimum	X					
Slope maximum 1:20 (5%) and maximum cross pitch is 2% (1:50).	X					
Continuous common surface, no changes in level greater than ½ inch	X					
Any objects protruding onto the pathway must be detected by a person with a visual disability using a cane	Х					
Objects protruding more than 4" from the wall must be within 27" of the ground, or higher than 80"	X					
Curb on the pathway must have curb cuts at drives, parking and drop-offs	Х					
Entrances						
Primary public entrances accessible to person using wheelchair, must be signed, gotten to independently, and <i>not</i> be the service entrance	X					
Level space extending 5 ft. from the door, interior and exterior of entrance doors	х					
Minimum 32" clear width opening (i.e. 36" door with standard hinge)	Х					
At least 18" clear floor area on latch, pull side of door	X					
Door handle no higher than 48" and operable with a closed fist	X					
Vestibule is 4 ft plus the width of the door swinging into the space	n/a					
Entrance(s) on a level that makes elevators accessible	n/a					
Door mats less than $\frac{1}{2}$ " thick are securely fastened						
Door mats more than ½" thick are recessed	n/a					
Grates in path of travel have openings of ½" maximum	Х					
Signs at non-accessible entrance(s) indicate direction to accessible entrance						
Emergency egress - alarms with flashing lights and audible signals, sufficiently lighted	Х					

LOCATION						
STAIRS and DOORS						
Specification	Yes	No	Comments/Transition Notes			
Stairs YES						
No open risers	X					
Nosings not projecting	Χ					
Treads no less than 11" wide	X					
Handrails on both sides	X					
Handrails 34"-38" above tread	Х					
Handrail extends a minimum of 1 ft beyond top and	Х					
bottom riser (if no safety hazard and space permits)						
Handgrip oval or round	X					
Handgrip has a smooth surface	Х					
Handgrip diameter between 1¼" and 1½"	X					
1½" clearance between wall and handrail	Х					
Doors						
Minimum 32" clear opening	Х					
At least 18" clear floor space on pull side of door	Х					
Closing speed minimum 3 seconds to within 3" of	Х					
the latch						
Maximum pressure 5 pounds interior doors	X					
Threshold maximum 1/2" high, beveled on both sides	X					
Hardware operable with a closed fist (no	Х					
conventional door knobs or thumb latch devices)						
Hardware minimum 36", maximum 48" above the	X					
floor						
Clear, level floor space extends out 5 ft from both	Х					
sides of the door						
Door adjacent to revolving door is accessible and	n/a					
unlocked						
Doors opening into hazardous area have hardware	X					
that is knurled or roughened						

LOCATION RESTROOMS - also see Doors and Vestibules No Comments/Transition Notes Yes Specification 5 ft turning space measured 12" from the floor Χ At least one Sink: Clear floor space of 30" by 48" to allow a forward Χ approach Mounted without pedestal or legs, height 34" to top Х Extends at least 22" from the wall Х Open knee space a minimum 19" deep, 30" width, Χ and 27" high Cover exposed pipes with insulation Χ Faucets operable with closed fist (lever or spring Χ activated handle) At least one Stall: Accessible to person using wheelchair at 60" wide Х by 72" deep Stall door is 36" wide Χ Stall door swings out Χ Stall door is self closing Χ Stall door has a pull latch Х Lock on stall door is operable with a closed fist, and Х 32" above the floor Coat hook is 54" high X Toilet

Fixtures					
Toilet paper dispenser is 24" above floor	X		 		
One mirror set a maximum 38" to bottom (if tilted, 42")	Х		 	- w	
Dispensers (towel, soap, etc) at least one of each a maximum 42" above the floor	X				

X

Х

Х

Χ

Χ

Х

Х

Х

Х

NOTES

18" from center to nearest side wall

Top of seat 17"-19" above the floor

Acid-etched or roughened surface

On back and side wall closest to toilet

Located 30" above and parallel to the floor

wall or fixture

Grab Bars

42" long

1¼" diameter

1½" clearance to wall

42" minimum clear space from center to farthest

LOCATION FLOORS, DRINKING FOUNTAINS, TELEPHONES Comments/Transition Notes No Specification Floors Non-slip surface X Carpeting is high-density, low pile, non-absorbent, n/a stretched taut, securely anchored Corridor width minimum is 3 ft Χ Objects (signs, ceiling lights, fixtures) can only Х protrude 4" into the path of travel from a height of 27" to 80" above the floor Drinking Fountains NO Spouts no higher than 36" from floor to outlet Hand operated push button or level controls Spouts located near front with stream of water as parallel to front as possible If recessed, recess a minimum 30" width, and no deeper than depth of fountain If no clear knees pace under neath, clear floors pace 30" x 48" to allow parallel approach Telephones NO Highest operating part a maximum 54" above the floor Access within 12" of phone, 30" high by 30" wide Adjustable volume control on headset so identified SIGNS, SIGNALS, AND SWITCHES Comments/Transition Notes Yes No Specification Switches, Controls and Signs Switches and controls for light, heat, ventilation, Χ windows, fire alarms, thermostats, etc, must be a minimum of 36" and a maximum of 48" above the floor for a forward reach, a maximum of 54" for a side reach Electrical outlets centered no lower than 18" above Χ the floor Warning signals must be visual as well as audible Signs Mounting height must be 60" to centerline of the Х Within 18" of door jamb or recessed Χ Letters and numbers a t least 11/4" high Χ Letters and numbers raised .03" Letters and numbers contrast with the background color

LOCATION

Specification	Yes	No	Comments/Transition Notes
Ramp at least 34" wide with a non-slip surface extending into the shallow end, slope not exceeding 1:6 with handrails on both sides	Х		
Lifting device	Χ		
Transfer area 18" above the path of travel and a minimum of 18" wide	X		
Unobstructed path of travel not less than 48" wide around pool	Х		
Non-slip surface	X		

# LOCATION

LOCATION							
SHOWER ROOMS - Showers must accommodate both wheel-in and transfer use							
Specification	Yes	No	Comments/Transition Notes				
Stalls 36" by 60" minimum, with a 36" door opening	Χ						
Floors are pitched to drain the stall at the corner farthest from entrance	X						
Floors are non-slip surface	Χ						
Controls operate by a single lever with a pressure balance mixing valve	Х						
Controls are located on the center wall adjacent to the hinged seat	X						
Shower heads attached to a flexible metal hose	X						
Shower heads attached to wall mounting adjustable from 42" to 72" above the floor	Х						
Seat is hinged and padded and at least 16" deep, folds upward, securely attached to side wall, height is 18" to the top of the seat, and at least 24" long	X						
Soap trays without handhold features unless they can support 250 pounds	Х						
2 grab bars are provided, one 30" and one 48" long, or one continuous L shaped bar	Х						
Grab bars are placed horizontally at 36" above the floor line	X						

# LOCATION

PICNICKING						
Specification	Yes	No	Comments/Transition Notes			
A minimum of 5% of the total tables must be accessible with clear space under the table top not less than 30" wide and 19" deep per seating space and not less than 27" clear from the ground to the underside of the table. An additional 29" clear space (totaling 48") must extend beyond the 19" clear space under the table to provide access	X					
For tables without toe clearance, the knee space under the table must be at least 28" high, 30" wide and 24" deep.	Х					
Top of table no higher than 32" above ground	Х					
Surface of the clear ground space under and around the table must be stable, firmand slip-resistant, and evenly graded with a maximum slope of 2% in all directions	Х					
Accessible tables, grills and fire rings must have clear ground space of at least 36" around the perimeter	Х					

# References and Resources

Adaptive Environments, 180-200 Portland Street, Suite 1, Boston, MA 02214. (617) 695-1225 (v/tty). Online at www.adaptenv.org.

DC 20036. (202) 293.8020; Fax: (202) 293.9287. Online at www.ansi.org American National Standards Institute, 1819 L Street, NW, Washington,

The Access Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004-1111. (202) 272-0080 (v), (202) 272-0082 (tty), (202) 272-0081 (fax). Federal standards online at www.accessooard.gov/adaag/html/adaag.htm. Massachusetts Architectural Access Board, One Ashburton Place, Room 1310, Boston, MA 02108. (617) 727-0660 (v), (617) 727-0019 (tty), (617) 727-0665 (fax). State standards online at

www.state.ma.us/aab/aab\_regs.htm.

Boston, MA 02108. (617) 727-7440 or (800) 322-2020 (voice and TTY), Massachusetts Office on Disability, One Ashburton Place, Room 1305, (617) 727-0965 (fax). Online at www.mass.gov/mod. National Center on Accessibility, 501 North Morton Street, Bloomington, IN 47404-3732. (812) 856-4422 (Voice), (812) 856-4421 (tty), (812) 856-4480 (Fax). Online at www.ncaonline.org.

# **Publications**

Recreation Facilities. U.S. Architecture and Transportation Compliance 36 CFR Part 1191: Americans with Disabilities Act Accessibility Guidelines; Board. Federal Register (September 3, 2002). Washington, D.C. www.access-board.gov/recreation/final.htm

Areas. U.S. Architecture and Transportation Compliance Board. Federal 36 CFR Part 1191: Americans with Disabilities Act Accessibility Guidelines; Play Register (November 20, 2002). Washington, D.C. www.accessboard.gov/play/finalrule.htm

ADA Transition Plan Workbook. Massachusetts State House Bookstore, State House, Room 116, Boston, MA 02133.

Americans With Disabilities Act Resource Guide for Park, Recreation, and Leisure Service Agencies, First Edition. Lynn M. Casciotti, Editor. National Recreation and Park Association, Arlington VA, 1992.

Americans with Disabilities Act, Public Law 226, 101st Congress. U.S. Government Printing Office, July 26, 1990.

Practices. Barbara McMillen (editor). U.S. Department of Transportation, Designing Sidewalks and Trails for Access: Review of Existing Guidelines and 1999. www.fhwa.dot.gov/environment/sidewalks/index.htm, www.fhwa.dot.gov/environment/sidewalk2/index.htm

Everyone's Nature: Designing Interpretation to Include All. Carol Hunter. Falcon Press Publishing Co., Inc., Helena, Montana, 1994.

Settings for All Children. Robin Moore et al. MIG Communications, 1992. Play for All Guidelines: Planning, Designing and Management of Outdoor Play

Reasonable Accommodation: Profitable Compliance with the Americans with Disabilities Act. Jay W. Spechler. St. Lucie Press, Delray Beach FL, 1996. Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People. American National Standards Institute, Inc., New York, 1980. The Americans with Disabilities Act: A Review of Best Practices. Timothy Jones. American Management Association Membership Publications Division, New York, 1993.

Universal Access to Outdoor Recreation: A Design Guide. PLAE, Inc., Berkeley CA, 1993. Universal Trail Assessment Coordinator Training Guide. P. Axelson et al. Pax Press, Santa Cruz, 1997. Facility Inventory

LOCATION: EAGLE LAKE RECREATION AREA

ACTIVITY	EQUIPMENT	NOTES				
		Located adjacent to accessible paths YES				
	Tables & Benches	Access to Open Spaces YES				
	Tables & Denenes	Back and Arm Rests YES, NO				
		Adequate number YES				
Picnic Facilities	Grills NO	Height of Cooking Surface				
ricine racines	GIIIIS INO	Located adjacent to accessible paths				
	Trash Cans YES	Located adjacent to accessible paths YES				
	-	Located adjacent to accessible paths				
	Picnic Shelters NO	Located near accessible water fountains, trash can, restroom,				
		parking, etc.				
	YES	Surface material Natural Ground/Wooded Trail				
Trails		Dimensions 4-feet wide average				
Traits		Rails NO				
		Signage (for visually impaired) NO				
		Entrance				
	Pools NO	Location from accessible parking				
		Safety features i.e. warning for visually impaired				
Swimming Facilities		Location from accessible path into water YES				
	Beaches YES	Handrails NO				
		Location from accessible parking YES				
		Shade provided YES				
DI (	All Play Equipment i.e. swings, slides	Same experience provided to all YES				
Play Areas (tot lots)	Access Routes	Located adjacent to accessible paths YES				
		Enough space between equipment for wheelchair YES				
	Access Routes	Located adjacent to accessible paths YES				
Game Areas: *ballfield		Berm cuts onto courts YES				
*basketball	Equipment	Height				
*tennis		Dimensions				
		Spectator Seating NO				
Dest Deste NO	Access Routes	Located adjacent to accessible paths				
Boat Docks NO	Access Routes	Handrails				
.,	Acces Deutes	Located adjacent to accessible paths				
	Access Routes	Handrails				
Fighting Factories		Arm Rests NO				
Fishing Facilities	1	Bait Shelves NO				
VEC	Equipment	Handrails NO				
YES		Fish Cleaning Tables NO				
		Learn-to-Swim NO				
Programming NO	Are special programs at your facilities accessible?	Guided Hikes NO				
		Interpretive Programs NO				
N.						
Services and Technical	Information available in alterna	ative formats i.e. for visually impaired				

LOCATION PARKING					
otal Spaces		Required Accessible Spaces			
Jp to 25 X		1 space X			
50		2 spaces			
75		3 spaces			
00		4 spaces			
101-150		5 spa			
151-200		6 spa			
201-300		7 spa			
301-400		8 spa			
401-500		9 spa			
	1/	<del></del>			
Specification for Accessible Spaces	Yes	No	Comments/Transition Notes		
Accessible space located closest to accessible entrance	Х				
Where spaces cannot be located within 200 ft of accessible entrance, drop-off area is provided within 100 ft.	Х				
Minimum width of 13 ft includes 8 ft space plus 5 ft access aisle	Х				
Van space - minimum of 1 van space for every accessible space, 8 ft wide plus 8 ft aisle. Alternative is to make all accessible spaces 11 ft wide with 5 ft aisle.	Х				
Sign with international symbol of accessibility at each space or pair of spaces		х			
Sign minimum 5 ft, maximum 8 ft to top of sign		Х			
Surface evenly paved or hard-packed (no cracks)	Х		,		
Surface slope less than 1:20, 5%	Х				
Curbcut to pathway from parking lot at each space or pair of spaces, if sidewalk (curb) is present	Х				
Curbcut is a minimum width of 3 ft, excluding sloped sides, has sloped sides, all slopes not to exceed 1:12, and textured or painted yellow	Х				
RAMPS NO					
Specification	Yes	No	Comments/Transition Notes		
Slope Maximum 1:12			Parking is flat surface without berm		
Minimum width 4 ft between handrails					
Handrails on both sides if ramp is longer than 6 ft					
Handrails at 34" and 19" from ramp surface					
Handrails extend 12" beyond top and bottom		-			
Handgrip oval or round					
Handgrip smooth surface		-			
וומוועצווף אוווטטנוו אנוומכב					
Handgrip diameter between 11/4" and 2"					
Clearance of 1½" between wall and wall rail					
Non-slip surface					
Level platforms (4ft x 4 ft) at every 30 ft, at top, at bottom, at change of direction					

LOCATION SITE ACCESS, PATH OF TRAVEL, ENTRANCES				
Specification	Yes	No	Comments/Transition Notes	
Site Access	, 00			
Accessible path of travel from passenger disembarking area and parking area to accessible entrance	X			
Disembarking area at accessible entrance	Х			
Surface evenly paved or hard-packed	X			
No ponding of water	X			
Path of Travel		`		
Path does not require the use of stairs		Х		
Path is stable, firm and s lip resistant	Х			
3 ft wide minimum	Χ			
Slope maximum 1:20 (5%) and maximum cross pitch is 2% (1:50).	Х			
Continuous common surface, no changes in level greater than $\frac{1}{2}$ inch	Х			
Any objects protruding onto the pathway must be detected by a person with a visual disability using a cane	Х			
Objects protruding more than 4" from the wall must be within 27" of the ground, or higher than 80"	X			
Curb on the pathway must have curb cuts at drives, parking and drop-offs	X			
Entrances				
Primary public entrances accessible to person using wheelchair, must be signed, gotten to independently, and <i>not</i> be the service entrance	Х			
Level space extending 5 ft. from the door, interior and exterior of entrance doors	Х			
Minimum 32" clear width opening (i.e. 36" door with standard hinge)	Х			
At least 18" clear floor area on latch, pull side of door	Х			
Door handle no higher than 48" and operable with a closed fist	n/a			
Vestibule is 4 ft plus the width of the door swinging into the space	n/a			
Entrance(s) on a level that makes elevators accessible	n/a			
Door mats less than $\frac{1}{2}$ " thick are securely fastened				
Door mats more than ½" thick are recessed	n/a			
Grates in path of travel have openings of ½" maximum	n/a			
Signs at non-accessible entrance(s) indicate direction to accessible entrance		х		
Emergency egress - alarms with flashing lights and audible signals, sufficiently lighted	X			

LOCATION	***		1000
STAIRS and DOORS			
Specification	Yes	No	Comments/Transition Notes
Stairs NO			
No open risers			
Nosings not projecting			
Treads no less than 11" wide			
Handrails on both sides			
Handrails 34"-38" above tread			
Handrail extends a minimum of 1 ft beyond top and			
bottom riser (if no safety hazard and space permits)			
Handgrip oval or round			
Handgrip has a smooth surface			
Handgrip diameter between 1¼" and 1½"			
1½" clearance between wall and handrail			
Doors YES			
Minimum 32" clear opening	Х		
At least 18" clear floor space on pull side of door	Х		
Closing speed minimum 3 seconds to within 3" of	Х		
the latch			
Maximum pressure 5 pounds interior doors	Х		
Threshold maximum ½" high, beveled on both sides	<u> </u>		
Hardware operable with a closed fist (no	X		
conventional door knobs or thumb latch devices)			
Hardware minimum 36", maximum 48" above the	X		
floor			
Clear, level floor space extends out 5 ft from both	X		
sides of the door	1		
Door adjacent to revolving door is accessible and	X		
unlocked			
Doors opening into hazardous area have hardware	X		
that is knurled or roughened			

RESTROOMS - also see Doors and Vestibules			
Specification	Yes	No	Comments/Transition Notes
5 ft turning space measured 12" from the floor	Χ		
At least one Sink:			
Clearfloorspace of 30" by 48" to allow a forward	Х		
approach	,,		
Mounted without pedestal or legs, height 34" to top	X		
of rim	•		
Extends at least 22" from the wall	Х		
Open knee space a minimum 19" deep, 30" width,	Х		
and 27" high			
Cover exposed pipes with insulation	Х		
Faucets operable with closed fist (lever or spring	Х		
activated handle)		ĺ	
At least one Stall:			
Accessible to person using wheelchair at 60" wide	Х		
by 72" deep			
Stall door is 36" wide	Х		
Stall door swings out	Х		
Stall door is self closing	Х		
Stall door has a pull latch	Х		
Lock on stall door is operable with a closed fist, and	Х		
32" above the floor			
Coat hook is 54" high	Х		
Toilet			
18" from center to nearest side wall	Х		
42" minimum clear space from center to farthest	X		
wall or fixture	ļ.		
Top of seat 17"-19" above the floor	X		
Grab Bars	·		
On back and side wall closest to toilet	Х		
1¼" diameter	X		
1½" clearance to wall	Х		
Located 30" above and parallel to the floor	X		
Acid-etched or roughened surface	Х		
42" long	X		
Fixtures			
Toilet paper dispenser is 24" above floor	X		
One mirror set a maximum 38" to bottom (if tilted, 42")	Х	1	
Dispensers (towel, soap, etc) at least one of each maximum 42" above the floor	a X		
The state of the s			

LOCATION			
FLOORS, DRINKING FOUNTAINS, TELEPHO	NES		
Specification	Yes	No	Comments/Transition Notes
Floors			
Non-slip surface	X		
Carpeting is high-density, low pile, non-absorbent,	n/a		
stretched taut, securely anchored	117 α		
Corridor width minimum is 3 ft	Χ		
Corridor Wider Illinimani is 5 TC	Α		
Objects (signs, ceiling lights, fixtures) can only			
protrude 4" into the path of travel from a height of	X		
27" to 80" above the floor			
Drinking Fountains NO			
Dilliking i dantams ino			
Spouts no higher than 36" from floor to outlet			
Hand operated push button or level controls			
Spouts located near front with stream of water as			
parallel to front as possible		-	
If recessed, recess a minimum 30" width, and no			
deeper than depth of fountain		-	
If no clear knees pace underneath, clear floorspace			
30" x 48" to allow parallel approach			
Telephones NO			
Highest operating part a maximum 54" above the			
floor			
Access within 12" of phone, 30" high by 30" wide			
Adjustable volume control on headset so identified			
SIGNS, SIGNALS, AND SWITCHES			
			-p
Specification	Yes	No	Comments/Transition Notes
Switches, Controls and Signs			
Switches and controls for light, heat, ventilation,	X		
windows, fire alarms, thermostats, etc, must be a			
minimum of 36" and a maximum of 48" above the			
floor for a forward reach, a maximum of 54" for a	*1		
side reach			
Electrical outlets centered no lower than 18" above	X		
the floor			
Warning signals must be visual as well as audible	X		
Signs NO			
Mounting height must be 60" to centerline of the			
sign			
Within 18" of door jamb or recessed	1		
Letters and numbers a t least 11/4" high			
Letters and numbers a t least 11/4" high			

LOCATION

Specification	Yes	No	Comments/Transition Notes
Ramp at least 34" wide with a non-slip surface extending into the shallow end, slope not exceeding 1:6 with handrails on both sides			
Lifting device			
Transfer area 18" above the path of travel and a minimum of 18" wide	:		
Unobstructed path of travel not less than 48" wide around pool			
Non-slip surface			

# LOCATION

LUCATION			
SHOWER ROOMS - Showers must accommoda	te boti	n whee	el-in and transfer use NO
Specification	Yes	No	Comments/Transition Notes
Stalls 36" by 60" minimum, with a 36" door opening			
Floors are pitched to drain the stall at the corner farthest from entrance			
Floors are non-slip surface			
Controls operate by a single lever with a pressure balance mixing valve			
Controls are located on the center wall adjacent to the hinged seat			
Shower heads attached to a flexible metal hose			
Shower heads attached to wall mounting adjustable from 42" to 72" above the floor			
Seat is hinged and padded and at least 16" deep, folds upward, securely attached to side wall, height is 18" to the top of the seat, and at least 24" long			
Soap trays without handhold features unless they can support 250 pounds			
2 grab bars are provided, one 30" and one 48" long, or one continuous L shaped bar			
Grab bars are placed horizontally at 36" above the floor line			

# LOCATION

PICNICKING			
Specification	Yes	No	Comments/Transition Notes
A minimum of 5% of the total tables must be accessible with clear space under the table top not less than 30" wide and 19" deep per seating space and not less than 27" clear from the ground to the underside of the table. An additional 29" clear space (totaling 48") must extend beyond the 19" clear space under the table to provide access	Х		
For tables without toe clearance, the knee space under the table must be at least 28" high, 30" wide and 24" deep.	Х		
Top of table no higher than 32" above ground	Х		
Surface of the clear ground space under and around the table must be stable, firmand slip-resistant, and evenly graded with a maximum slope of 2% in all directions	Х		
Accessible tables, grills and fire rings must have clear ground space of at least 36" around the perimeter	Х		

Facility Inventory

LOCATION: RECREATION DEPT. BUILDING

1420 MAIN STREET

ACTIVITY	EQUIPMENT	NOTES				
ACTIVITY	In 12 20 10 11 100 11 1	Located adjacent to accessible paths				
	Tables & Benches	Access to Open Spaces				
	Tables & benches	Back and Arm Rests				
		Adequate number				
Diania Facilities		Height of Cooking Surface				
Picnic Facilities	Grills	Located adjacent to accessible paths				
NONE	Trash Cans	Located adjacent to accessible paths				
	Trash cans	Located adjacent to accessible paths				
	Picnic Shelters	Located near accessible water fountains, trash can, restroom,				
		parking, etc.				
		Surface material				
Trails		Dimensions				
NONE		Rails				
NONL		Signage (for visually impaired)				
*****	The state of the s	Entrance				
	Pools	Location from accessible parking				
		Safety features i.e. warning for visually impaired				
Swimming Facilities	LA TERROR	Location from accessible path into water				
NONE		Handrails				
	Beaches	Location from accessible parking				
		Shade provided				
	All Play Equipment i.e. swings, slides	Same experience provided to all				
Play Areas (tot lots)	Access Routes	Located adjacent to accessible paths				
NONE		Enough space between equipment for wheelchair				
	Access Routes	Located adjacent to accessible paths				
Game Areas: *ballfield		Berm cuts onto courts				
*basketball	Equipment	Height				
*tennis		Dimensions				
		Spectator Seating				
Boat Docks NO	Access Routes	Located adjacent to accessible paths				
DOAL DOCKS NO	Access Routes	Handrails				
	Access Routes	Located adjacent to accessible paths				
	Access Routes	Handrails				
Fishing Facilities NO		Arm Rests				
i isiting i actitues NO	Equipment	Bait Shelves				
		Handrails				
		Fish Cleaning Tables				
		Learn-to-Swim				
Programming	Are special programs at your facilities accessible?	Guided Hikes				
		Interpretive Programs				
Services and Technical	Information available in alterna	tive formats i.e. for visually impaired				
Assistance	Process to request interpretive	services (i.e. sign language interpreter) for meetings				

LOCATION PARKING					
Total Spaces		Requi	red Accessible Spaces		
to 25			1 space		
5-50 5-50		2 spaces			
51-75			ces		
A STATE OF THE STA		4 spa			
76-100		5 spa			
101-150					
151-200		6 spaces			
201-300		7 spaces			
301-400		8 spa			
401-500		9 spa	ices		
Specification for Accessible Spaces	Yes	No	Comments/Transition Notes		
Accessible space located closest to accessible entrance	Х				
Where spaces cannot be located within 200 ft of	X				
accessible entrance, drop-off area is provided within 100 ft.	^	;			
Minimum width of 13 ft includes 8 ft space plus 5 ft access aisle	X				
Van space - minimum of 1 van space for every	Х				
accessible space, 8 ft wide plus 8 ft aisle. Alternative is to make all accessible spaces 11 ft wide with 5 ft aisle.					
Sign with international symbol of accessibility at each space or pair of spaces	Υ				
Sign minimum 5 ft, maximum 8 ft to top of sign			n/a		
Surface evenly paved or hard-packed (no cracks)	Χ				
Surface slope less than 1:20, 5%	X				
Curbcut to pathway from parking lot at each space or pair of spaces, if sidewalk (curb) is present	2		n/a		
Curbcut is a minimum width of 3 ft, excluding sloped sides, has sloped sides, all slopes not to exceed 1:12, and textured or painted yellow			n/a		
RAMPS					
Specification	Yes	No	Comments/Transition Notes		
Slope Maximum 1:12	Χ				
Minimum width 4 ft between handrails			n/a		
Handrails on both sides if ramp is longer than 6 ft			n/a		
Handrails at 34" and 19" from ramp surface			n/a		
Handrails extend 12" beyond top and bottom		<del> </del>	n/a		
Handgrip oval or round	-	-	n/a		
Handgrip smooth surface	_		n/a		
Handgrip diameter between 1¼" and 2"			n/a		
Clearance of 1½" between wall and wall rail			n/a		
Non-slip surface			n/a		
Level platforms (4ft x 4 ft) at every 30 ft, at top, at bottom, at change of direction			n/a		

LOCATION SITE ACCESS, PATH OF TRAVEL, ENTRANCES Comments/Transition Notes No Specification Site Access Accessible path of travel from passenger disembarking area and parking area to accessible Disembarking area at accessible entrance Surface evenly paved or hard-packed No ponding of water Path of Travel Path does not require the use of stairs Path is stable, firm and s lip resistant 3 ft wide minimum Slope maximum 1:20 (5%) and maximum cross pitch is 2% (1:50). Continuous common surface, no changes in level greater than ½ inch Any objects protruding onto the pathway must be n/a detected by a person with a visual disability using a Objects protruding more than 4" from the wall n/a must be within 27" of the ground, or higher than Curb on the pathway must have curb cuts at drives, n/a parking and drop-offs Entrances Primary public entrances accessible to person using wheelchair, must be signed, gotten to independently, and not be the service entrance Level space extending 5 ft. from the door, interior X and exterior of entrance doors Minimum 32" clear width opening (i.e. 36" door with standard hinge) At least 18" clear floor area on latch, pull side of door Door handle no higher than 48" and operable with a X closed fist

n/a

n/a

n/a

**NOTES** 

into the space

accessible

maximum

to accessible entrance

audible signals, sufficiently lighted

Vestibule is 4 ft plus the width of the door swinging

Door mats less than ½" thick are securely fastened X
Door mats more than ½" thick are recessed
Grates in path of travel have openings of ½"

Signs at non-accessible entrance(s) indicate direction

Emergency egress - alarms with flashing lights and X

Entrance(s) on a level that makes elevators

# LOCATION

STAIRS and DOORS	Yes	No	Comments/Transition Notes
Specification	res	NO	Comments/Transition Notes
Stairs			
No open risers			n/a
Nosings not projecting			n/a
Treads no less than 11" wide			n/a
Handrails on both sides			n/a
Handrails 34"-38" above tread			n/a
Handrail extends a minimum of 1 ft beyond top and bottom riser (if no safety hazard and space permits)			n/a
Handgrip oval or round			n/a
Handgrip has a smooth surface			n/a
Handgrip diameter between 1¼" and 1½"			n/a
1½" clearance between wall and handrail			n/a
Minimum 32" clear opening			
At least 18" clear floor space on pull side of door	Х		
Closing speed minimum 3 seconds to within 3" of the latch	Y		
Maximum pressure 5 pounds interior doors	X		
Threshold maximum ½" high, beveled on both sides			
Hardware operable with a closed fist (no conventional door knobs or thumb latch devices)			
Hardware minimum 36", maximum 48" above the floor	X		
Clear, level floor space extends out 5 ft from both sides of the door	Х		
Door adjacent to revolving door is accessible and unlocked	n/a		
Doors opening into hazardous area have hardware that is knurled or roughened			

RESTROOMS - also see Doors and Vestibules			was the same of th
The state of the s	Yes	No	Comments/Transition Notes
Specification 5 ft turning space measured 12" from the floor	163	100	Comments/ Transition Notes
At least one Sink:	J	Д	
At least one sink.			
Clearfloorspace of 30" by 48" to allow a forward	Χ	T	
approach	^		
	Χ		
of rim	^		
Extends at least 22" from the wall	X	<u> </u>	
Open knee space a minimum 19" deep, 30" width,	Y		
and 27" high			
Cover exposed pipes with insulation	<del> </del>		n/a
Faucets operable with closed fist (lever or spring	X		TIT Q
activated handle)	^		
At least one Stall:	1	1	
, 1			
Accessible to person using wheelchair at 60" wide	1		n/a
by 72" deep			
Stall door is 36" wide			n/a
Stall door swings out			n/a
Stall door is self closing			n/a
Stall door has a pull latch			n/a
Lock on stall door is operable with a closed fist, and			n/a
32" above the floor			
Coat hook is 54" high			n/a
Toilet			
18" from center to nearest side wall	Χ		
42" minimum clear space from center to farthest	Χ		
wall or fixture			
Top of seat 17"-19" above the floor	_X		
Grab BarsX			
On back and side wall closest to toilet	_X		
1¼" diameter	Χ		
1½" clearance to wall	X		
Located 30" above and parallel to the floor	Χ		
Acid-etched or roughened surface	_X		
42" long	X		
Fixtures			
Toilet paper dispenser is 24" above floor	<u> </u>	X	
One mirror set a maximum 38" to bottom (if tilted,	X		
42")	_		
Dispensers (towel, soap, etc) at least one of each	a	Χ	
maximum 42" above the floor			
	1	1	!

LOCATION

LOCATION FLOORS, DRINKING FOUNTAINS, TELEPHO	NES		
Specification	Yes	No	Comments/Transition Notes
Floors		I.u.	
Non-slip surface	Χ		
Carpeting is high-density, low pile, non-absorbent, stretched taut, securely anchored	Χ		
Corridor width minimum is 3 ft	Χ		
Objects (signs, ceiling lights, fixtures) can only protrude 4" into the path of travel from a height of 27" to 80" above the floor	X		
Drinking Fountains			
Spouts no higher than 36" from floor to outlet		1	n/a
Hand operated push button or level controls			n/a
Spouts located near front with stream of water as parallel to front as possible			n/a
If recessed, recess a minimum 30" width, and no deeper than depth of fountain			n/a
If no clear knees pace underneath, clear floors pace 30" x 48" to allow parallel approach			n/a
Telephones			
Highest operating part a maximum 54" above the floor			n/a
Access within 12" of phone, 30" high by 30" wide			n/a
Adjustable volume control on headset so identified	1		n/a
SIGNS, SIGNALS, AND SWITCHES			
Specification	Yes	No	Comments/Transition Notes
Switches, Controls and Signs			
Switches and controls for light, heat, ventilation, windows, fire alarms, thermostats, etc, must be a minimum of 36" and a maximum of 48" above the floor for a forward reach, a maximum of 54" for a side reach	X		
Electrical outlets centered no lower than 18" above the floor	Х		
Warning signals must be visual as well as audible	Χ		
Signs			
Mounting height must be 60" to centerline of the sign			
Within 18" of door jamb or recessed			
Letters and numbers a t least 11/4" high			
Letters and numbers raised .03"			
Letters and numbers contrast with the background color	t		

LOCATION

Specification	Yes	No	Comments/Transition Notes
Ramp at least 34" wide with a non-slip surface extending into the shallow end, slope not exceeding 1:6 with handrails on both sides			
Lifting device			
Transfer area 18" above the path of travel and a minimum of 18" wide			
Unobstructed path of travel not less than 48" wide around pool			
Non-slip surface			

### LOCATION

LOCATION						
SHOWER ROOMS - Showers must accommodate both wheel-in and transfer use						
Specification	Yes	No	Comments/Transition Notes			
Stalls 36" by 60" minimum, with a 36" door opening						
Floors are pitched to drain the stall at the corner						
farthest from entrance						
Floors are non-slip surface						
Controls operate by a single lever with a pressure balance mixing valve						
Controls are located on the center wall adjacent to the hinged seat						
Shower heads attached to a flexible metal hose						
Shower heads attached to wall mounting adjustable from 42" to 72" above the floor						
Seat is hinged and padded and at least 16" deep, folds upward, securely attached to side wall, height is 18" to the top of the seat, and at least 24" long						
Soap trays without handhold features unless they can support 250 pounds						
2 grab bars are provided, one 30" and one 48" long, or one continuous L shaped bar			-			
Grab bars are placed horizontally at 36" above the floor line						

# LOCATION

PICNICKING		<del></del>	
Specification	Yes	No	Comments/Transition Notes
A minimum of 5% of the total tables must be accessible with clear space under the table top not less than 30" wide and 19" deep per seating space and not less than 27" clear from the ground to the underside of the table. An additional 29" clear space (totaling 48") must extend beyond the 19" clear space under the table to provide access			
For tables without toe clearance, the knee space under the table must be at least 28" high, 30" wide and 24" deep.			
Top of table no higher than 32" above ground			
Surface of the clear ground space under and around the table must be stable, firma nd slip-resistant, and evenly graded with a maximum slope of 2% in all directions			
Accessible tables, grills and fire rings must have clear ground space of at least 36" around the perimeter			,

Facility Inventory

LOCATION: TROUT BROOK RESERVATION

ACTIVITY	EQUIPMENT	NOTES					
	-	Located adjacent to accessible paths YES					
	Tables & Benches	Access to Open Spaces YES					
	rubics a benefici	Back and Arm Rests YES, NO					
		Adequate number YES					
Picnic Facilities	Grills YES	Height of Cooking Surface 30-INCHES					
richic racificies	GIIIIS TES	Located adjacent to accessible paths YES					
	Trash Cans YES	Located adjacent to accessible paths YES					
		Located adjacent to accessible paths YES					
	Picnic Shelters YES	Located near accessible water fountains, trash can, restroom,					
		parking, etc. YES					
		Surface material Natural Ground/Wooded Trail					
Trails	YES	Dimensions 4-feet wide average					
Truits		Rails NO					
		Signage (for visually impaired) NO					
		Entrance					
	Pools NO	Location from accessible parking					
		Safety features i.e. warning for visually impaired					
Swimming Facilities		Location from accessible path into water YES					
	Basakas NO	Handrails NO					
	Beaches NO	Location from accessible parking YES					
		Shade provided YES					
DI. A (A L. L	All Play Equipment i.e. swings, slides	Same experience provided to all					
Play Areas (tot lots)	Access Routes	Located adjacent to accessible paths					
		Enough space between equipment for wheelchair YES					
Game	Access Routes	Located adjacent to accessible paths					
Areas:NO		Berm cuts onto courts					
*ballfield		Height					
*basketball	Equipment	Dimensions					
*tennis	<b>'</b> '	Spectator Seating					
Boat Docks NO	Access Routes	Located adjacent to accessible paths					
DOAL DOCKS NO	Access Routes	Handrails					
	Access Routes	Located adjacent to accessible paths					
	Access Routes	Handrails					
Fishing Facilities		Arm Rests NO					
Fishing Facilities		Bait Shelves NO					
YES	Equipment	Handrails NO					
153		Fish Cleaning Tables NO					
		Learn-to-Swim					
Programming NO	Are special programs at your facilities accessible?	Guided Hikes					
		Interpretive Programs					
Services and Technical		alternative formats i.e. for visually impaired NO					
Assistance	Process to request interpretive	etive services (i.e. sign language interpreter) for meetings NO					

LOCATION PARKING Required Accessible Spaces Total Spaces 1 space Up to 25 2 spaces X 26-50 X 51-75 3 spaces 4 spaces 76-100 5 spaces 101-150 6 spaces 151-200 7 spaces 201-300 8 spaces 301-400 9 spaces 401-500 Comments/Transition Notes No Specification for Accessible Spaces Yes Accessible space located closest to accessible Χ entrance Where spaces cannot be located within 200 ft of Х accessible entrance, drop-off area is provided within Minimum width of 13 ft includes 8 ft space plus 5 ft Х access aisle Van space - minimum of 1 van space for every Χ accessible space, 8 ft wide plus 8 ft aisle. Alternative is to make all accessible spaces 11 ft wide with 5 ft aisle. Sign with international symbol of accessibility at each Χ space or pair of spaces Sign minimum 5 ft, maximum 8 ft to top of sign Х Surface evenly paved or hard-packed (no cracks) Х Surface slope less than 1:20, 5% Х Curbcut to pathway from parking lot at each space All flat n/a or pair of spaces, if sidewalk (curb) is present Curbcut is a minimum width of 3 ft, excluding All flat Χ sloped sides, has sloped sides, all slopes not to exceed 1:12, and textured or painted yellow RAMPS NO Comments/Transition Notes Specification Yes No Parking is flat surface without berm Slope Maximum 1:12 Minimum width 4 ft between handrails Handrails on both sides if ramp is longer than 6 ft Handrails at 34" and 19" from ramp surface Handrails extend 12" beyond top and bottom Handgrip oval or round Handgrip smooth surface Handgrip diameter between 11/4" and 2" Clearance of 11/2" between wall and wall rail

Non-slip surface

bottom, at change of direction

Level platforms (4ft x 4 ft) at every 30 ft, at top, at

LOCATION SITE ACCESS, PATH OF TRAVEL, ENTRANC	ES		
Specification	Yes	No	Comments/Transition Notes
Site Access			
Accessible path of travel from passenger disembarking area and parking area to accessible entrance	X		
Disembarking area at accessible entrance	X		
Surface evenly paved or hard-packed	X		The state of the s
,,	^		
No ponding of water	Х		
Path of Travel			
Path does not require the use of stairs		Х	
Path is stable, firm and s lip resistant	Х		
3 ft wide minimum	Χ		
Slope maximum 1:20 (5%) and maximum cross pitch is 2% (1:50).	Х		
Continuous common surface, no changes in level greater than $\frac{1}{2}$ inch	Χ		
Any objects protruding onto the pathway must be detected by a person with a visual disability using a cane	Х		
Objects protruding more than 4" from the wall must be within 27" of the ground, or higher than 80"	X		
Curb on the pathway must have curb cuts at drives, parking and drop-offs	Х		
Entrances			
Primary public entrances accessible to person using wheelchair, must be signed, gotten to independently, and <i>not</i> be the service entrance	Х		Trout Brook has a large lodge with restrooms and kitchen area.
Level space extending 5 ft. from the door, interior and exterior of entrance doors	Х		
Minimum 32" clear width opening (i.e. 36" door with standard hinge)	х		
At least 18" clear floor area on latch, pull side of door	Х		
Door handle no higher than 48" and operable with a closed fist	X		
Vestibule is 4 ft plus the width of the door swinging into the space	Х		
Entrance(s) on a level that makes elevators accessible	n/a		
Door mats less than $\frac{1}{2}$ " thick are securely fastened			
Door mats more than ½" thick are recessed	X	ļ	
Grates in path of travel have openings of ½" maximum	n/a		
Signs at non-accessible entrance(s) indicate direction to accessible entrance		Х	
Emergency egress - alarms with flashing lights and audible signals, sufficiently lighted	Х		

0	C	Д	T	1000	O	N	

LOCATION			
STAIRS and DOORS			
Specification	Yes	No	Comments/Transition Notes
Stairs NO			
No open risers			
Nosings not projecting			
Treads no less than 11" wide			
Handrails on both sides			
Handrails 34"-38" above tread			
Handrail extends a minimum of 1 ft beyond top and			
bottom riser (if no safety hazard and space permits)			
Handgrip oval or round			
Handgrip has a smooth surface			
Handgrip diameter between 1¼" and 1½"			
1½" clearance between wall and handrail			
Doors YES			
Minimum 32" clear opening	Х	-	
At least 18" clear floor space on pull side of door	Χ		
Closing speed minimum 3 seconds to within 3" of	X		
the latch			
Maximum pressure 5 pounds interior doors	X		
Threshold maximum ½" high, beveled on both sides			
Hardware operable with a closed fist (no	X		
conventional door knobs or thumb latch devices)			
Hardware minimum 36", maximum 48" above the	Х		
floor			
Clear, level floor space extends out 5 ft from both	Х		
sides of the door			
Door adjacent to revolving door is accessible and	n/a		
unlocked			
Doors opening into hazardous area have hardware	n/a	ı	
that is knurled or roughened			

LOCATION		**	
RESTROOMS - also see Doors and Vestibules		T	C
Specification	Yes	No	Comments/Transition Notes
5 ft turning space measured 12" from the floor	X		
At least one Sink: YES			
Classification of 20" by 49" to allow a forward		1	
Clearfloorspace of 30" by 48" to allow a forward	Х	İ	
approach		-	
Mounted without pedestal or legs, height 34" to top	X		
Extends at least 22" from the wall	X		
Open knee space a minimum 19" deep, 30" width,	X		
and 27" high	^		
Cover exposed pipes with insulation	Х		
Faucets operable with closed fist (lever or spring activated handle)	Х		
At least one Stall:		l	
Accessible to person using wheelchair at 60" wide	Х		
by 72" deep			
Stall door is 36" wide	X		
Stall door swings out	X		
Stall door is self closing	X		
Stall door has a pull latch	X		
Lock on stall door is operable with a closed fist, and 32" above the floor	X		
Coat hook is 54" high	X		
Toilet			
	,		
18" from center to nearest side wall	X		
42" minimum clear space from center to farthest wall or fixture	X		
Top of seat 17"-19" above the floor	X		
Grab Bars			
On back and side wall closest to toilet	X		
1¼" diameter	Х		
1½" clearance to wall	X		
Located 30" above and parallel to the floor	Χ		
Acid-etched or roughened surface	Х		
42" long	X		
Fixtures	k-w-i-i-i		
Toilet paper dispenser is 24" above floor	Х		
One mirror set a maximum 38" to bottom (if tilted, 42")	X		
Dispensers (towel, soap, etc) at least one of each maximum 42" above the floor	a X		

FLOORS, DRINKING FOUNTAINS, TELEPHO Specification	Yes	No	Comments/Transition Notes
Floors			
Non-slip surface	X		
Carpeting is high-density, low pile, non-absorbent, stretched taut, securely anchored	n/a		-
Corridor width minimum is 3 ft			
ZOTTIGOT WIGHT HITHIIIIIII IS 5 TC	X		,
Objects (signs, ceiling lights, fixtures) can only	Х		
protrude 4" into the path of travel from a height of			
27" to 80" above the floor			* <u>*</u>
Drinking Fountains NO			
Spouts no higher than 36" from floor to outlet			
Hand operated push button or level controls			
Spouts located near front with stream of water as parallel to front as possible			
If recessed, recess a minimum 30" width, and no			
deeper than depth of fountain			,
If no clear kneespace underneath, clear floorspace			
30" x 48" to allow parallel approach			n
Telephones NO			
*			
Highest operating part a maximum 54" above the			:
floor			
Access within 12" of phone, 30" high by 30" wide			
Adjustable volume control on headset so identified SIGNS, SIGNALS, AND SWITCHES			
SIGNS, SIGNALS, AND SWITCHES			
Specification	Yes	No	Comments/Transition Notes
Switches, Controls and Signs			9
Switches and controls for light, heat, ventilation,	Х		
windows, fire alarms, thermostats, etc, must be a minimum of 36" and a maximum of 48" above the			r)
floor for a forward reach, a maximum of 54" for a			
side reach			
Electrical outlets centered no lower than 18" above	V	+	7
the floor	X		
Warning signals must be visual as well as audible	Х		
Signs NO			
5.55			
Mounting height must be 60" to centerline of the			
sign			
Within 18" of door jamb or recessed			
Letters and numbers a t least 1¼" high			
Letters and numbers raised .03"			
Letters and numbers contrast with the background			
color			

LOCATION

Specification	Yes	No	Comments/Transition Notes
Ramp at least 34" wide with a non-slip surface extending into the shallowend, slope not exceeding 1:6 with handrails on both sides			
Lifting device			
Transfer area 18" above the path of travel and a minimum of 18" wide			
Unobstructed path of travel not less than 48" wide around pool			
Non-slip surface			

## LOCATION

LOCATION					
SHOWER ROOMS - Showers must accommodate both wheel-in and transfer use NO					
Specification	Yes	No	Comments/Transition Notes		
Stalls 36" by 60" minimum, with a 36" door opening					
Floors are pitched to drain the stall at the corner					
farthest from entrance					
Floors are non-slip surface					
Controls operate by a single lever with a pressure					
balance mixing valve					
Controls are located on the center wall adjacent to					
the hinged seat					
Shower heads attached to a flexible metal hose					
Shower heads attached to wall mounting adjustable					
from 42" to 72" above the floor					
Seat is hinged and padded and at least 16" deep,		1			
folds upward, securely attached to side wall, height					
is 18" to the top of the seat, and at least 24" long					
Soap trays without handhold features unless they					
can support 250 pounds					
2 grab bars are provided, one 30" and one 48" long,					
or one continuous L shaped bar					
Grab bars are placed horizontally at 36" above the	-				
floor line		1			

## LOCATION

PICNICKING					
Specification	Yes	No	Comments/Transition Notes		
A minimum of 5% of the total tables must be accessible with clear space under the table top not less than 30" wide and 19" deep per seating space and not less than 27" clear from the ground to the underside of the table. An additional 29" clear space (totaling 48") must extend beyond the 19" clear space under the table to provide access	X				
For tables without toe clearance, the knee space under the table must be at least 28" high, 30" wide and 24" deep.	X				
Top of table no higher than 32" above ground	Х				
Surface of the clear ground space under and around the table must be stable, firmand slip-resistant, and evenly graded with a maximum slope of 2% in all directions	X				
Accessible tables, grills and fire rings must have clear ground space of at least 36" around the perimeter	Х				

