JUNE 15, 2020 REVISION







TOWN OF MEDWAY

OPEN SPACE AND RECREATION PLAN

2018-2025

ACKNOWLEDGEMENTS

This plan was developed under the guidance of the Medway Open Space and Recreation Plan Task Force, staff support from the Town of Medway Community and Economic Development Department, Department of Public Works, and professional planning services provided by Conservation Works, LLC. Financial support was provided by Community Preservation Act Funds.

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DEDICATION to JIM WIELER



This update of Medway's Open Space and Recreation Plan is dedicated to long-time Medway resident Jim Wieler. Jim was an elected member of the Planning Board from the mid-1990's until 2004. The idea to create a pedestrian trail through the Chicken Brook corridor from Choate Pond northerly to Holliston was first developed during the 1999 Medway Master Plan process, a volunteer initiative that Jim co-chaired while serving on the Planning Board. In 2008, Jim co-chaired the Medway Master Plan Update Committee, where the further development of the Medway Link Trail was embraced as a major open space priority. Jim was appointed to the Town's Community Preservation Committee as an atlarge member in 2012 and served as its vice-chairman. He was invited to join the Board of the Upper Charles Conservation Land Trust and served as its president for several years.

Throughout his years of dedicated community service, Jim continued his advocacy for expansion of the Medway Link Trail and other open space assets, serving as a staunch proponent for CPA funding for land acquisition and trail development. He chaired the Trails Task Force which, between 2016 and 2019, led to the construction of the Dave Hoag Boardwalk in 2017 and the second, smaller boardwalk near Millstone Village in 2019 as well as advocating for the public access easement that allowed the trail to continue through the Millstone Village property to Winthrop Street.

In 2015, Jim co-founded the Medway Trail Club (MTC) and served as its first president. MTC is a volunteer organization of more than one thousand Facebook members who are Medway-area residents dedicated to caring for, enjoying, sharing information about and expanding Medway's trail network.

Jim and his wife Shelley are relocating soon and will be splitting their time between Maine and New Hampshire. We know Medway will always hold a place in their hearts for them as they will for Medway. The Open Space and Recreation Plan Update Task Force is pleased and honored to dedicate the Medway Open Space and Recreation plan to Jim Wieler and extend to him a very big thank you for his vision, persistence, and dedication to planning, community preservation, open space, and trails in Medway.

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SECTION 1 EXECUTIVE SUMMARY

Medway's 2018 Open Space and Recreation Plan (OSRP) was developed over a year-long planning process, with participation from many town departments, boards and committees, and an extensive public outreach and engagement process. Considered an update to the 2010 OSRP, the plan provides a comprehensive assessment of open space and recreation in Medway today. The term "open space" is used broadly throughout this plan and is used to refer to conservation land, forested land, recreation land, agricultural land, parks, and other undeveloped vacant land. Some open space is used for passive activities such as walking, hiking or nature observation, while other open spaces are used for more active recreational activities including athletic fields and courts. Natural resources are the land, water, trees, animals, minerals and other substances found in nature, much of which is useful to humans, in addition to having their own intrinsic value. These natural resources provide so-called ecosystem services; the benefits people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and community benefits; and supporting services such as nutrient cycling that maintain the conditions for life on Earth. The Trust for Public Land conducted an economic analysis of the return on the Commonwealth's investment in land conservation through a variety of state funding programs and found that every \$1 invested in land conservation returned \$4 in natural goods and services to the Massachusetts economy (Trust for Public Land 2013). Therefore, it is prudent for Medway to evaluate open space and recreation within the community and establish a plan to ensure the long-term care and stewardship of these resources.

Pressures on open space from new development remain high. Medway has experienced steady population growth since the end of World War II due to its proximity to Boston, Massachusetts and Providence, Rhode Island, reaching a peak in the 1990s. Although growth slowed in the 2000s, it is estimated to have increased again between 2010 and 2016, consistent with other towns in Norfolk County. The development associated with these new residents has affected the character of the community. Once a small farming town, the construction of I-495 in the 1960s triggered the conversion of rural roadways into suburban collectors, especially Route 109, the main east-west corridor, and Route 126, a north-south artery. The median household income in 2015 was \$110,241, which is 20% higher than the county and 62% higher than the state. Much of the town's growth is attributed to young families. Although there has been a decline of 19% in school district enrollment since 2002, almost one-third of Medway's population is under nineteen years old.

"This plan doesn't belong to any one entity. It belongs to all of us."

Susan Affleck-Childs, Medway Planning and Economic Development Coordinator at the

June 25, 2018 Public Forum

Medway residents are proud of their conservation and recreation areas. 7.3% (538 acres) of the community's total land area is permanently protected as open space. There are an additional 379 acres of Town-owned land used for recreation and open space without permanent deed restrictions (5.1% of the Medway's land area) for a total of 12.4% of Medway land currently dedicated to open space and recreation. Consistent with a growing trend nationally, residents are calling for increasing access to these areas for outdoor recreation and, expanding pedestrian and bicycle networks between them for people of all ages and abilities.

The goals and objectives have been updated and refined since the 2010 Open Space and Recreation Plan due to the many action plan accomplishments since 2010. Three new goals have been derived from an extensive public outreach and engagement process, which included three public forums, a community survey, numerous Task Force meetings, and extensive communication between and among Town departments, boards, and committees. The goals for open space and recreation in Medway for the next seven years are as follows:

Goal #1 - Important natural resources are protected and sustainably managed for future generations to use and enjoy.

Goal #2 - A range of recreational opportunities exist on Town lands with adequate resources dedicated to their maintenance.

Goal #3 - A network of well-maintained trails exists across Medway, with a strong stewardship program established.



Resident engaged in nature photography at Choate Pond.

SECTION 2 INTRODUCTION

A. Statement of Purpose

The purpose of an Open Space and Recreation Plan (OSRP) is to provide guidance for the protection and management of the community's open space and recreation resources, while also directing smart growth to places where the impact on natural resources can be minimized so that the quality of ecosystem services can be optimized. Ecosystem services are the benefits people obtain from ecosystems, including provisioning services such as food and water; regulating services such as regulation of floods, drought, land degradation, and disease; supporting services such as soil formation and nutrient cycling; and cultural services such as recreational, spiritual, religious and other non-material benefits. These services can be translated into economic returns as well. The Trust for Public Land conducted an economic analysis of the return on the Commonwealth's investment in land conservation through a variety of state funding programs and found that every \$1 in land conservation returned \$4 in natural goods and services to the Massachusetts economy.

Medway's first OSRP was completed in 1996 and updated sixteen years later in 2010 by a newly appointed Open Space Committee. Recognizing how useful the 2010 OSRP was in directing community development efforts in the areas of land conservation and outdoor recreation, residents sought funding at Town Meeting in 2017 to update the 2010 plan and create a new seven-year action plan, capitalizing on a number of recent accomplishments in these areas.

Development pressure continues to be high. Without thoughtful planning and a vision to guide development, the community character that is cherished by many could easily be lost, as it has been in many other communities. A common vision facilitates decision making for everyone – local, state and regional government, private landowners, developers, local businesses, community organizations, and others. This plan, developed through broad public input, is intended to provide the vision as well as specific strategies for accomplishing Medway's goals.

Accomplishments - There have been many accomplishments since Medway's 2010 OSRP was completed. Some of them are ongoing and recognized in the new Seven-Year Action Plan. Others have served as critical steppingstones and have resulted in a network of green spaces throughout Medway. The use of Community Preservation Act Funds has been a significant boost to the Town's ability to implement elements of the 2010 OSRP action plan. The following is a list of some of these accomplishments:

Open Space Acquired

Over 130 acres of land has been permanently protected for open space.

- 15 acres at 50 Winthrop Street Supported the establishment of the Medway Community Farm
- 8 acres south of Adams Street Adams Street meadow
- 57 acres south of Adams Street Surrounding the High School
- 50 acres north of Adams Street The "Boardwalk"

Trail Development

A broad range of natural environments can now be experienced including mature and young oak/pine forests, riverfronts, meadows, and stream corridors. Trail projects undertaken since the last OSRP include:

- Establishment of a walking trail along a farmer's pond at Idylbrook
- Negotiated permission to use the trails between Idylbrook and Wenakeening Woods in Holliston
- Development of a walking trail from Medway High School to Summer Street
- Design and construction of a walking trail off Adams Street including the Dave Hoag



boardwalk going through to the Millstone property on Winthrop Street

Recreational Water Access

- Identified two Town-owned riverfront properties that were inaccessible to residents and collaborated with the Massachusetts Department of Fish and Game to provide accessibility improvements at Bresnahan's Landing Canoe Launch and Fishing Platform
- Created a ½ mile loop trail that follows the Charles River and the historic Amphitheatre
 Bowl including parking with many volunteers including the Open Space Committee, Girl
 and Boy Scouts and Board of Selectmen, Conservation Commission, Community
 Preservation Committee, Department of Public Services, Planning and Economic
 Development Board and others.

Outdoor Recreation and Park Improvements

Over \$4.8 million in park renovations have been completed for passive and active recreational areas, pavilions, new playground equipment, improved parking, and improved accessibility for mobility impaired people.

- Planned, designed, and constructed major renovations at Oakland Park
- Planned, designed, and constructed major renovations at Choate Park
- Planned, designed and constructed replacement of tennis courts at Medway Middle School
- Completed High School athletic field additions (football and soccer fields, baseball diamond)



Community Education and Outreach

- Designed and installed "Medway Open Space" signs
- Produced brochure of comprehensive guide to Medway Open Spaces and posted to web page
- Created online trail maps and tools
- Participated in local events including Medway Pride Day, Clean Sweep and Storyboards
- Established Winterfire cross country ski and hiking festival
- Worked with the Eagle Scouts on projects including development of a walking path around the Community

Farm and meadow, canoe launch cleanup and planting, and a trail bridge at the Amphitheatre

- Established the Medway Trail Club
- Town hired created a Parks and Recreation Department and hired a full time Parks and Recreation Director
- Obtained Community Preservation Act (CPA) funds to construct information kiosks for installation at various Town open space properties.





Information Kiosk - Photo by Charlie Ross

Environmental Planning

- Worked with the Conway School of Landscape Design to develop a management plan for the Adams Street Conservation Area.
- Negotiated and secured open space conservation restrictions in several new residential developments including Williamsburg, Millstone, and Salmon Senior Living Community.
- Open Space Committee became a permanent member of the Community Preservation Committee (CPC) and the Evaluation of Parks, Fields, and Recreation Areas Committee.

The Value of Open Space - The Trust for Public Land conducted an economic analysis of the return on the Commonwealth's investment in land conservation through a variety of state funding programs between 1998 and 2009 and found that every \$1 in land conservation returned \$4 in natural goods and services to the Massachusetts economy. For example, watershed protection around the Quabbin and Wachusett Reservoirs has saved Massachusetts Water Resources Authority ratepayers an estimated \$200 million in filtration plant construction and annual operating costs. The state tax revenue attributed to outdoor recreation spending equals \$739 million annually. Approximately 90,000 jobs in the state are supported by this spending, accounting for \$3.5 billion in wages and salaries. Agriculture, forestry, commercial fishing, and related processing activities are responsible for \$13 billion in output, and 147,000 jobs in Massachusetts. Over \$724 million of property value in Boston is attributable to its park system. Access to parks and open space increases the physical activity and health of residents in Massachusetts, reducing healthcare costs related to obesity by \$2 billion annually in the state. Although these figures are for the entire state, they illustrate the tremendous benefits, economic and otherwise, provided by a vibrant network of open space.

B. Planning Process and Public Participation

Development of Medway's 2018 Open Space and Recreation Plan was accomplished with broad input from residents and Town departments, boards and committees between May 2017 and June 2018. The process was guided by the Community and Economic Development Department and a seven-member task force appointed by the Planning and Economic Development Board, with technical assistance provided by consultant Anne Capra of Conservation Works, LLC. The Open Space and Recreation Plan Task Force met eleven times during the one-year planning process to share the priorities and initiatives of their respective boards and committees, review and analyze public comments, undertake a detailed parcel level analysis to prioritize open spaces for protection, review and comment on data updates and drafts of plan sections, and develop a seven-year action plan for accomplishing the goals and objectives developed in response to the planning process.

Table 2-1: Open Space and Recreation Plan Task Force

| Appointed Task Force | Appointed Task Force Members | | | | | |
|-------------------------------|--|--|--|--|--|--|
| Paul Atwood | Agricultural Committee, Upper Charles Conservation Land Trust, Medway Trails Club | | | | | |
| David Blackwell | Conservation Commission | | | | | |
| Matt Hayes, Chair | Planning and Economic Development Board | | | | | |
| Denise Legee | Open Space Committee | | | | | |
| Paul Mahoney and Deb Rossi | Board of Parks Commission and Evaluation of Parks, Fields and Recreation Areas Committee (EFRAC) | | | | | |
| Cindy Sullivan | School Committee | | | | | |
| Glenn Trindade | Board of Selectmen | | | | | |
| Task Force Staff | | | | | | |
| Susan Affleck-Childs | Planning and Economic Development Coordinator | | | | | |
| Dave D'Amico | Department of Public Works Director | | | | | |
| Bridget Graziano | Conservation Agent | | | | | |
| Mackenzie Leahy | Community and Economic Development Administrative Assistant | | | | | |
| Consultant | | | | | | |
| Anne Capra | Conservation Works LLC, Consultant | | | | | |

In addition, a community survey was conducted, and three public forums were held on October 3, 2017, March 12, 2018, and June 25, 2018. Notice of the public forums was advertised as follows:

- Posted info to the Town of Medway Facebook page which is followed by 3680 people.
- News releases were sent to Milford Daily News.
- Info was distributed through Medway Public Schools' electronic newsletter to parents/guardians.
- Flyers were prepared for each forum and posted around the community.

The fliers for the three public forums are included in Appendix D.

A detailed description of the findings and outcomes from these planning events is provided in Section 6 Community Vision.

SECTION 3 COMMUNITY SETTING

A. Regional Context

Medway is located at the western edge of Norfolk County in southeastern Massachusetts along the I-495 corridor, approximately thirty miles southwest of Boston. It is located within the Charles River watershed, with the Charles River forming the boundary between Medway and Franklin to the south. Two state highways traverse the community. Route 109 is a major eastwest commuter route, linking Medway with Milford and I-495 to the west, and connecting Medway to Millis, Medfield, Westwood, Boston, and I-95 to the east. Route 126 is a major north-south route, providing access to Bellingham and Woonsocket, RI to the south, and Holliston, Ashland, and Framingham to the north. Medway is served by the Franklin commuter rail line with three stations located in the abutting communities of Franklin and Norfolk.

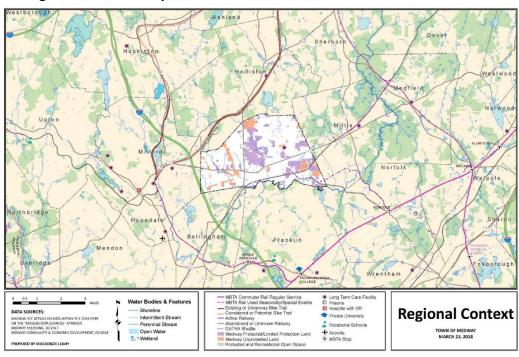


Figure 3-1: Regional Context Map

Medway is served by its regional planning commission, the Metropolitan Area Planning Council (MAPC) and its Southwest Area Planning (SWAP) sub-region. Medway is also a member of the 495/MetroWest Partnership. Through its involvement in these organizations, Medway has participated in regional efforts addressing water resources, traffic problems, open space, affordable housing, economic development, and town center development, along with a number of other issues. Most recently, Medway joined forces with MAPC and other communities in the SWAP and the nearby TRIC sub-region to undertake research on "Tiny Houses" and "Living Little" can provide opportunities for low-impact, smaller scale and infill development which may further encourage open space preservation.

Medway participated in MAPC's production of "MetroFuture," the official regional plan for Greater Boston, which was adopted in 2008. This updated Open Space and Recreation Plan is

consistent with MetroFuture, especially in its acknowledgment of regional natural and recreational resources, and in its recommendation for communicating with neighboring communities to identify potential trails which could cross town borders. See attached letter from MAPC in Section 10.

Medway shares a major Zone II aquifer with the towns of Franklin and Norfolk near Populatic Pond in the southeast quadrant of the community. All three towns either have, or are planning, wells in the vicinity. A portion of the Zone II aquifer for the Town of Bellingham's wells is located in the southwest corner of Medway. The Town has adopted Groundwater Protection Overlay District provisions in its Zoning Bylaw to protect these shared water resources.

The Town also shares a regional wastewater treatment plant with Franklin, Bellingham and Millis, operated by the Charles River Pollution Control District (CRPCD). The plant is located in Medway; it is a tertiary plant which discharges into the Charles River. An expansion of the plant in order to update compliance with National Pollution Discharge Elimination System (NPDES permit) was completed in late 2016.

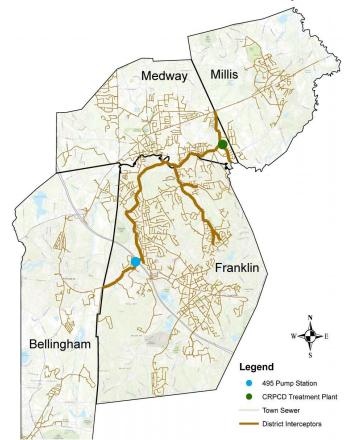


Figure 3-2: Charles River Pollution Control District Collection System

Source: Charles River Pollution Control District https://www.charlesriverpcd.org/about-us/pages/collection-system

Notes: The collection system consists of Town and District owned sewer pipes. The system has over 238 miles of sewer pipes and 37 pump stations, including approximately 13 miles of District owned interceptors and one District owned pump station. The District manages a Geographic Information System (GIS) that is used to support the operation and maintenance activities of the Sewer Collection System.

Within a seven miles radius of Medway, there are three high-school level vocational schools located in Franklin, Upton and Ashland and one private university, Dean College, in Franklin. Medway is served by Milford Regional Hospital with an emergency room. The regional agricultural high school is located in Walpole.

The Massachusetts Division of Conservation Services has a statewide open space and recreation plan called the Statewide Comprehensive Outdoor Recreation Plan (SCORP), which was last updated in 2017. Some of the findings of that plan for the region that includes Medway are discussed in Section 7 Analysis of Needs.

Among the abutting towns, as of December 2017, Franklin, Holliston, and Norfolk have current Open Space and Recreation Plans. The OSRPS for Bellingham, Millis, and Milford have expired.

B. History of Medway

The area that became the Town of Medway was once home to the Mucksquit Indians of the Nipmuc tribe. Unlike some of the nomadic tribes, the Mucksquit were farmers, growing pumpkins, squash, corn and beans in addition to fishing in Medway's waterways. The land containing what is now Medway was acquired by Medfield in 1659 through a "New Grant." In 1713, the Town of Medway was incorporated as a separate town and, began as a small farming community of 230 people.

Located along the Charles River and harnessing the water power of Chicken Brook and Hopping Brook, Medway was the perfect location for mills of all kinds. Medway's bountiful water power provided the basis for large-scale industrial development beginning as early as 1809, when the Medway Cotton Manufacturing Company (the first of its kind in the country) was established on the Charles River. The first carpet mill in New England would be built on Chicken Brook in 1826. Medway became nationally known for its Bell Foundry and canning industries.

Hat factories, boot manufacturers, and other mills sprang up throughout the 1800s, and some remained in operation well into the twentieth century. These were served by canals initially, until a charter for a railroad was granted by the state legislature in 1847. The railroad served all the towns in the area, extending as far west as Blackstone. As the railroad developed, additional mills were attracted to Medway. Population increased, roads were built, facilities were constructed, schools and churches were established, and villages developed at what are now known as Medway Village and West Medway (Medway's two National Register historic districts).

By 1900, Massachusetts's manufacturing industry had concentrated into cities including Lowell, Lawrence, and New Bedford. That shift, along with the additions of major highways in the vicinity, resulted in Medway's transformation into a community that is predominantly residential.

Like many suburban towns, Medway experienced significant population growth following the end of World War II. This growth began to accelerate during the 1960s, following the construction of I-495, when the growth rate exceeded that of the State as a whole, and Medway's population reached 7,938. During this time, a new suburban-style strip commercial center developed along Main Street (Route 109). As indicated in Table 3-1, growth slowed somewhat

during the 1970s (+5.8%) before accelerating again during the 1980s (+17.6%) and 1990s (+25.3%). Growth slowed significantly during the 2000s (+2.4%) but, is estimated to have picked up again between 2010 and 2016 (+4.4%). However, much of Main Street in the central business district has remained the same since the 60's, except the southeastern corner of Main and Holliston Streets which now includes Medway Commons, a shopping center housing a Shaw's Supermarket, CVS Pharmacy, and a number of other chain and local businesses.

During the 1990s, the Town began a series of infrastructure improvements to attract industry to the Medway Business Park at I-495 and Route 109. The park currently hosts a bowling ball manufacturer, a landscape design firm, a supplier and designer of outdoor playground equipment and landscape elements, and several other businesses. Most recently, Spencer Technologies relocated from Northborough to Medway to the former Cybex building in this industrial park.

C. Population Characteristics

This section discusses Medway's change in population characteristics over time, as well as in comparison to Norfolk County, and Massachusetts. Specific indicators include population growth, age distribution, school enrollment, density, income, ethnicity, and labor force.

Population Growth

Population growth in Medway slowed somewhat during the 1970s before accelerating again during the 1980s and 1990s. Growth slowed significantly during the 2000s but, is estimated to have picked up again between 2010 and 2016.

Table 3-1: Population Growth of Medway, 1970-2016

| Year | Population | Absolute Change | Percentage Change |
|------|------------|-----------------|-------------------|
| 1970 | 7,938 | N/A | N/A |
| 1980 | 8,447 | 464 | +5.8% |
| 1990 | 9,931 | 1,484 | +17.6% |
| 2000 | 12,448 | 2,517 | +25.3% |
| 2010 | 12,752 | 304 | +2.4% |
| 2016 | 13,308 | 556 | +4.4% |

Source: U.S. Census Bureau, American Fact Finder https://factfinder.census.gov

Notes: 1970, 1980, 1990, 2000, and 2010 from U.S. Census; 2016 Estimate from American Community Survey

This most recent growth trend is in line with that of Norfolk County and Massachusetts, as depicted in Figure 3-3.

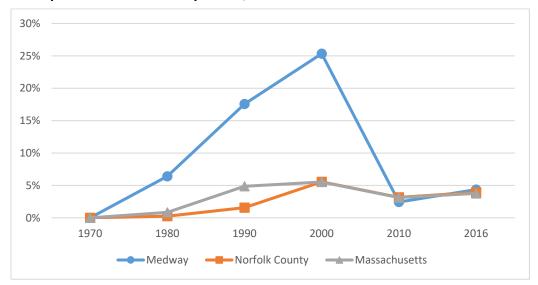


Figure 3-3: Population Growth Comparison, 1970-2016

Source: U.S. Census Bureau, American Fact Finder https://factfinder.census.gov

Notes: 1970, 1980, 1990, 2000, and 2010 from U.S. Census; 2016 Estimate from American Community Survey

Age Distribution

In 2015, the largest age group in Medway was between 45 and 64 years (34.4%), followed by 19 years or younger (27.7%), then 20-44 years (26.1%), and over 65 years (11.7%). Figure 2 indicates that in 2015, Medway had a higher percentage of its population under the age of 19 years than the county and state, 27.7% vs. 24.5% (county) and 24.0% (state). Medway had a lower percentage of its population between the ages of 20 and 44 years than the county and state, 26.1% vs. 31.2% and 33.6%. To contrast, Medway had a higher percentage of its population between the ages of 45 and 64 years than the county and state, 34.4% vs. 29% and 27.9%. At the other end of the scale, Medway has a lower percentage of its population age 65 years and older than the county and state, 11.7% vs. 15.3% and 14.6% in 2015.

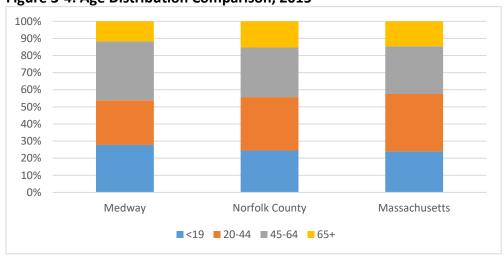


Figure 3-4: Age Distribution Comparison, 2015

Source: U.S. Census Bureau, American Fact Finder https://factfinder.census.gov

Notes: 2015 Estimates from American Community Survey

School Enrollment

As shown in Table 3-2, student enrollment in the Medway School District has been in decline since 2002. From 2002 to 2012, the student enrollment dropped by 366, or 12.9% of its population. Since then, the district lost an additional 166 students (6.7%).

Table 3-2: Medway's School District Enrollment, 2002-2017

| School Year | Population | Absolute Change | Percentage Change |
|-------------|------------|-----------------|-------------------|
| 2002-2003 | 2,848 | N/A | N/A |
| 2012-2013 | 2,482 | 366 | -12.9% |
| 2016-2017 | 2,316 | 166 | -6.7% |

Source: MA Department of Elementary and Secondary Education, http://www.doe.mass.edu/

Density

The average density in Medway nearly doubled from 684 persons per square mile in 1970 to an estimated 1,153 per square mile in 2016. Medway's average density has consistently been lower than the county-wide average density. Since 1990, Medway's average density has been higher than the average statewide density.

Table 3-3: Density (Persons per Square Mile), 1970-2016

| Year | Medway | Norfolk County | Massachusetts |
|------|--------|----------------|---------------|
| 1970 | 684 | 1,527 | 726 |
| 1980 | 728 | 1,531 | 732 |
| 1990 | 856 | 1,555 | 767 |
| 2000 | 1,073 | 1,642 | 810 |
| 2010 | 1,105 | 1,694 | 839 |
| 2016 | 1,153 | 1,760 | 873 |

Source: U.S. Census Bureau, American Fact Finder https://factfinder.census.gov

Notes: 1970, 1980, 1990, 2000, and 2010 from U.S. Census; 2016 Estimate from American Community Survey

It is important to note that average density is not necessarily an indicator of either the existence or quality of open space. Two communities with the same average density can have vastly different development patterns. One town could be developed into concentrated centers or villages surrounded by vast areas of open space, while the other could be characterized by low-density sprawl spread throughout its land area. This concept is further illustrated by the reduction in the population of Boston from 1950 to 2000 while the suburbs grew substantially. The City of Boston reached its highest population in 1950 at 801,444. This population was accommodated on about 46 square miles (about 4 times greater than the land area of Medway). In 2010, Boston's population was 23% less at 617,594. If the 183,850 people who left Boston were resettled in the suburbs at a density of 1,100 per square mile (almost equal to the 2010 density of Medway), it would take 167 square miles, an area about fourteen times larger than Medway, to accommodate them. Clearly, concentrating development in city, town and village centers is a key component of protecting and preserving open space.

Income

Medway's median household income in 2015 was \$110,241. This is well above the county (\$88,262) and state (\$68,563) figures.

Table 3-4: Income and Poverty, 2015

| Geography | Per Capita Income Estimate | Median Household Income Estimate | Percent of Individuals Below Poverty Level* |
|----------------|-------------------------------|--|---|
| Medway | \$47,240 | \$110,241 | 3.1% |
| Norfolk County | \$45,829 | \$88,262 | 6.1% |
| Massachusetts | \$36,895 | \$68,563 | 10.4% |

^{*} For whom poverty status was determined.

Source: American Community Survey 2010-2015 Five Year Estimates. Five-year estimate of income for the past 12 months and reported in 2015 dollars.

In comparing median household income in 2015 for Medway to its abutting towns, Medway has the second highest median household income (\$110,241) to Norfolk (\$141,278). The figures for Holliston (\$108,869), Franklin (\$108,272), Millis (\$92,042), Bellingham (\$88,460), and Milford (\$69,741) are lower. The number of families in Medway below the poverty level in 2015 was 3.1%. This is the second lowest level among the abutting towns which range from 3.0 % (Bellingham) to 11.2% (Milford). It is significantly lower than the Norfolk County (6.1%) and Massachusetts (10.4%) poverty levels.

Ethnicity

The 2010 U.S. Census indicated that Medway's population was 95.0% white. Other races included Blacks or African Americans (1.0%); American Indian and Alaska Native (0.2%); Asian (2.2%); Two or more races (1.3%); and Other (0.5%). Latinos of any race constituted 2.0%.

Table 3-5: Medway Demographic Profile

| | 200 | 2000 | | 2010 | | 2015 | |
|---------------------------------|--------|------|--------|------|--------|------|--------|
| | # | % | # | % | # | % | % |
| Total Population | 12,448 | 100 | 12,752 | 100 | 13,069 | 100 | +5.0 |
| Male | 6,032 | 48.5 | 6,205 | 48.7 | 6,199 | 47.4 | +2.8 |
| Female | 6,416 | 51.5 | 6,547 | 51.3 | 6,870 | 52.6 | +7.1 |
| Race | Race | | | | | | |
| White | 12,139 | 97.5 | 12,109 | 95.0 | 12,195 | 93.3 | +0.5 |
| Black or African American | 71 | 0.6 | 131 | 1.0 | 227 | 1.7 | +219.7 |
| American Indian & Alaska Native | 12 | 0.1 | 30 | 0.2 | 0 | 0 | -100.0 |
| Asian | 120 | 1.0 | 280 | 2.2 | 408 | 3.1 | +240.0 |
| Hispanic or Latino | 105 | 0.8 | 250 | 2.0 | 328 | 2.5 | +212.4 |

Source: U.S. Census Bureau, American Fact Finder https://factfinder.census.gov Notes: 2000 and 2010 from U.S. Census; 2015 from American Community Survey

Labor Force and Industry

In 2016, Medway had a labor force of 7,229 with 7,019 residents employed and 210 unemployed. Medway experienced a 2.9% rate of unemployment, lower than both Norfolk County's overall rate of 3.2% and Massachusetts's rate of 3.7%.

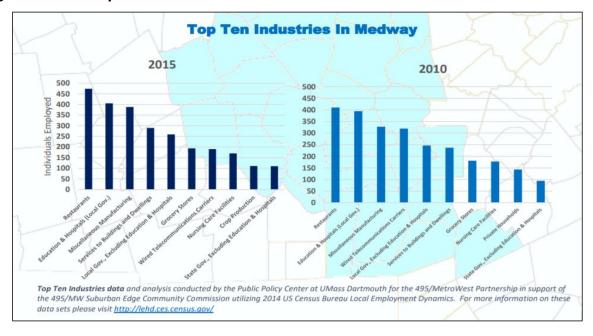
Table 3-6: Labor Force and Unemployment Data, 2016

| Geography | Labor Force | Employed Persons | Unemployed Persons | Unemployment Rate |
|----------------|-------------|---------------------|-----------------------|----------------------|
| Medway | 7,229 | 7,019 | 210 | 2.9% |
| Norfolk County | 370,658 | 358,675 | 11,983 | 3.2% |
| Massachusetts | 3,583,500 | 3,473,400 | 110,100 | 3.7% |

Source: MA Executive Office of Labor and Workforce Development. http://lmi2.detma.org/lmi/lmi lur a.asp

Medway's industry base is structured in support of the residential community. According to profiles developed by the 495/MetroWest Partnership, the greatest number of jobs are provided by restaurants and eating establishments (470), followed by education and hospitals (413), and miscellaneous manufacturing (362). These were also the same top three industries in 2010. More workers live in Medway and commute elsewhere (6,157) versus workers who work in Medway and live elsewhere (2,749). Approximately 642 residents live and work in Medway. The number of employers in Medway has been increasing at a steady rate. In 2001, there were 287 employers in town, and by Q2 2016 this number had increased to 393. Between 2010 and 2016, the fastest growing industries were crop production (106 jobs added), restaurants and eating places (73 jobs added), building services (43 jobs added), machine shops (34 jobs added), and miscellaneous manufacturing (31 jobs added).

Figure 3-5: Industry Distribution



D. Growth and Development Patterns

Patterns and Trends

As discussed above, Medway began as an agrarian community. Waterpower led to the development of mills during the Industrial Revolution. People settled into villages at Medway Village and West Medway. Much of the remainder of town was agricultural.

In 1971, the "developed" land in Medway (including recreation, residential, commercial, industrial, mining, urban open land, transportation, and waste disposal) totaled 1,732 acres or 23.2% of the total land area in Medway. The "undeveloped" area (including crop land, pasture, forestland, wetland, open land, water and woody perennial) totaled 5,682 acres, or 76.1% of the total. By 1985, the developed land had increased to 2,445 acres, a change of 712 acres. By 1999, the developed land increased further to 3,381 acres – more than 45% of the Town's land area. Thus, developed land almost doubled (an increase of 95%) from 1971 to 1999 while population increased by only 63% (from 7,938 to 12,448) during roughly the same time (1970 to 2000).

Acreage devoted to commercial and industrial uses only increased by 98 acres during this period. Residential land area, however, increased by 1,518 acres, accounting for 92% of the increased developed land. Almost two-thirds of this increase in residential land (986 of the 1,518 acres) was in the category of low density residential (lots larger than 1/2 acre).

The 1970 population of 7,938 occupied a total of 1,478 acres in 1971, or about .19 acres per person. Another way of looking at it is Medway accommodated 7,938 people in 1971 on 1,478 residential acres. To add 4,510 people by 2000, it required an additional 1,518 acres of residential land. This is 0.34 acres per person, almost twice the amount of land per person used in 1971.

The biggest loss of undeveloped land was in the category of forestland, which decreased by 1,040 acres between 1971 and 1999. Pasture land was almost completely eliminated during this period (from 246 acres to 30) and crop land was reduced by 298 acres.

Table 3-7 details the number of single-family new house construction building permits issued in Medway from 1997 to 2014. While the number of permits issued annually dipped below 10 from 2008 to 2012, 2013 and 2014 saw a surge of 34 and 26, respectively.

Table 3-7: Single-family New House Construction Building Permits

| Year | # Buildings | Average Cost |
|------|-------------|--------------|
| 1997 | 78 | \$144,100 |
| 1998 | 53 | \$170,200 |
| 1999 | 63 | \$178,200 |
| 2000 | 57 | \$230,400 |
| 2001 | 65 | \$198,200 |
| 2002 | 38 | \$198,400 |
| 2003 | 22 | \$202,500 |
| 2004 | 22 | \$257,400 |
| 2005 | 30 | \$289,200 |
| 2006 | 11 | \$281,000 |
| 2007 | 11 | \$336,200 |
| 2008 | 8 | \$326,600 |
| 2009 | 6 | \$342,200 |
| 2010 | 9 | \$338,700 |
| 2011 | 6 | \$326,900 |
| 2012 | 5 | \$399,000 |
| 2013 | 34 | \$211,600 |
| 2014 | 26 | \$213,100 |

Source: http://www.city-data.com/city/Medway-Massachusetts.html

Infrastructure

The significant infrastructure elements in Medway are its transportation network, water service, sewer service, and stormwater system. Each of these is discussed briefly below.

Transportation

Medway is home to between 80 and 90 miles of public roads including access to two major roadways, Route 109 and Route 126. Route 109 runs east-west through the center of town and divides Medway in half. With Route 128 and I-495 at either end of it, Route 109 becomes a very convenient way to reach many destinations. Route 126 is a north-south roadway, and is heavily trafficked for its access to Bellingham, Holliston, and I-495. These thoroughfares are supported by smaller roads such as Village Street, which is parallel to Route 109 until it joins Route 109 in Millis. It also provides convenient access into Bellingham and I-495. There are also numerous permanent private roads and unaccepted streets.

MBTA commuter rail service to Boston's Back Bay and South Stations is available in neighboring Franklin and Norfolk. Rush hour shuttle service through the Greater Attleboro Regional Transit Authority from Medway to the Norfolk rail station was initiated in 2008 and has been very successful.

Sidewalks are an important element of any community's transportation network. Although sidewalks exist on many Medway roads, residents report that they are not in good condition, and often do not provide critical connections for safe pedestrian routes to popular destinations.

See Medway Rights of Way and Sidewalk Map on the next page.

The Medway Department of Public Works prepared a Six Year Road and Sidewalk Plan 2019-2024, with scheduled improvements and costs noted in the table below. During the next six years, Medway will invest just under \$5 million in sidewalk construction.

Table 3-8: Six Year Sidewalk Plan

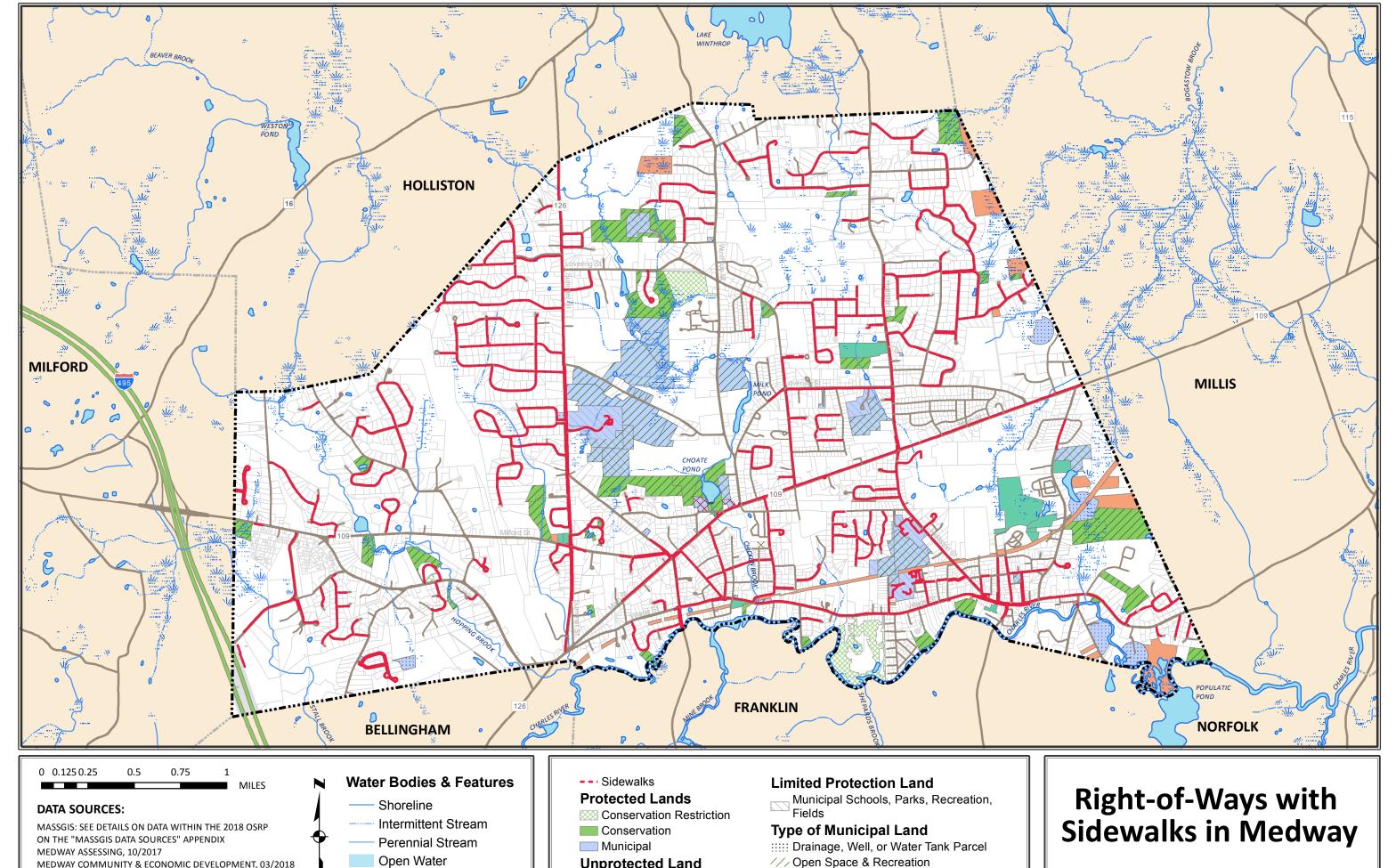
| STREET NAME | SIDEWALK COST | | | |
|---|---------------|--|--|--|
| YEAR 1 - 2019 | | | | |
| High Street | \$124,537 | | | |
| Wellington Street | \$135,392 | | | |
| Franklin Street | \$115,645 | | | |
| Center Street | \$53,720 | | | |
| Lincoln Street | \$146,206 | | | |
| Awl Street | \$26,459 | | | |
| North Street | \$143,086 | | | |
| Church Street | \$12,920 | | | |
| Barber Street | \$101,945 | | | |
| Main Street (Village Street to Bellingham Line) | \$50,000 | | | |
| YEAR 1 TOTAL | \$909,910 | | | |
| YEAR 2 - 2020 | | | | |
| Holbrook Street | \$110,665 | | | |
| Laurelwood Lane | \$151,691 | | | |

| Main Street (Highland Street to Summer Street) | \$300,000 | | | |
|---|-------------|--|--|--|
| Daffodil Lane (one side only) | \$46,920 | | | |
| Stall Brook Road | \$85,302 | | | |
| Stoney Ridge Road | \$27,880 | | | |
| YEAR 2 TOTAL | \$722,448 | | | |
| YEAR 3 - 2021 | | | | |
| Alexandria Drive | \$67,874 | | | |
| Birch Bark Road | \$70,417 | | | |
| Maple Leaf Lane | \$47,000 | | | |
| Sun Valley Drive | \$135,000 | | | |
| Woodland Road | \$62,538 | | | |
| YEAR 3 TOTAL | \$382,829 | | | |
| YEAR 4 - 2022 | | | | |
| Cynthia Circle | \$32,721 | | | |
| Broad Street | \$106,222 | | | |
| Village Street (Legion Street to Millis) | \$739,000 | | | |
| YEAR 4 TOTAL | \$877,942 | | | |
| YEAR 5 - 2023 | | | | |
| Dogwood Lane | \$252,862 | | | |
| Wildwood Road | \$60,643 | | | |
| Azalea Drive | \$178,219 | | | |
| Stanley Road | \$213,700 | | | |
| Mallard Drive | \$35,216 | | | |
| Spring Street | \$53,279 | | | |
| Autumn Road | \$157,158 | | | |
| Quail Drive | \$54,785 | | | |
| Milford Street (Summer Street to Highland Street) | \$451,200 | | | |
| YEAR 5 TOTAL | \$1,457,061 | | | |
| YEAR 6 - 2024 | | | | |
| Oakland Street (Main Street to Senior Center) | \$200,000 | | | |
| Main Street (Richard Street to Lee Street) | \$350,000 | | | |
| Village Street (Cottage Street to High Street) | \$67,000 | | | |
| YEAR 6 TOTAL | \$617,000 | | | |

Although Medway is seeking to improve and expand upon its sidewalk network, options for cycling remain limited due to older, narrow roads with limited shoulders which limit options for adding separate bike lanes or striping lanes within the shoulder. Some interest in developing a multiuse rail trail connecting to neighboring towns was expressed by the public throughout this project. Town officials are reviewing ownership along the abandoned rail corridor right-of-way. The existing off-road trail network is dedicated to hiking, although mountain biking does occur on some trails.

Water Supply

The Town of Medway's water supply (Medway Water Division) is sourced through four groundwater wells, all of which are part of the Charles River Basin. Approximately ¾ of the



Unprotected Land

■ Municipal Buildings & Facilities ≫ Historic Preservation

Municipal Vacant

MEDWAY COMMUNITY & ECONOMIC DEVELOPMENT, 03/2018

PREPARED BY MACKENZIE LEAHY

*** Wetland

/// Open Space & Recreation

Affordable Housing Trust

TOWN OF MEDWAY

JUNE 20, 2018

town is serviced by the public water supply, and ¼ is on private wells. The Medway water distribution system consists of four groundwater supply sites, two water storage facilities and approximately 75 miles of water mains. The system serves approximately 13,000 residents. The four wells combined produce an average of 300 million gallons of water each year (Medway 2016). Well #1 or Populatic Street well is a gravel-packed well located off Populatic Street. Well #2 or Oakland Street well is a 24-inch well, located off of Oakland Street, and Well #3 or Village Street well is an 8-inch diameter well located off Village Street. Well #4 is at Industrial Park Road. Medway occasionally exceeds the authorized daily withdrawal volumes for its wells and is under order by MassDEP to issue a mandatory water ban annually.

The wells are located in two separate Zone IIs. The Zone II for Well #1 and #3 extends into Franklin, and the Zone II for Well #2 extends into Millis. Each well has a Zone II area around it of 400 feet. The wells are located in an aquifer with a high vulnerability to contamination due to the absence of hydrogeologic barriers (i.e. clay) that can prevent contaminant migration. All three wells have lime and polyphosphate added for corrosion control. Fluoride is also added for dental health. Water is stored in two storage tanks, one located on Lovering Street and the other on Highland Street, with a combined capacity of 2.8 million gallons (Medway 2002). There is a Groundwater Protection Overlay Zoning District that regulates potentially harmful land uses within the Zone II areas.

The Town of Medway is currently addressing the near and long-term integrity of the municipal water supply. The primary focus of the community is the reduced water quality due to elevated iron and manganese levels entering the system from natural sources. The rate and frequency of withdrawal from the sources is managed to the extent practicable to reduce the iron and manganese entering the system. Medway's water service area includes mainly residential demand, which makes up approximately ninety percent (90%) of the system's water use, according to the Town's Annual Statistical report submitted to MassDEP. The remaining demand is commercial and industrial. According to the 2013 Water Integrity Report, the water pumping records for 2015 and 2016 indicate that the Town of Medway water supply capacity (0.947 to 1.140 mgd), may be exceeded by system water use prior to 2023 (WRC-OWR projection). Leak detection and repair is a priority. Additionally, Medway should pursue water supply improvement options that will increase water supply capacity. Recommended options to be investigated included:

- Install iron and manganese removal plant to treat Oakland and Village water supplies to allow longer run times and greater volume per day.
- Populatic replacement well to return capacity back to 600 gpm.
- Install satellite wells at Oakland to extend time between well cleanings resulting in greater volume per day.
- Locate new water supply; one location with potential as a water supply is Chicken Brook.

Wastewater System

The wastewater system is comprised of approximately forty-four miles of gravity sewer that discharges into the sewage treatment facility operated by the Charles River Pollution Control District, and services 75% of the community. Through its recent sewer extension project, the Department of Public Works now operates and maintains a sewer pump station located in the Trotter Drive Industrial Park area. The Department of Public Works continues to make improvements for major sewer trunk line repairs with several inflow and infiltration problems corrected and will continue to do so. Options for recharging the aquifer with treated wastewater

rather than discharging to the Charles River are being explored as part of design solutions to address the water shortages described above.

Stormwater System

Medway is a NPDES Municipal Separate Storm Sewer System (MS4) regulated community. As such, the Town has been implementing the draft 2010 NPDES Phase II permit, despite the continued delay in issuance of a Final Permit by the EPA. Among these efforts are an intense public outreach program to lay the groundwork for creation of a stormwater utility. A Stormwater Task Force has been convened, consisting of representatives from the Board of Selectmen, Department of Public Works, Water and Sewer Commission, Charles River Pollution Control District, Planning and Economic Development Board, Conservation Commission, and Finance Committee, to discuss strategies related to the new MS4 permit and other water related issues. With funding provided by a grant from MassDEP, the Town has developed a draft Stormwater Utility Implementation Plan. Work also continues for stormwater infrastructure identification, mapping and testing. Additionally, the Town has hired an Environmental Compliance Officer who will work with DPW and Conservation Commission personnel to ensure the Town is complying with all required regulations and maintenance of stormwater structures in town, as well as, private stormwater management systems that affect wetlands, waterways and groundwater. All 425 known outfalls in Medway have been located with GPS. About 25% remain to be inspected for dry weather flows. Some illicit connections have been detected; most related to basement sump pump connections.

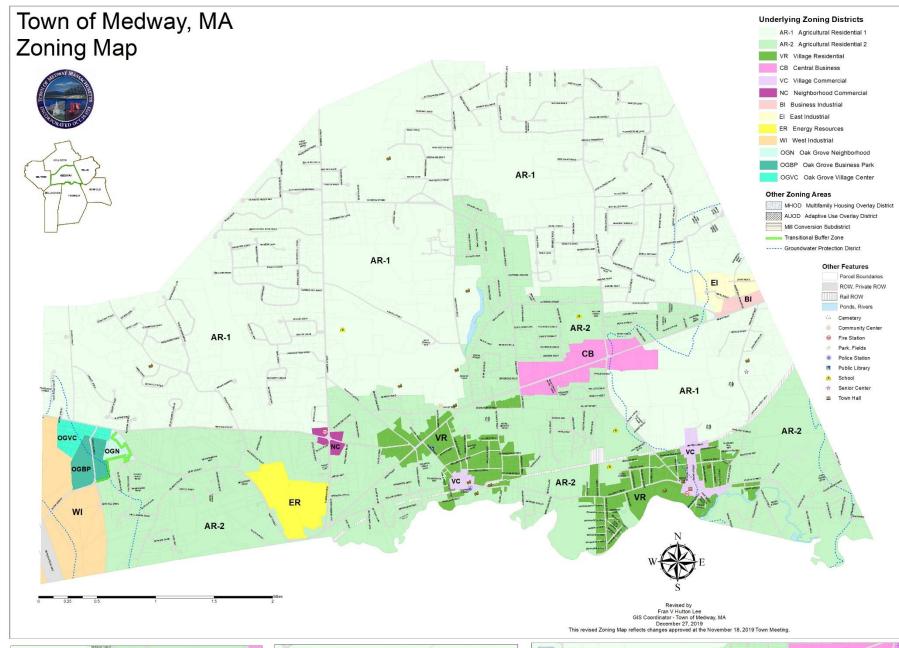
It should be noted that the Town has contracted with Kleinfelder, Inc. in the development of an Integrated Water Resource Management Plan (IWRMP). This plan looks to treat all of the above systems as integrated and interactive. The resulting planned actions and investments will work in harmony for an overall improvement in water resources for the community.

Long-Term Development Patterns

The current *Zoning Bylaw* provides for three residential districts: two agricultural-residential (AR), and one village residential (VR). Zone AR-I requires minimum lot sizes of 44,000 ft² and 180 feet of continuous frontage. Zones AR-II and VR require minimum lot sizes of 22,500 ft² and 150 feet of frontage. There are five designated commercial districts and three industrial districts. Medway's *Zoning Map* is included on the next page.

A major increase in development has occurred since 1991. During that time period, most of Medway's residential development has been in the form of conventional subdivisions. However, the *Zoning Bylaw* also provides special permit options for open space residential developments (OSRD), adult retirement community planned unit developments (ARCPUD), and multi-family housing developments, all of which have been permitted and constructed or are under construction.

Like many of its neighboring communities, Medway has recently approved a series of 40B comprehensive permit residential developments whereby municipalities are required to relax standard zoning requirements for developers who provide at least 25% of the dwellings as affordable housing units. When completed, this will add 418 households to Medway's population.



| Zoning District | Minimum Lot Size (sq. ft.) | Minimum Frontage (ft.) | Minimum Setbacks (ft.) Front, Side, Rear |
|--------------------|----------------------------------|---------------------------|--|
| AR-1 | 44,000 | 180 | 35, 15, 15 |
| AR-2 | 22,500 | 150 | 35, 15, 15 |
| VR | 22,500 | 150 | 20, 10, 10 |
| СВ | 10,000 | NA | 10, 10, 25 |
| VC | 10,000 | NA | 20, 10, 10 |
| NC | 20,000 | NA | 35, 15, 15 |
| ВІ | 20,000 | 75 | 25, 15, 15 |
| EI | 20,000 | 100 | 30, 20, 30 |
| ER | 20,000 | 150 | 30, 20, 30 |
| WI | 40,000 | 100 | 30, 20, 30 |

Please be advised that not all Dimensional and Density Regulations are included in the table above. Please refer to the Medway Zoning Bylaw, Section 6.1 Dimensional and Density Regulations, and Section 9 Oak Grove Park Districts.

ADAPTIVE USE OVERLAY DISTRICT (AUOD)

To promote economic development and to preserve community character by encouraging conversion of existing residential buildings in certain older neighborhoods to limited business and mixed uses. Special permit use.

MULTIFAMILY HOUSING OVERLAY DISTRICT (MHOD)

To encourage the provision of a diversity of housing types, to promote pedestrian oriented developments, and to increase the number of affordable housing units in a designated area by authorizing multifamily dwelling units and developments in a designated area. Special permit use.

FLOOD PLAIN DISTRICT

To prevent public emergencies resulting from water quality contamination and pollution, to avoid loss of utility services, to eliminate costs of responding to and cleaning up, and to reduce damage to public and private property all resulting from flooding waters.

GROUNDWATER PROTECTION DISTRICT

To protect the MA Department of Environmental Protection designated Zone II recharge areas in order to ensure an adequate quantity and quality of drinking water for Medway residents, institutions and businesses and to preserve and protect existing and potential sources of drinking water supplies.

Please also refer to the Medway Zoning Bylaw, Section 5.6, Overlay Districts, and Section 8, Special Regulations.

Prepared for the Medway Planning and Ecopnomic Development Board 155 Village Street, Medway, MA 02053 508-533-3291 planningboard@townofmedway.org

The information on this map is believed to be correct, but errors in data entry or transmission may occur.

The map is not to be used for legal purposes.

The information on this map is suitable to chappe or revision at any time.







Table 3 -9: Medway 40B Comprehensive Permit Developments

| Development Name | Location | Approval Date | Type of Development | Number of Dwelling units |
|---------------------|--|--|---------------------------|--|
| Timber Crest | Entrances from: Holliston Street Winthrop Street Fairway Lane | May 31, 2017 | Single-family subdivision | 136 single family, detached homes |
| Glen Brook | Glen Brook Way off West Street | August 16, 2018 (Phase II approval) Original Decision date: August 2, 2017 (Phase I) | Apartments | 48 family 44 age restricted 92 total units (100% affordable) |
| 39 Main Street | 33-39 Main Street | July 31, 2019 | Apartments | 190 units |

A buildout analysis completed in 2000 by the Metropolitan Area Planning Council (MAPC) projected that there are an additional 2,617 developable acres in Medway. This translates into an estimated 2,057 additional residential units, 5,658 additional residents (for a total buildout population of 18,106), more than 4.1 million square feet of commercial and industrial space, about 1,234 additional school children (for a buildout total of 3,829), an additional demand for water of 735,033 gallons per day (for a buildout total of 1.9 million gallons per day), and an additional 39 miles of roadway.

By agreement with the <u>Massachusetts Secretary of the Commonwealth</u>, the UMass Donahue Institute (UMDI) has produced population projections for all Massachusetts municipalities at 5-year intervals to 2035, using a model developed by <u>Dr. Henry Renski</u>, Associate Professor of Regional Planning at UMass Amherst. For Medway, the 2020 projection of 13,146 is lower than previous forecasts by MAPC and the Massachusetts Institute for Social and Economic Research (MISER) for 2020: 14,491 (MAPC) and 15,080 (MISER). The MAPC 2000 Buildout Analysis provides an even greater estimated population based on 10% annual growth rate, forecasting the Town's buildout capacity at 18,106 people around 2040. The Buildout Analysis forecast is inconsistent with the recent projections from UMDI, and unlikely given the only 2.4% increase between 2000 to 2010, and 4.4% from 2010 to 2016.

Table 3-10: Population Projections 2015-2035

| | PROJECTIONS | | | | |
|-------------|-------------|--------|--------|--------|--------|
| Census 2010 | 2015 | 2020 | 2025 | 2030 | 2035 |
| 12,752 | 13,153 | 13,146 | 13,312 | 13,502 | 13,526 |

Source: http://pep.donahue-institute.org/

SECTION 4 ENVIRONMENTAL INVENTORY AND ANALYSIS

A. Geology, Soils & Topography

Medway's geology is largely a result of glacial activity that occurred about 20,000 years ago. The terrain ranges in elevation from 135 to 370 feet above mean sea level.

Most soils in Medway are fine sandy loams (Canton, Merrimack, Paxton, Ridgebury, Scituate, Woodbridge). These soils range from nearly level to steep and very deep. They are well-drained and located on glaciated uplands. Erosion on slopes can be a hazard, but fine sandy loams are well-suited for agriculture, forests, and meadows. They are also suited well for building foundations, making these soil types desirable for development, though slopes can limit their use.

Pockets of sandy loam (Hinckley), loamy sand (Deerfield), and silt loam (Rippowam, Raynham) also run through the town. Hinckley is well-suited for crops, lawns, and pasture and is sometimes found to be wooded. Because of the high permeability of Hinckley soils, there is a danger of septic tank effluent polluting groundwater. Very fine sandy loam and mucky sandy loam (Scarboro, Birdsall) form the substrate for wetland areas in town and support the important wetland ecosystem services of flood protection and the replenishment and filtration of drinking water resources (Conley & Serrill).

Medway is comprised of approximately 75% sewer and 25% individual septic systems, so soil types are extremely important when determining future development options and infrastructure needs. The area identified as the "west side" of Medway as known to have heavy, wet, rocky soils mingled with clay, producing chestnut, oak, maple, and hickory, with surprisingly rapidity. Under cultivation, this is the best grass providing land in the town. (History of Medway). However, these soils are not necessarily conducive or suitable for the installation of septic systems.

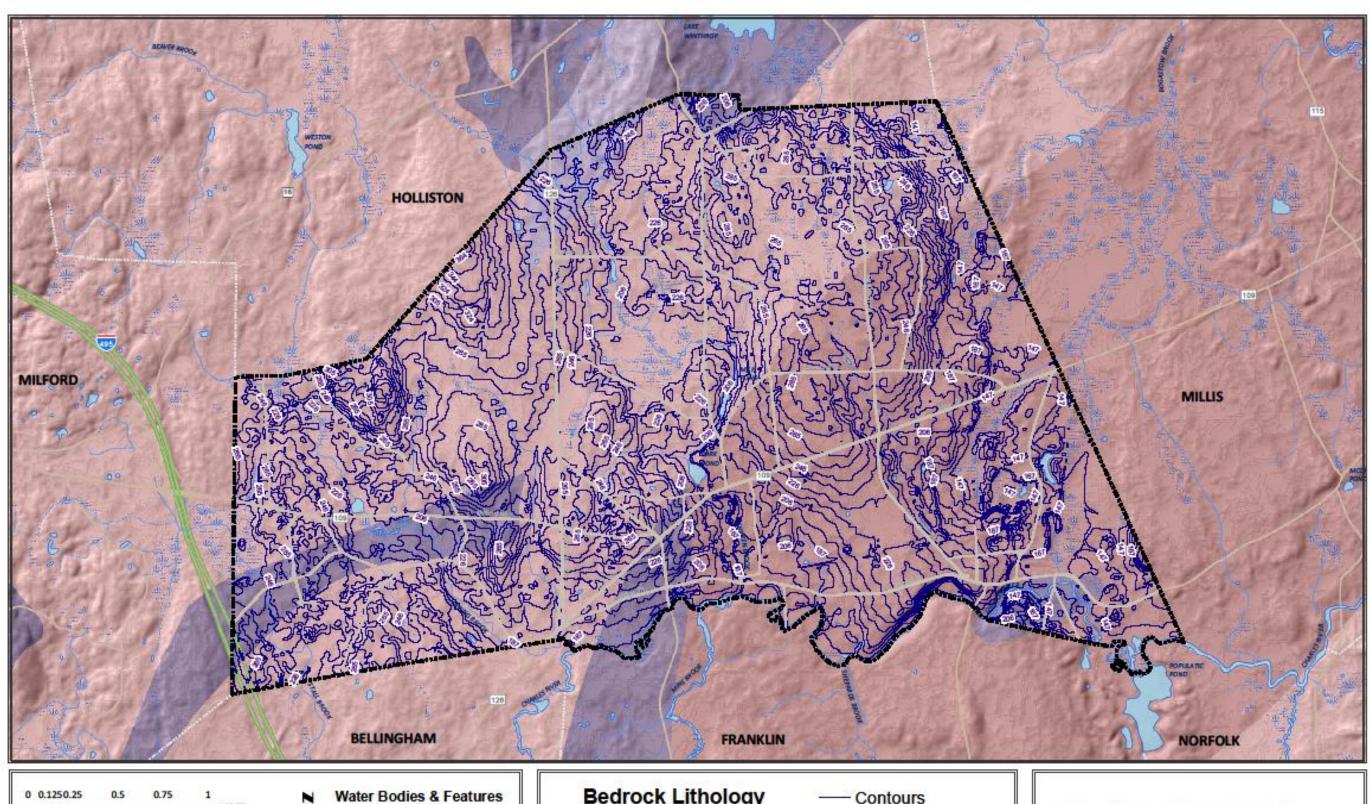
See Bedrock Geology Map and the Map of Natural Drainage Conditions of Soil Areas Suitable for Development on the following pages.

B. Landscape Character

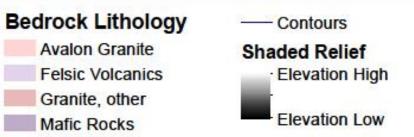
Medway offers a diverse landscape that includes suburban, small town, historic, rural, and agricultural character. The community includes hills, forests, fields, stone walls, ponds, rivers, streams, marshes, and swamps. These elements provide a pleasant and productive environment in which to live and work.

With its location along Route 109, and containing Choate Pond and the Charles River, Medway blends old and new into its existing rural character. By incorporating open spaces, playgrounds and natural trails, Medway maintains its undeveloped feeling; a characteristic that could be lost in the future due to increasing traffic and loss of wildlife habitats.

The corridor between Summer and Winthrop Streets, through which Chicken Brook runs, retains much of the community's historic, rural character. The historic New England pattern of settlements clustered amid fields and forest remains in areas of Medway. Historic clusters in

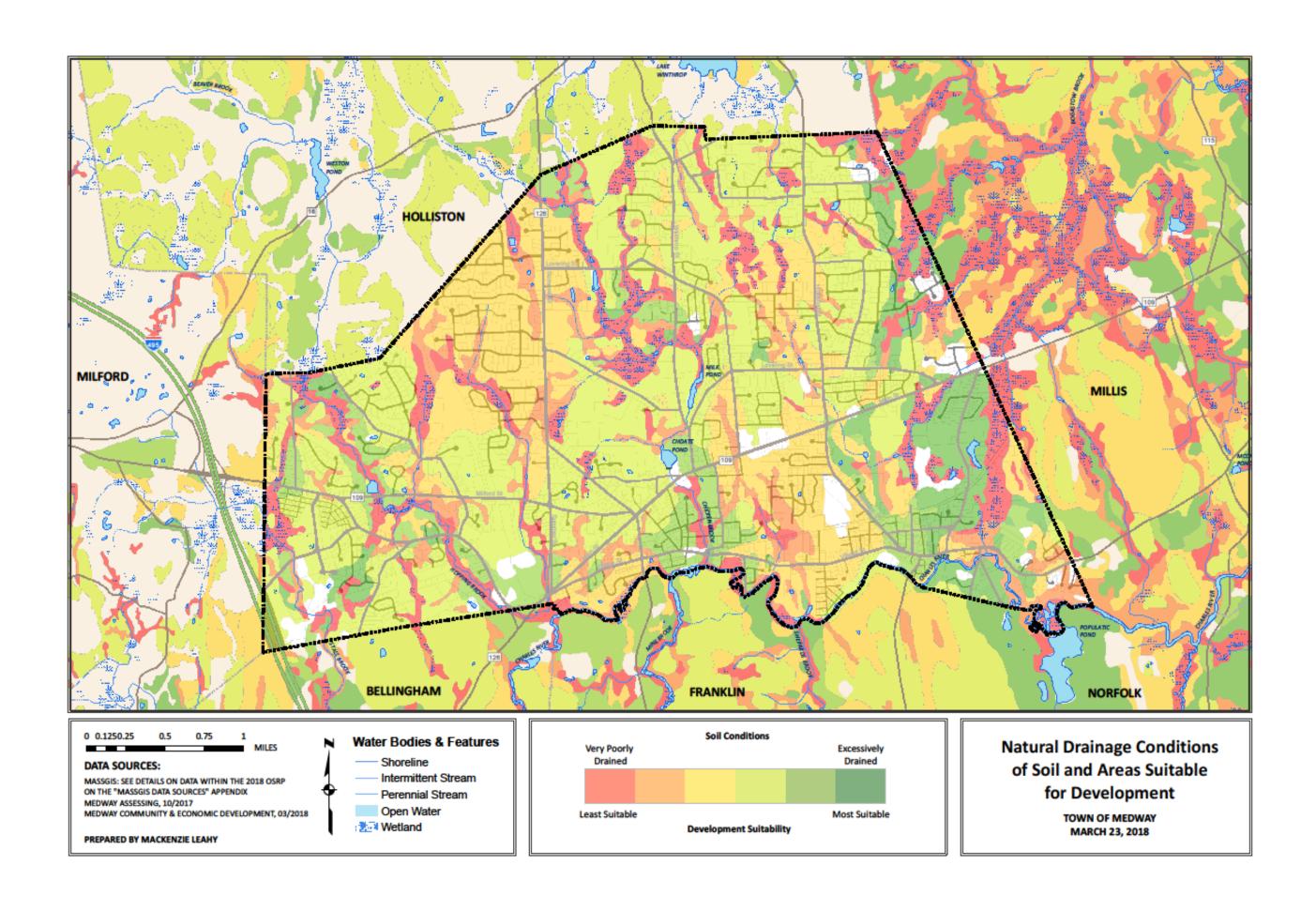






Bedrock Geology

MARCH 23, 2018

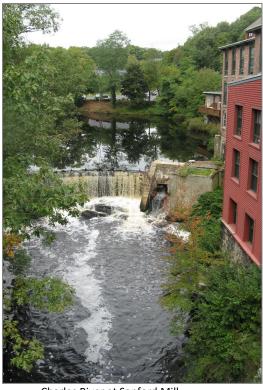


Medway Village and West Medway, an emerging modern village at the intersection of Routes 109 and 126, and Village Street, which runs across the southern end of town from Bellingham to Millis, all showcase historic homes and represent a significant part of Medway's character.

Route 109, also known as Main Street, runs through the middle of Medway in an east-west direction and makes up the commercial core of the community. It is also the site of many historic homes. The commercial area is largely suburban in character, having been developed primarily from the 1960s to the present.

C. Water Resources

Rivers

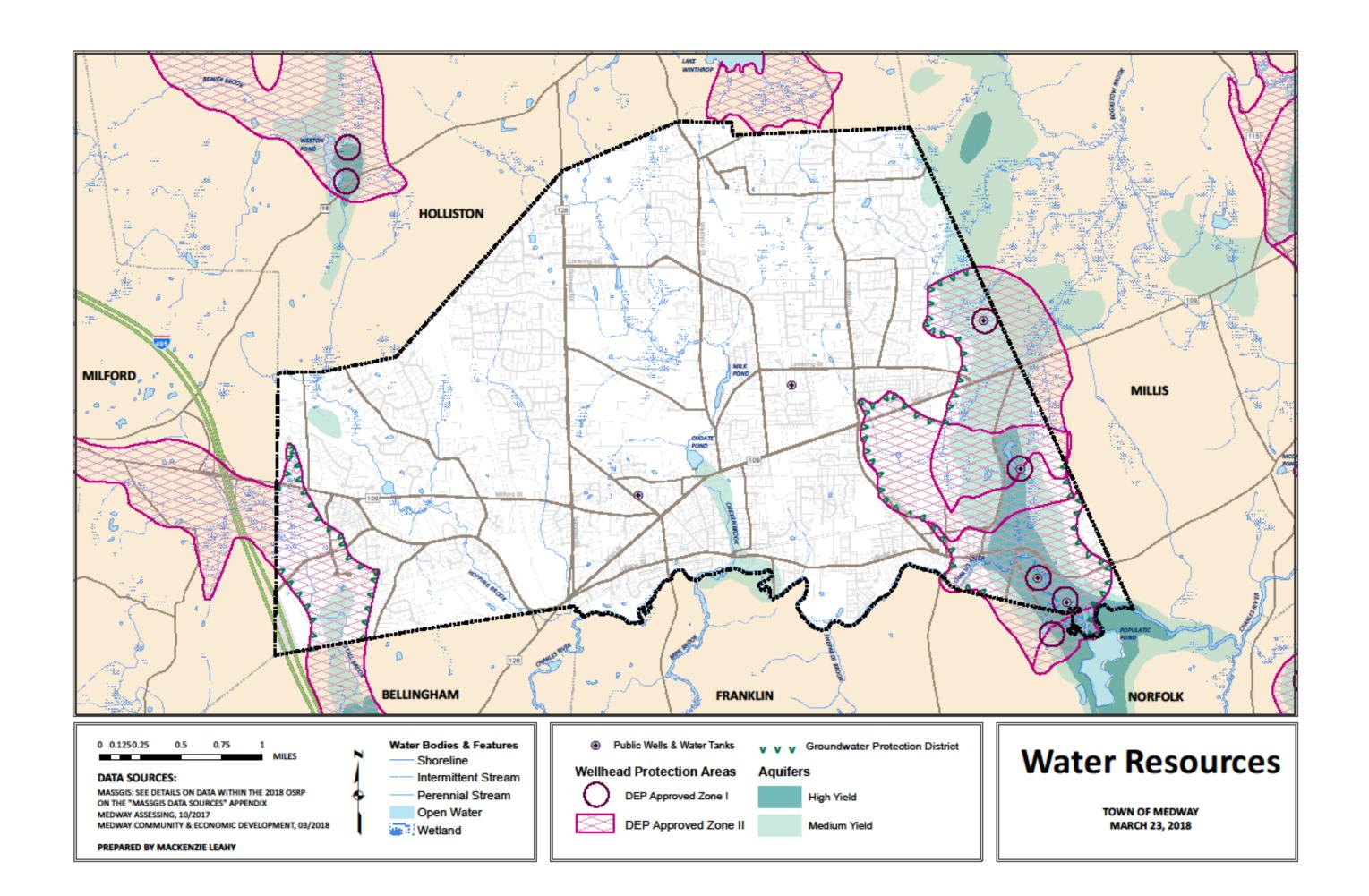


Charles River at Sanford Mill

Medway lies entirely within the Charles River watershed area which includes twenty-three communities and covers a drainage area of 308 square miles. The Charles River is the most significant water body in Medway and forms two-thirds of Medway's southern border with the Town of Franklin. Surface waters compose about 0.5 percent of Medway's area. A network of wetlands and streams including Hopping Brook and Stall Brook weave through the western portion of Medway on their way to the Charles River. Additionally, another important water resources within Medway are Chicken Brook, most of which has been protected through successful acquisition of land surrounding the brook, and the Black Swamp, located in the northeastern part of Medway. See Water Resources Map on the following page.

During the Industrial Revolution, the Charles River was widely used as a power source for manufacturing mills, including in Medway. Pollutants discharged from these mills led to significant environmental damage to the river. The Charles River Watershed Association (CRWA) was formed in 1965 in response to the polluted conditions of the river. Ongoing efforts to clean the Charles River have resulted in ninety percent of it being currently swimmable, according to the CRWA.

The community's brooks and streams are all tributaries of the Charles River and thus contribute to its water quality, streamflow, and temperature. The major tributaries are Chicken Brook, Hopping Brook, and Stall Brook. Chicken Brook flows north to south through the central part of town in a corridor with many opportunities for recreation known as the Chicken Brook Ecological Corridor. This area includes wildlife habitat, agricultural fields, hiking trails, and



Choate Park. Chicken Brook's flow becomes weak in the summer. Hopping Brook originates in Holliston and meanders through Medway from its northwest corner to join the Charles River where it begins to form the border between Medway and Franklin. Hopping Brook is protected, in part, by US Army Corps of Engineers land. Stall Brook runs through the southwestern corner of Medway (Master Plan 2009).

Ponds

Choate Pond, along with Milk Pond, is fed by Chicken Brook, a tributary to the Charles River. Choate Pond is the largest body of water in Medway, formed by the Chicken Brook Dam located in the heart of Choate Park.



Choate Pond - Photo by Tim Rice

Choate Pond was once the main attraction at Choate Park with a swimming beach for residents. More frequent testing, more stringent requirements, and warmer water temperatures led to frequent closers during the swimming season due to high bacteria counts. As a result, Choate Pond has been closed for swimming. In 2004, Town Meeting approved funding to clean up Choate Pond. Two of the three proposed tasks have been completed with minimal improvements in water quality. The last measure had both technical and regulatory challenges that far exceeded the Town's funding appropriation and was unlikely to be successful. In 2018, the Park underwent significant improvements for recreational use. The former beach has been replaced with native woodland vegetation to restore some habitat structure and function around the pond.

Wetlands

Wetlands are scattered throughout town, with heavier concentrations along major waterways. Most of the wetlands are deciduous forested wetlands, predominantly red maple swamps. There was no net loss of wetlands in Medway in the period from 1971 to 1999. The Black Swamp, which straddles the town line between Medway and Millis, is the most prominent wetland in Medway with great wildlife habitat and minimal human access.

The Chicken Brook Wildlife Corridor, first identified in the 2010 OSRP, is currently protecting a considerable amount of wetlands resources through permanent land protection. This corridor provides not only wetland protection, but a scenic walking path and boardwalk open to the public.

During the 1970's, the U.S. Army Corps of Engineers (USACE) acquired hundreds of acres of wetlands and low-lying property along the Charles River and its tributaries for flood control purposes. This assemblage of lands is known in its entirety as the Charles River Natural Valley Storage Area. It is a flood control project initiated as a "passive" means of protecting the environment and reducing downstream flooding by ensuring that existing low-lying areas in the flood plain were not altered in any way that would reduce their capacity to contain, slow, or absorb flooding.



Photo by Alan Earls

The Charles River Natural Valley Storage lands are located in Millis, Medfield, Norfolk, Franklin, Holliston, Needham, Sherborn, Bellingham, Dedham, Dover, Medway, Newton, Wrentham, Walpole, Natick, and Boston. In several instances, these lands have been managed and further developed for conservation and recreation purposes. (The Charles River Meadowlands Plan for Bellingham, Franklin, and Medway).

Wetland resources are protected through regulations administered by the Medway Conservation Commission and the Massachusetts Department of Environmental Protection. Medway has a local Wetlands Protection Bylaw that provides greater protection than the Massachusetts Wetlands Protection Act. Together they ensure that wetlands continue to perform their valuable functions for water quality and watershed protection, wildlife habitat, flood control, groundwater recharge and pollution control.

Vernal Pools

There are seventeen Certified Vernal Pools and sixty-seven Potential Vernal Pools in Medway. The Massachusetts Department of Fish and Game (MassWildlife) believes that the potential vernal pools are likely to pass certification standards if the certification process was completed. MassWildlife encourages the Town to certify pools on its own property and require developers to certify pools on any property requiring permits from the Town (Harper). Medway does contain a unique area of unprotected private land which currently has five Certified Vernal Pools and three Potential Vernal Pools all of which are clustered and provide specialized habitat for specific species unique to these habitats. It should be noted that DEP recognizes these areas as "cluster vernal pools" and considers these clusters susceptible to decline from development. The Medway Wetlands Protection Bylaw provides 100' Vernal Pool Habitat protection to vernal pools whether or not they are certified in advance. This is a "No Disturb Zone" which means the Conservation Commission does not allow disturbance of this land.

See Map of Core Habitats and Critical Natural Landscapes on the next page.

Drinking Water

The public water supply system is discussed under infrastructure in Section 3.

Aquifer Recharge Areas

Drinking water for Medway's residents and businesses originates from four local groundwater supply wells installed in sand and gravel deposits. These wells tap the medium and high yield aquifer of the Charles River basin underlying the eastern and southeastern part of town. The Charles River basin is fed by the Bugastow sub basin and the Chicken Brook-Charles River sub basin. The most productive aquifer is connected with the Charles River in the southeastern corner of town near the borders with Franklin and Norfolk (Conley & Serrill). The Water Resources Map included in Section 3 illustrates the sub-basins, Town wells, aquifers and Zone II water supply protection areas.

<u>Populatic Well</u> – Medway's largest well, the Populatic well is a gravel packed well installed in 1942. The water supply carries a MassDEP maximum withdrawal rate of 607 gpm, however the present maximum pumping rate is set at 425 gpm due to well water level restriction.

Oakland Well – The Oakland well is a gravel packed well installed in 1965. The water supply carries a MassDEP maximum withdrawal rate of 410 gpm, however the present maximum available rate is 275 gpm due to well water level restriction.

<u>Village Well</u> – The Village well is a gravel packed well rehabilitated in 2007. The water supply carries a MassDEP maximum withdrawal rate of 457 gpm, however present maximum pump rate is set at 350 gpm with a maximum rate of approximately 420 gpm, depending on groundwater level.

<u>Industrial Park Road Well</u> – The Industrial Park well is a gravel packed well installed in 2007. The water supply carries a MassDEP maximum withdrawal rate of 330 gpm, however present maximum available rate is approximately 215 gpm due to well water level restriction.

Regulatory Requirements

The Commonwealth of Massachusetts started the Sustainable Water Management Initiative in 2010 to guide MA DEP's permitting of water withdrawals under the Water Management Act (WMA) with the goal of providing water for communities while also supporting ecological health and promoting economic development. WMA regulates the sub-basins and requires the Town to minimize impacts to river and stream base flow by limiting water withdrawals to a "safe yield," the maximum dependable water withdrawal calculated over a series of years. WMA makes conservation and water loss reduction important priorities (Conley & Serrill).

Since 2003, Medway has been designated as "urbanized" and is regulated by the EPA's NPDES (National Pollution Discharge Elimination System) permits program as an MS4 (Municipal Separate Storm Sewer System). An MS4 is a system composed of stormwater drains, pipes, culverts, swales and ditches designed to collect and transfer stormwater from developed areas to the nearest water bodies. An MS4 is not a combined sewer system.

Medway has a Stormwater Management Plan to achieve regulatory compliance and manage stormwater safely and safeguard ecological health by reducing pollution to waters. The Town reports its stormwater activities in a yearly report. The 2016-2017 report describes revisions and improvements that are being incorporated into the stormwater collection system along Route 109 and Choate Pond as part of the Route 109 renovations project. It also lists work completed under the categories of public education, outreach, and participation; illicit discharge detection and elimination; construction site stormwater runoff control; post-construction stormwater management in new development/redevelopment; and pollution prevention in municipal operations. The Town is currently strategizing how to meet the requirements of the new MS4 permit which go into effect July 1, 2018 (NPDES Phase II Small MS4 General Permit Annual Report).

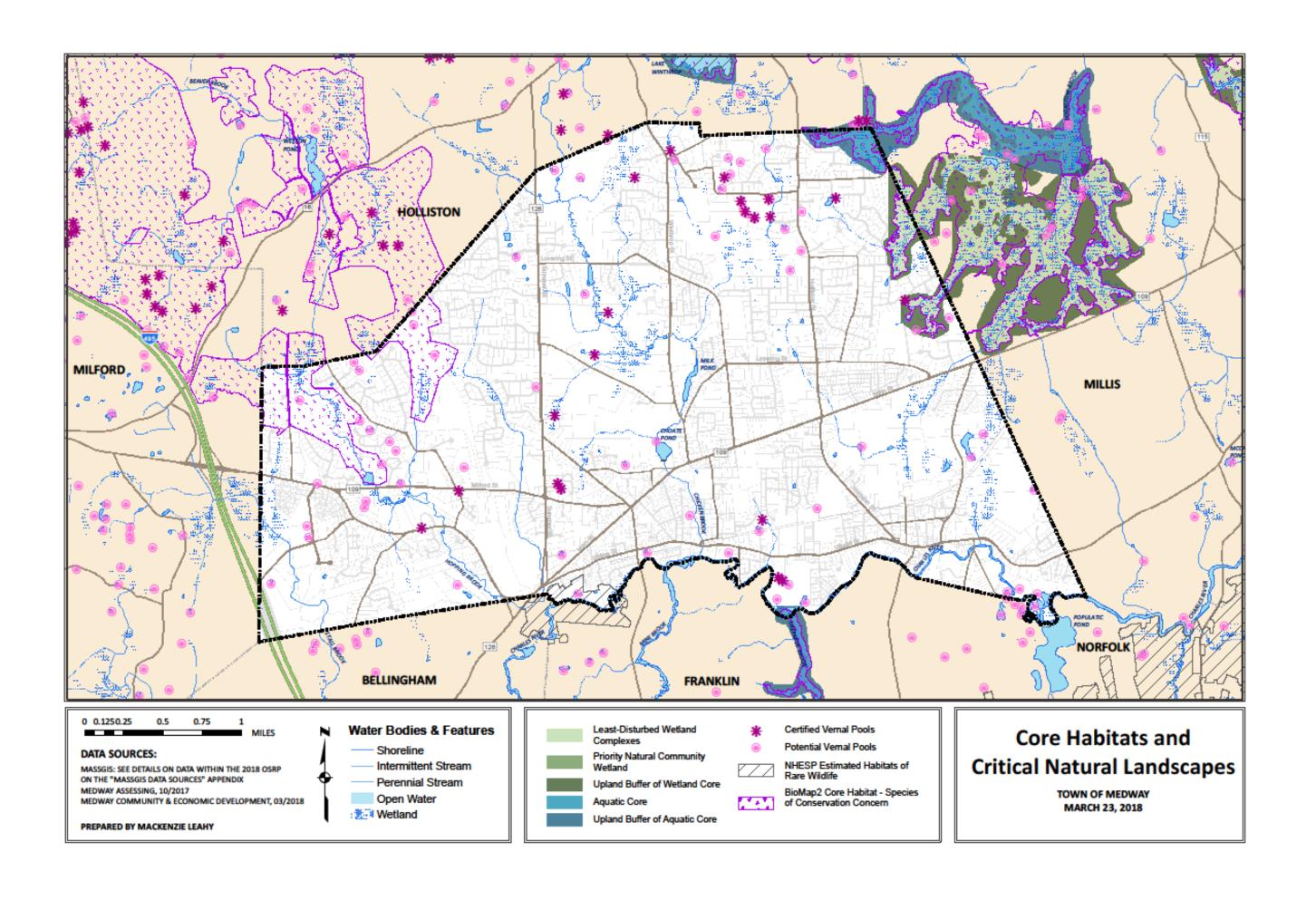
Water Supply and Demand

Medway's water system has limitations when it comes to meeting the community's water needs. The Town has enough permitted capacity to meet demand, but its current four wells cannot safely pump enough water to meet future projected water demands (Water Supply & Demand Assessment in Relation to Exelon Power 'West Medway II' Project for Town of Medway, MA). Medway is strategizing about how to best improve the water system to increase the quantity of water the system can pull and properly account for water demand.

Water testing in 2016 showed that water quality at all wells was in compliance with State standards with the exception of slightly elevated manganese levels at the Village Street well. During 2016 the Medway Water Division conducted a Level 1 Assessment and was required to complete one Corrective Action (Annual Water Quality Report). Medway is working to return all wells to permitted capacity and substantially lower losses in the distribution system to address this issue, especially as Medway looks to the future and possible constraints on development a limited water supply would pose.

Water Conservation and Protection

Because the drinking water aquifers are shallow and connected, development and other activities, such as agriculture, can affect drinking water quality and quantity downstream. The Town wells can benefit from good management practices including identifying and protecting land that directly effects aquifers and groundwater (Conley & Serrill).



The Town encourages water conservation through education and outreach efforts. To sustain local water resources a mandatory water ban is in effect from May 1 to September 30. No outside watering was allowed from 9 am – 5 pm, in-ground sprinkler use is forbidden, and restrictions for watering via a hose are in effect (Water Ban Notice). This restriction has been in place for the past fifteen years as part of the town's Water Withdrawal Permit. Medway has begun discussions on how to further protect drinking water as part of the Integrated Water Resource Management Plan, with the help of a consultant (Kleinfelder).

Flood Hazard Areas

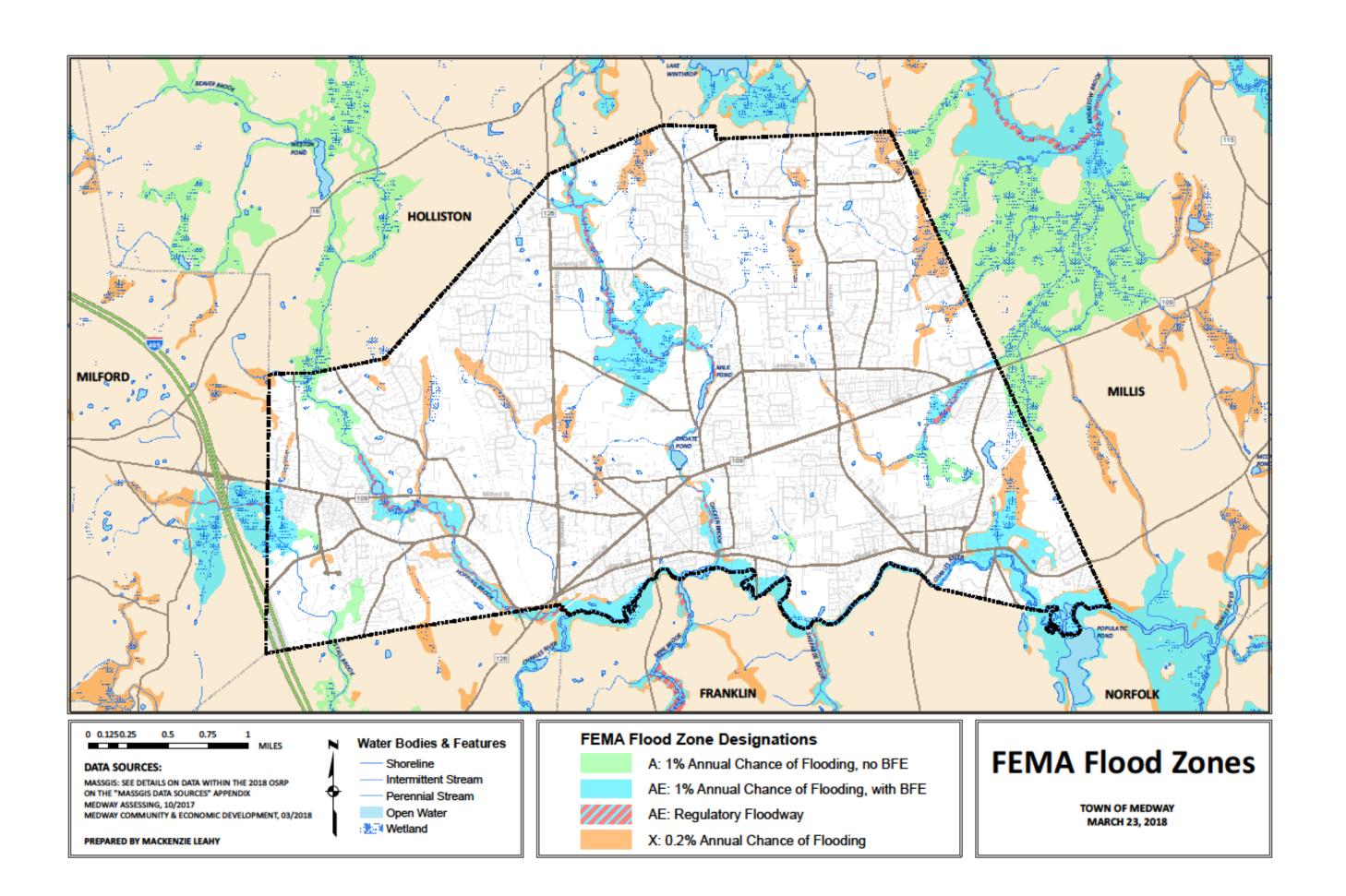
Many of the water resources in Medway are within flood hazard areas. Three major types of flood hazard zones exist in Medway: A, AE and X500. Zone A is an area inundated by 100-year flooding for which no Base Flood Elevations have been determined. There are three small areas of Zone A in Medway as follows: (1) a small area between Village Street and Forest Road, along the abandoned railroad bed; (2) the northern part of Hopping Brook; and the area along the small brook near the intersection of Route 109 and Holliston Street.

Zone AE is an area inundated by 100-year flooding for which Base Flood Elevations have been determined. This zone closely follows most of Hopping Brook, Chicken Brook, the Charles River, and the small brook near the intersection of Route 109 and Holliston Street.

Zone X500 is an area subject to inundation by a 500-year storm; an area inundated by 100-year flooding with average depths of less than one foot or with drainage areas less than one square mile; or an area protected by levees from 100-year flooding. It is the most common zone in Medway. X500 zones abut the AE zones along Hopping Brook, Chicken Brook, the Charles River and the small brook near the Route 109 and Holliston Street intersection. Additionally, there are several patches of wetlands in town that are within Zone X500, including a patch west of Clark Street, two patches near Stall Brook at the Milford and Bellingham borders, the area around Summer Hill Road, the wetlands at the end of the brook near the Highland and Park Streets intersection, four patches of wetlands in the Black Swamp, a patch of wetlands on Route 126 near Pheasant Run Road and two patches of wetlands along the brook that offshoots eastwardly from Milk Pond. There is another X500 zone lining the brook that offshoots northward from Hopping Brook around Route 109. Finally, an X500 zone surrounds the AE zone around both Park Pond and Milk Pond.

See FEMA Flood Zones map on the following page.

Medway has recently updated the 2011 Local Multi-Hazard Mitigation Plan, which expired in April 2016. The Town has received a FEMA Pre-disaster Mitigation Grant to update the plan with assistance from the Metropolitan Area Planning Council. Flooding is the most relevant and serious natural hazard identified by local officials. There are eight critical infrastructure sites within FEMA floodplains and five within locally identified flood areas, including: Walker Street Bridge, Milford Street Culvert, Main Street Culvert, and the Town's Populatic Well. With the assistance of a Hazard Mitigation Grant, the Town has been working on drainage improvements to the Brentwood Subdivision (built in the early 1960's), an area identified in the recently expired plan which is prone to flooding.



Locally Identified Areas of Flooding

The following areas were identified in the Hazard Mitigation Plan as areas with localized flooding problems:

Brentwood

Brentwood, a subdivision built in the early 1960's, on the north side of Main Street east of Holliston Street, suffers from inadequate drainage systems. Water runoff from a hill located west of the neighborhood is the primary cause of the flooding. In 2016, using funds available from MEMA, the Town installed a major drainage upgrade in the area to address the highest risk areas. There have been no incidents since this work was completed.

Hopping Brook

Each spring Hopping Brook exceeds its banks. Infrequently, the brook floods Route 109, a major roadway and escape route for Medway residents. Every spring and in larger rainstorms, 4-5 five houses south of the brook sustain flood damages. Expanding the culvert under Route 109 could potentially mitigate this problem.

Chicken Brook at Village Street

During large rainstorms and spring events, Chicken Brook exceeds its banks floods Village Street. The Town also indicated that flooding occurs south of Chicken Brook in Bellingham causing the upstream portion in Medway to flood. While this is a frequent problem, there is little damage caused by the flooding. The Town has identified a hydro analytics study of the area and/or building a retaining wall on the northern banks of Chicken Brook as potential mitigation measures.

Main Street by the Mill

During large storms water levels at Chicken Brook raise and threaten to flood the old Medway Mill on the south side of Main Street across from Choate Park. The Brook flows directly under the mill, a site for potential development.

Charles River at Village Street

The Charles River rises every spring and causes or threatens flooding throughout its duration. The Charles River flows through the southern portion of Medway, which has low topography. During large storms, Village Street, a major roadway through Medway, sustains flooding resulting in partial to complete road closure. The town has installed improved drainage in the highest risk areas and continues to work to mitigate flooding at this location.

Choate Dam

The Choate Dam was renovated in 2008. If the dam were to fail, extensive to catastrophic damages southward/downstream would occur. The renovations included improvements to sluiceway operation allowing for emergency lowering of the water levels. This provides additional storm surge storage for very large storm events. With renovation at the park underway, stormwater management will be significantly upgraded, improving the quality of runoff to Chicken Brook.

Sanford Dam

The Town is unsure of the condition of the Sanford Dam located cross the Charles River west of Sanford Street. It is privately owned and is a minor concern for the Town as it does not provide significant storage. However, if the dam were to fail, it would cause some immediate

eastward/downstream damages through flooding but eventually the stream would regulate to its original flow patterns.

Water-Based Recreation and Access

A town-wide survey of 600 residents was administered as a part of the Town's Parks, Open Space and Athletic Fields Master Plan initiative led by the Evaluation of Parks, Fields and Recreations Committee appointed by the Board of Selectmen in 2013. The need for more water-based recreation opportunities and increased access to the town's water bodies rose toward the top as the third greatest priority. Due to the water quality challenges of Choate Pond, its use has shifted from active recreation such as swimming and fishing to more passive uses such as relaxing, bird-watching and scenic viewing. Emphasis will be focused on the Charles River as the primary area for increased water-based recreation in town (Parks, Open Space and Athletic Field Master Plan Report 2013). Since the master planning process described above, the Town has acted to increase access by improving infrastructure at identified recreation sites along the Charles River including Breshnahan's Landing, Charles River Amphitheatre, and the Salmon Retirement Community. Access to the Charles River is also available at Ohnemus Picnic Area and Charles View Lane off of Village Street.

Breshnahan's Landing

There is canoe and kayak access to Bresnahan's Landing off of Village Street and at Norfolk Launch at River Road in Norfolk. The 3.3-mile distance between launches brings paddlers along the north edge of Populatic Pond where paddlers can find the pond outflow into the Charles River and resume the journey along the Charles to a takeout at River Road in Norfolk. Obstacles such as downed branches, beaver dams, and high or low flow can impede a paddler's way. Experienced paddlers who can handle fast water could paddle as far as South Natick before having to portage over the next dam on the river (Bresnahan's Landing Paddling Map 2015).

Amphitheatre

The Charles River Amphitheatre, a Town-owned open space, is the best area to view the Charles River in Medway. It is conveniently located off of Village Street near the center of Medway and includes walking trails and a canoe and kayak launch. Directional signage on Village Street would assist people in finding this hidden treasure. Paddlers can head upstream, potentially as far as the West Medway dam. There is no beach for swimming, but the brochure guide to Medway's open spaces features a photo of a rock known as Swimming Rock in the river at the Charles River Amphitheatre (Guide to Medway's Open Spaces 2015). The Town is taking steps to improve the facilities at the Amphitheatre. The Medway Community Preservation Committee allocated funds to install a new fence at the site in May 2017 (Committee Meeting Minutes, May 1, 2017).

Salmon Retirement Community – Conservation Restriction (Charles River)

The Salmon Retirement Community is a 57-acre site that will include 225 residential dwelling units (independent living cottages, independent living apartments, assisted living apartments, and memory care apartments). Thirty-seven acres will be protected open space. The developer has granted a Conservation Restriction to the Town of Medway through its Conservation Commission. The Conservation Restriction allows for the construction of a natural trail system and recreational boat launch in the Charles River available for public access and use.

297 Village Street, Charles River

This private property is the recent recipient of a Chapter 91 Waterways License for a bridge across the Charles River. As required by the Commonwealth, public access for fishing, fowl, and navigation along the Charles River at this location must be allowed as a condition of this permit.

Charles River

The Charles River Meadowlands Initiative is an effort by citizens and officials of the Towns of Bellingham, Franklin, and Medway to enhance the conservation and recreation opportunities of the US Army Corps of Engineer (USACE) lands of the Charles River Natural Valley Storage Area. In 1970 the USACE preserved hundreds of wetlands for flood control purposes and since then has made sure that these flood plain areas are not altered in any way that would diminish their capacity to contain, slow, and absorb floodwaters. Citizens and the local governments of the three towns are in support of this initiative which seeks to improve recreation access to the USACE lands and other nearby lands owned by the towns. In doing so, they have joined together across town borders to promote passive recreation and the positive economic impacts that can accompany it. Citizens and Town governments are the drivers in this initiative. For different reasons, USACE, Mass Fish and Game, and DCR are all supportive, but unwilling to take a leadership role (The Charles River Meadowlands Plan for Bellingham, Franklin, and Medway).

Medway has several public parcels that are contiguous with the Charles River in Franklin and fifty-two acres of US Army Corp of Engineer's lands. Medway could reap social, cultural, economic, and public health benefits from the increased recreation and community activities proposed by the Meadowlands Initiative. Increased connectivity and wildlife habitat, due to additional anticipated land conservation efforts, would benefit Medway's biodiversity and the ecosystem services of its lands.

D. Natural Communities (Associated Vegetation and Wildlife)

Medway is located within the Southern New England Coastal Plains Ecoregion – an area with coastal plains and a few low hills.

Vegetation

Forest

Medway's vegetation is dominated by upland forests in areas previously cleared for pastures and farmland. Central oak-hickory hardwood forests mixed with white pine make up most of the forest cover. The town also contains sugar maple-birch-beech-ash transitional hardwood forests and areas with elm-ash-red maple and white pines (BioMap2).

Highbush blueberries, sweet pepperbush, witch hazel, and spicebush populate the understory communities in moist upland forests while lowbush blueberries, sheep laurel and huckleberry dominate in the drier forests. Spotted wintergreen, princess pine and partridgeberry are also common, as well as lady's slippers, Canada mayflower, trillium and false Solomon's seal.

Medway's Northern swamp forests are a mix of the hardwoods of maple, oak, ash and evergreens, such as white pine in sandy soil and white cedar in clay rich soils. These forests are also home to the highbush blueberries and swamp azaleas also found in upland forests.

Forest land in Medway declined by more than twenty six percent between 1971 and 1999 due to land development and forest succession. More than 1,000 acres were converted to other uses.

Meadow

Meadow, once a common type of ecosystem of Medway's coastal plains, makes up a smaller proportion of the landscape. Broad meadows historically blanketed the lands along the Charles River. Meadow habitat declined significantly between 1971 and 1999, dropping from 246 acres to just 30 acres. The Chicken Brook corridor has the highest concentration of meadows and pastureland in town (Conley & Serrill). Wildflowers including Queen Anne's lace, goldenrod, wild asters, milkweed and joe pye weed are prevalent in the drier meadow areas, while bulrush, jewelweed and red cardinal flowers are more common in wetland meadows.

Cultural Grassland

Cultural grasslands are created by humans and are typically maintained by annual mowing. There are three main locations where these types of grasslands are present: Amphitheatre, Millstone Conservation Restriction, and the Adams Street Conservation Area. These areas have historically been open and are typically not suitable for cultivation because of their dry, rocky, sandy. and low-nutrient soils. A plant inventory of the Adams Street Conservation Area was conducted in 2015 by Open Space Committee member Jim Wickis, and the following herbaceous plants were identified there: burdock, *Arctium lappa*; common milkweed, *Asclepias syriaca*; cow vetch, *Vicia cracca*; curly dock, *Rumex crispus*; daisy fleabane, *Erigeron annuus*; Deptford pink, *Dianthus armeria*; English plantain *Plantago lanceolata*, field pennycress *Thlaspi arvense*, field pepperweed *Lepidium campestre*; lambsquarters, *Chenopodium album*; lesser stitchwort, *Stellaria graminea*; mugwort, *Artemesia vulgaris*; oxeye daisy, *Leucanthemum vulgare*; wild madder, *Galium mollugo*; yarrow, *Achillea millefolium*; yellow wood sorrel, *Oxalis stricta*; orchard grass, *Dactylis glomerata*; and, red fescue, *Festuca rubra*.

Public Shade Trees

Public shade trees are under the care and oversight of Medway's Tree Warden, who works in the Department of Public Works. Many of Medway's shade trees are being threatened by construction and new development. The Tree Warden determines whether trees in public areas should be removed, planted, or remain as public shade trees, and enforces the rules and regulations associated with trees along scenic roads. Twenty-five roadways in Medway currently have local scenic road status. Any cutting or removal of trees in the right-of-way of a scenic road requires an application and hearing with the Planning and Economic Development Board and the Tree warden for a Scenic Road Work Permit.

Exemplary Habitats

American Chestnut Study Area at Idylbrook Park

In 2004, Medway resident and volunteer Gary Jacobs planted over 600 American chestnut trees in association with the local chapter of the American Chestnut Foundation. The Foundation has been working since 1983 to develop a chestnut resistant to the chestnut blight. If discovered, the American chestnut could continue once again to provide nuts for animals and humans, and its wood could be used for building.

Black Walnut Grove at the Salmon Retirement Community

There is a grove of black walnut trees that are in excellent condition, which will be preserved as part of the Salmon Retirement Community Conservation Restriction, as required under the ARCPUD Permit issued by the Planning and Economic Development Board.

BioMap2

In 2012, the Massachusetts Natural Heritage and Endangered Species Program (NHESP), in partnership with The Nature Conservancy (TNC), produced *BioMap2: Conserving the Biodiversity of Massachusetts in a Changing World*. This study combined information about rare species, natural community data, and spatial data identifying wildlife species and habitats. BioMap2 also integrates TNC's assessment of large, well-connected, and intact ecosystems and landscapes across the Commonwealth, incorporating concepts of ecosystem resilience to address anticipated climate change impacts.

BioMap2 identifies two ecological components, Core Habitats and Critical Natural Landscapes (CNL), used to determine the areas of Massachusetts most in need of protection in order to preserve and promote biodiversity. Core Habitats are the most viable habitat for rare plants and animals or exemplary natural communities. CNL areas serve as supporting buffers around Core Habitats. They can be large undeveloped patches of vegetation, large "road less" areas, and undeveloped watersheds. Protection of CNLs provides habitat for wide-ranging native species, supports intact ecological processes, maintains connectivity among habitat, and enhances ecological resilience to natural and anthropogenic disturbances (BioMap2).

The BioMap 2 for Medway is shown in Figure 4-1 below.

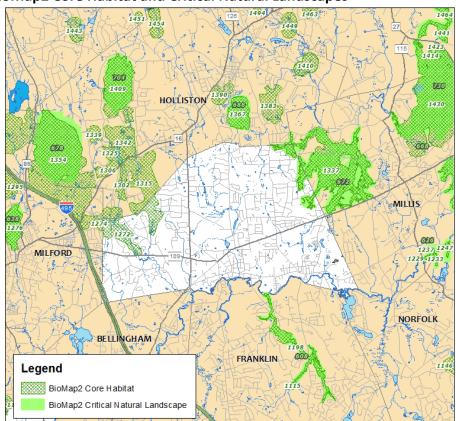


Figure 4-1: BioMap2 Core Habitat and Critical Natural Landscapes

One Wetland Core Habitat, two Aquatic Core Habitats, three Species of Concern Core Habitats, two Aquatic Core Buffer Critical Natural Landscape areas, and one Wetland Core Buffer Critical Natural Landscape area are identified within Medway. The three Species of Concern Core Habitats are located in the northwest area of Hopping Brook and extend into Holliston. These areas provide large un-fragmented open spaces along Hopping Brook's riparian corridors and are habitat for the rare spotted turtle (*Clemmys guttata*) and four-toed salamander (*Hemidactylium scutatum*). In the northeast, Aquatic and Wetland Core Buffer CNLs overlap the Aquatic and Wetland Core Habitats in the Black Swamp. This habitat supports the Spatterdock darner (*Rhionaescha mutate*), a rare dragonfly species (BioMap2). The second Aquatic Core Habitat and Species of Concern Core Habitat are located predominantly in the Town of Franklin but extend into Medway where Sherman Brook meets the Charles River. This area also provides habitat for the four-toed salamander (BioMap2).

Based on FY17 data from the Medway Assessor's office, 538 acres of open space are protected in perpetuity, 7.2% of Medway's total land area. BioMap2 Core Habitat areas make up 352 acres of which 51 acres, or 14.5 %, is presently protected. CNL areas make up 163 acres of which fifteen acres, or nine percent, is protected (BioMap2). As these areas are all at the periphery of town, their conservation would also be beneficial to adjacent communities. Therefore, conservation efforts should be collaborative with neighboring towns.

CAPS

The University of Massachusetts Landscape Ecology Laboratory's Conservation and Assessment and Prioritization System (CAPS) is "an ecosystem-based (coarse-filter) approach for assessing the ecological integrity of lands and waters and subsequently identifying and prioritizing land for habitat and biodiversity conservation." CAPS defines ecological integrity as "the ability of an area to support biodiversity and the ecosystem processes necessary to sustain biodiversity over the long term." This system provides a second way to identify areas for conservation. The Index of Ecological Integrity ranking system of CAPS includes metrics of connectivity, traffic volume, distance from roads, and unimpeded stream flow. This contrasts with BioMap2 which focuses on rare species habitat. CAPS mapping identifies the top fifty percent of lands with the highest ecological integrity (Conley & Serrill).

Figure 4-2 on the next page illustrates the CAPS integrated statewide, watershed and ecoregion assessment of index of ecological integrity for Medway and its immediate environs. The darker the color, the higher the integrity value. In addition to the areas identified by BioMap2, CAPS identified areas within the Chicken Brook corridor as being important for biodiversity and ecosystem health. Kirby Swamp and an area within the Adams Conservation Area utility corridor were identified as having high value for wetland and aquatic habitat (Conley & Serrill).

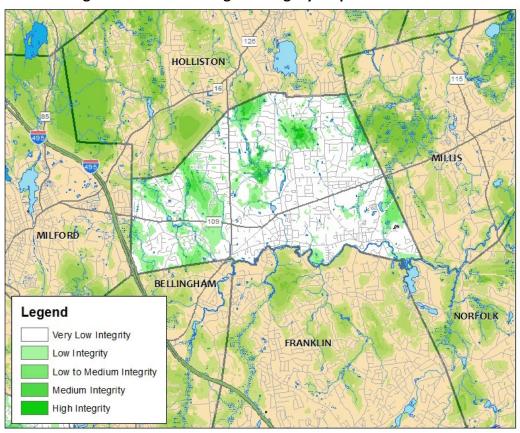


Figure 4-2: CAPS Integrated Index of Ecological Integrity Map

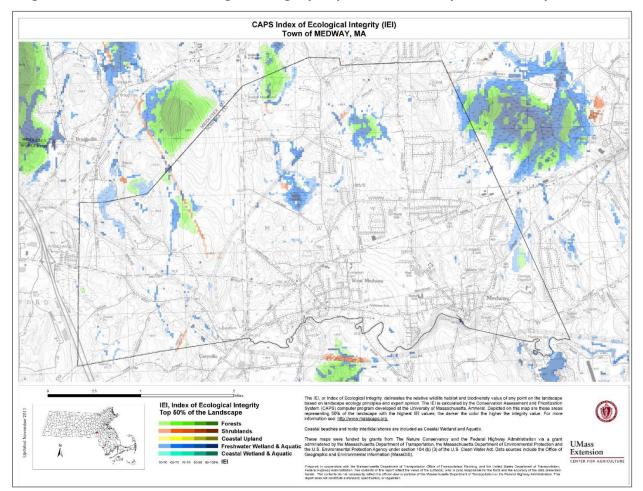


Figure 4-3: CAPS Index of Ecological Integrity, Top 50% of Landscapes in Medway

Rare, Threatened and Endangered Plants

According to Mass Wildlife's Natural Heritage Endangered Species Program (NHESP), Medway currently has no rare or endangered plant species (Harper). Previously, two vascular plant species, the Rigid flax and the Saline sedge were listed as endangered. However, these species are no longer on the list. There are also no Priority Natural Communities listed by NHESP, but this could be due to lack of survey effort.

Threats to Natural Communities

In addition to BioMap2 Core Habitats, there are areas of Priority Natural Communities distinction just outside the Town's borders in Holliston. These habitats, home to rare and endangered species, are connected and supported by habitats within Medway. Since wildlife is dependent on natural habitats for food, water, shelter and reproduction and these resources have been fragmented due to the encroaching development, it can be expected that biodiversity will suffer unless these natural habitats are protected.

The Town owns much of the land along Chicken Brook and Kirby Swamp (north of Adams and west of Winthrop Streets). While these areas do not support state-listed rare species, NHESP recognizes these areas as a significant complex of uplands and wetlands. Town-owned and non-

Town-owned lands not yet protected as open space are vulnerable to development. Similarly, NHESP encourages the conservation of another tract of undeveloped wetlands and uplands between Winthrop and Holliston Streets, north of Lovering Street. Conserving these areas would help protect the more common species that contribute to the town's biodiversity and the health of its ecosystems (Harper). In addition, land conservation that increases connectivity of the Core Habitats and Critical Natural Landscapes with other open space parcels can increase biodiversity and ecosystem services in town.

E. Fisheries and Wildlife

The primary wildlife corridors in Medway are generally along the major waterways, including the Charles River, Chicken Brook and Hopping Brook. Both Chicken Brook and Hopping Brook flow into the Charles. Hopping Brook provides a link to Cedar Swamp in Holliston and Chicken Brook flows into the Charles nearly opposite its confluence with Mine Brook flowing in from Franklin, thus forming a link to Franklin.

In addition, electrical transmission rights-of-way also serve as wildlife corridors. They provide links between Hopping Brook and Chicken Brook and also link those corridors with Lake Winthrop in Holliston and Dopping Brook in Holliston and Sherborn.

Mammals

Currently, there is a diversity of mammals in Medway including white tailed deer, gray squirrel, muskrat, beaver, coyote, red fox and, raccoon. No detailed survey of mammals has been conducted to date; however, these species are commonly observed throughout Medway.

Birds

There are no detailed inventories or bird counts for Medway, however, the following observations from local residents and Town staff have been reported to the Conservation Commission. Great blue herons (Ardea Herodias) and other marsh species have been observed at freshwater marshes and forested wetlands, including along Chicken Brook. Red-tail hawks have been observed along the utility power lines, hunting mice and other field dwelling species from perches in the tree line bordering the cleared right-of-way ROW). Utility ROWs can be great wildlife habitat for meadow dependent species. The utility companies utilize a combination of herbicides and manual cutting for managing vegetation growth within the ROW. Choate Pond is home to some mute swans (Cygnus olor) which were introduced from Europe and are becoming invasive in the vicinity. Recently, at Choate Pond hooded merganser ducks (Lophodytes cucullatus) have been seen. These particular birds have been in decline due to the loss of wetlands to development nationally. Efforts to restore habitat including the addition of nesting boxes and wetland restoration have led to slowly increasing populations. The Conservation Commission in cooperation with Eagle Scouts have been building blue bird boxes and installing them across town. Medway has not conducted a Blue Bird Study, but it is something that the Commission would like to undertake in the future.

Reptiles/Amphibians

Medway is home to several species of reptiles and amphibians, wood frog, spring peepers, spotted salamander, green and gray tree frogs, bull frog, snapping turtles, and painted turtles, just to name a few. Along Winthrop Street in close proximity to Chicken Brook (within the Chicken

Brook Wildlife Corridor) there is a sign constructed by residents that is put up every spring to warn drivers of reptile and amphibian crossings.

One species, wood turtle, is listed as of "special concern" in Medway. A species of "special concern" is a native species documented by biological research to have suffered a decline that could threaten the species if allowed to continue unchecked. Or it refers to a species which occurs in such small numbers or with such restricted distribution or specialized habitat requirements that it could easily become threatened within Massachusetts.

Table 4-1: Reptile of Special Concern in Medway

| Scientific Name | Common Name | MESA* Status |
|--------------------|-------------|-----------------|
| Glyptemys insulpta | Wood turtle | Special Concern |

Source: Harper, Lynn. MassWildlife Letter. August 21, 2017.

As discussed previously, BioMap2 Core Habitat areas in Medway provide habitat for the spotted turtle (*Clemmys guttata*) and four-toed salamander (*Hemidactylium scutatum*). Reptile and amphibian species such as these rely on both aquatic and nearby terrestrial habitats during their life cycles.

Fish

The lakes, ponds and streams in Medway contain many fish species. There are local perennial streams that are stocked annually with trout at four locations including: south of West Street in Hopping Brook, two locations along the Charles River (west of Kadin Lane and along Walker Street), and south of Milford Street in Stall Brook. Fish species that have been observed in Medway include sunfish (*Enneacanthus obesus*), brook trout (*Salvelinus fontinalis*), chain pickerel (*Esox nige*), and yellow perch (*Perca flavescens*). Medway does not have any Coldwater Fisheries Resource streams.

Insects

Although there is no detailed inventory of insects in Medway, a number of invasive insect species are common to the region including the gypsy moth and hemlock wooly adelgid.

F. Scenic Resources and Unique Environments

Scenic Roads

The Town of Medway has designated twenty-five roads as *scenic roads*, roads that have been maintained for over fifty years and have homes that reflect that heritage with trees and/or stone walls intact. Stone walls and trees within the right of way on designated scenic roads cannot be removed or altered without a hearing before the Planning and Economic Development Board and receipt of a scenic road work permit. See Table 4-2 for a list of designated Medway scenic roads.

Table 4-2: Scenic Roads in Medway

| Street | From | То |
|---------------------------------|------------------|------------------|
| Adams Street | Winthrop Street | Summer Street |
| Brigham Lane (now Country Lane) | Main Street | Village Street |
| Causeway Street | Holliston Street | Millis Town Line |

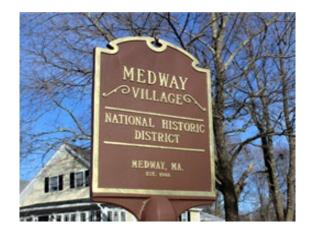
^{*}MESA – Massachusetts Endangered Species Act

| Charles River Road | Village Street | Charles River |
|--------------------|------------------|---------------------|
| Ellis Street | Coffee Street | Holliston Street |
| Street | From | То |
| Elm Street | Main Street | Evergreen Street |
| Evergreen Street | Main Street | Elm Street |
| Farm Street | Village Street | Millis Town Line |
| Fisher Street | West Street | Holliston Town Line |
| Franklin Street | Main Street | Village Street |
| Granite Street | West Street | End |
| Guernsey Street | Cottage Street | Lincoln Street |
| High Street | Main Street | Village Street |
| Highland Street | Main Street | Summer Street |
| Hill Street | Winthrop Street | Holliston Town Line |
| Lincoln Street | Main Street | Village Street |
| Lovering Street | Winthrop Street | Summer Street |
| Oakland Street | Main Street | Village Street |
| Partridge Street | Ward's Lane | Winthrop Street |
| Pearl Street | Walker Street | End |
| Populatic Street | Village Street | Franklin Town Line |
| Village Street | In its entirety | |
| Walker Street | Populatic Street | Franklin Town Line |
| Wellington Street | Cottage Street | High Street |
| Winthrop Street | Main Street | Holliston Town Line |

Source: Town of Medway Scenic Roads Rules and Regulations, July 2002. * These roads, or in most cases, sections of roads, were designated as scenic roads at the Annual Town Meetings held on December 20, 1975 and May 14, 2001.

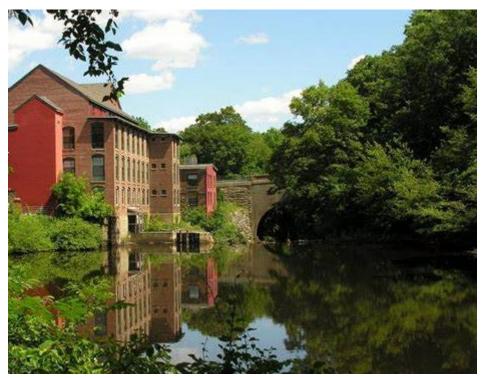
Historic Resources

Along many of these roads, historic homes and other buildings can be found, adding to the scenic and cultural value of these neighborhoods. In 1988, the 40-acre Rabbit Hill area of West Medway was officially registered as a National Historic District because of its outstanding collection of historic homes and structures. Most recently, Medway Village was also added to the National Register of Historic Places and the Medway Historical Commission has begun work to nominate the Evergreen Cemetery to the National Register.



Charles River

The Charles River, as it winds through Medway as its primary southern boundary, provides beautiful scenic vistas for all to enjoy.



Sanford Mill and Bridge on the Charles River Photo by Tim Rice

See the Scenic and Unique Features map on the next page.

G. Environmental Challenges

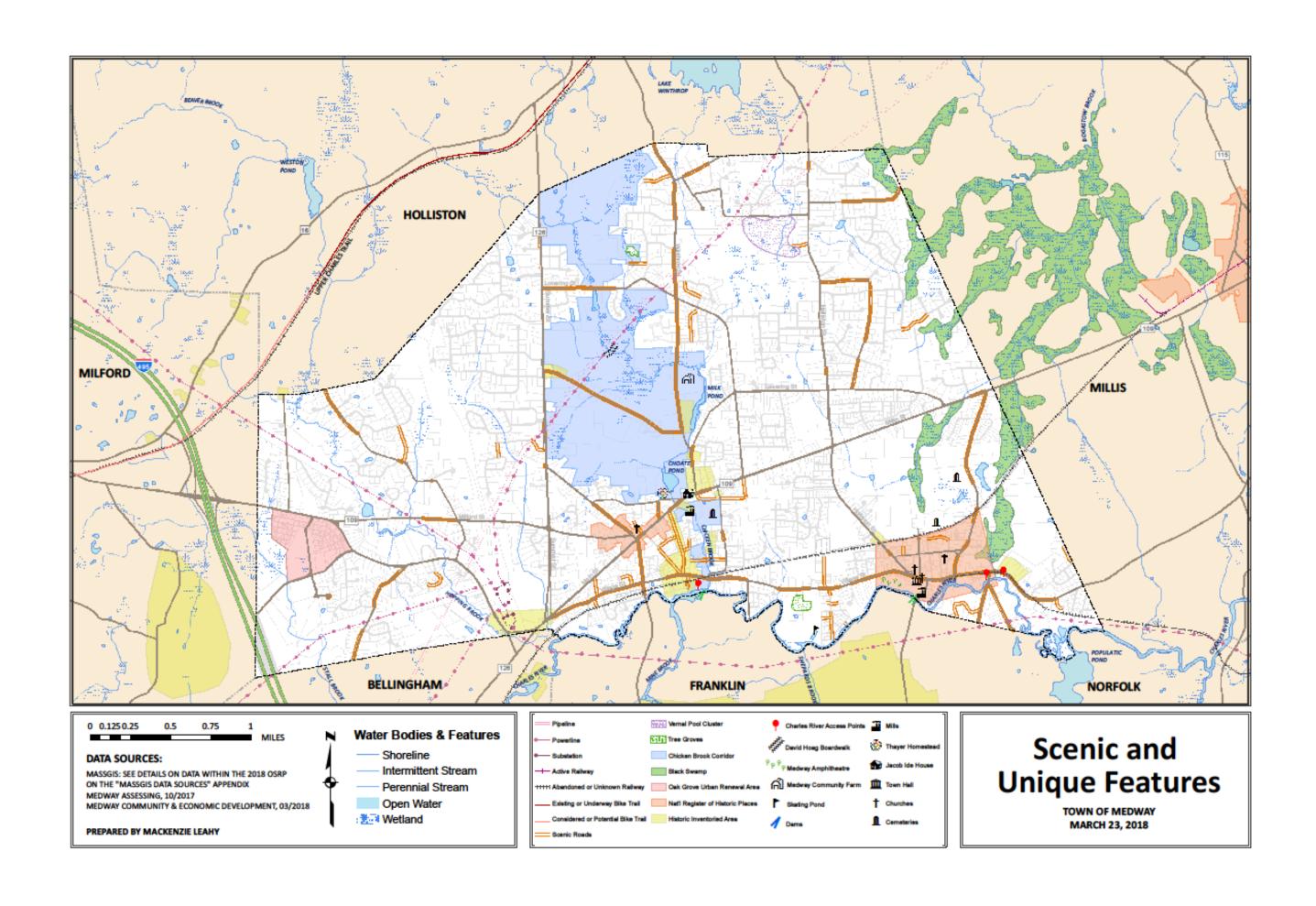
Drinking Water Supply

One serious issue is the adequacy of the domestic water supply. Medway has made significant efforts to solve this problem, but conservation of water supplies and protection of water resources remain a concern. The anticipated increase in development makes this an imperative issue for the future sustainability of the community. The quality of drinking water sources is not a problem at present but conserving land and managing possible water pollutants is important to safeguard resources in the future. Pollution from land use can affect drinking water sources because chemicals can migrate through porous sand and gravel into groundwater. For this reason, it is important to identify and protect undeveloped land within aquifer recharge areas.

Surface Water Quality, Streamflow, and Temperature

Volunteers from the Charles River Watershed Association take water samples monthly at a water quality monitoring site at the Shaw Street bridge over the Charles River. The average 2016 *E. coli* level in the water at this site was 129 colony forming units per 100 milliliters. This is just above the swimming standard of 126 colony forming units per 100 milliliters. A look at the *E. coli* concentration for each of the samples taken monthly in 2016 indicates that six out of the twelve days had unsafe *E. coli* levels for swimming. The *E. coli* standard for boating is 630 colony forming units per 100 milliliters, therefore the Charles River along the border with Medway is safe for boating (Charles River Monthly Monitoring 2016 Year-end Report).

Thirteen percent of Medway's land is covered by impermeable surfaces. It is generally accepted that when the impervious area in a watershed reaches ten percent, stream ecosystems begin to



show evidence of degradation, and impervious coverage of more than thirty percent is associated with severe, practically irreversible degradation. Non-point source pollution from Medway contributes to water quality degradation in the Charles River. Temperatures of the Charles River have been steadily increasing and have been above healthy levels (Charles River Monthly Monitoring 2016 Year-end Report). Waters warmed when passing over impermeable surfaces can contribute to this trend.

As discussed previously, the suburban and rural upper Charles River communities, of which Medway is one, are experiencing one of the fastest development rates in Massachusetts. The demand for water has the potential to cause lower flows of the Charles River. Providing drinking water to citizens and making sure that enough water from the tributaries in Medway reach the Charles River to maintain healthy river flow heights and rate is a challenge (Charles River Issues).

A regional sewer treatment plant is located in Medway. It serves the Towns of Medway, Franklin, Millis and Bellingham. It currently discharges its treated effluent into the Charles River, resulting in an out of basin transfer of water. A major challenge is to find ways to keep that water in the basin so that there is not a net loss of water. Groundwater pumped from the ground and then discharged out of the groundwater recharge area results in a net loss of water within the basin. Given the existing water shortages due to well capacity issues, finding ways to recharge wastewater locally such as through use as irrigation, would be beneficial. Additionally, Medway is reaching its allotted capacity at the wastewater treatment plant which has implications for future development. Once capacity is reached, future developments would not be able to tie into the sewer system, and would need private septic systems, which would have implications for groundwater quality. The Town enacted a moratorium on sewer extensions in 2016.

Flooding

Flooding has been an issue in several areas of town including Walker Street Bridge, Milford Street Culvert, Main Street Culvert, and the Town's Populatic Well. Increased amounts of impervious surface from development can result in the production of more runoff than the storm drainage systems were designed for. Medway adopted a new Stormwater Management and Land Disturbance Bylaw in 2017 to provide standards for stormwater management and treatment to reduce the impact of new development on water resources.

Generally, there has been a substantial rise in beaver activity over the past five years, according to the Conservation Commission. Both the Town and the State have moved to a policy of not disturbing beaver dams and habitat unless public health is threatened, i.e. roads or drinking water wells will be flooded. Ponding created by beaver dams is creating new flood areas and a shift in flooding patterns, the future impact of which is yet to be determined.

Loss of Open Space to Development

Medway lost more than twenty six percent of its forest land between 1971 and 1999. However, it now has an Open Space Residential Development bylaw requiring that fifty percent of a developed parcel remain as open space. This and the Adult Retirement Community Planned Unit Development bylaw, which also requires open space to be provided, are two tools the community has adopted to mitigate the loss of open space from development.

Erosion and Sedimentation

Erosion and sedimentation are problems resulting primarily from new construction or significant redevelopment. The Wetlands Protection Bylaw Article XXI, the Planning and Economic Development Board's Rules and Regulations, and a Stormwater Management Bylaw Article XXVI seek to address this problem. Recently, in 2017, the Town completed a total overhaul of the Stormwater Management Bylaw Article XXVI making the regulations more stringent to address past issues and meet NPDES Stormwater Phase 2 permit requirements.

Hazardous Waste and Brownfield Areas

Under the Massachusetts General Laws, Chapter 21E sites are contaminated by oil or other hazardous material and are subject to special restrictions for redevelopment. Such sites are classified by tiers based on their level of contamination and their owner's compliance with regulations. The Massachusetts Department of Environmental Protection (MassDEP) has a searchable database that lists forty-six reportable spills of oil and/or hazardous materials in Medway from 1987 through December 2017. Most of those sites, including some former gas station sites, are classified in a status that poses no significant risk, meaning the release has been properly cleaned up (MassDEP Searchable Sites).

There is one Tier II and two Tier 1D Chapter 21E sites in Medway as follows:

Table 4-3: Tier Classified Chapter 21E Brownfield Sites in Medway

| Site Name | Address | Zoning | Tier |
|---------------------|--------------------|-----------------------------|------|
| Main Street Shell | 86 Main Street | Central Business | Ш |
| Medway Oil Facility | 37 Broad Street | Village Commercial | 1D |
| N/A | 8 Populatic Street | Agricultural Residential II | 1D |

Source: MassGIS

One gas station on Main Street is classified as Tier II, meaning that permits from the Mass DEP are not required and response action may be performed under the supervision of a Licensed Site Professional, without prior DEP approval. The gas station is in cleanup phase and is located within the Central Business zoning district. The district is currently being targeted to encourage mixed-use redevelopment.

The Medway Oil Facility and 8 Populatic Street are located in the Village Commercial and AR-II zoning districts respectively and are designated as Tier 1D sites. Tier 1D includes any site where the responsible party fails to provide a required submittal to Mass DEP by a specified deadline. A site is categorically classified as Tier 1D on the date of its applicable transition deadline and is assessed annual compliance fees should the responsible party fail to submit certain paperwork to the department by the applicable deadline. Neither of Medway's Tier 1D sites are likely to be targeted for housing-related redevelopment in the foreseeable future.

It should be noted that the above list represents those sites on an inventory of sites with reported spills that has been prepared by DEP. It is not meant to suggest that these sites are undevelopable, nor is it intended here to imply that these are the only sites that may be hindered for development due to past spills. That judgment must necessarily be made on a site-by-site basis.

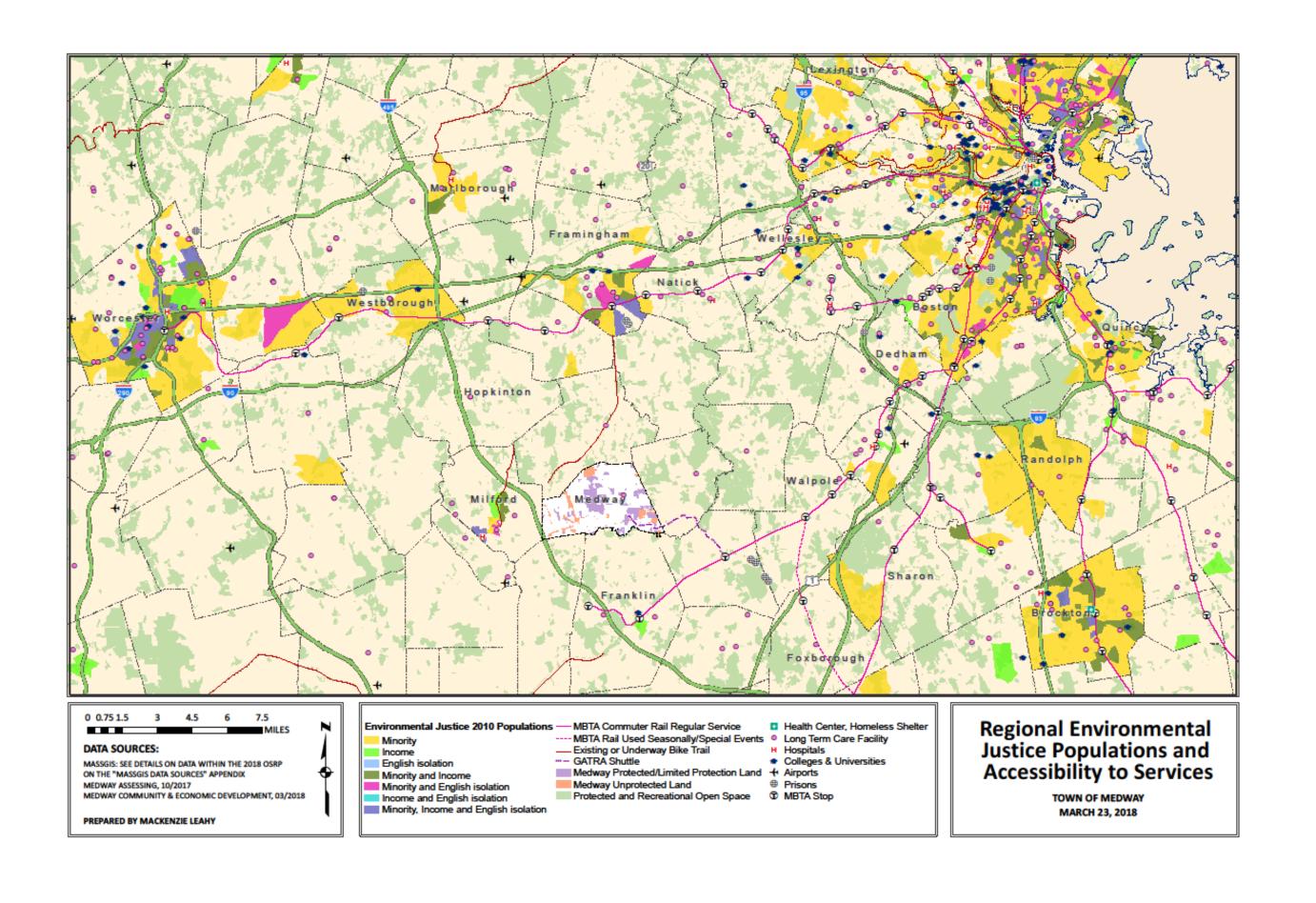
There are also two closed landfills in Medway. One is located off Broad Street and the other off Highland Street. Neither is shown as capped through information available from MassDEP, though both are inactive. The Town's Highway Garage and Recycling Center is adjacent to the capped landfill off Broad Street.

Invasive Species

One unfortunate change in Medway is the spread of non-native, invasive plants. They are establishing themselves on roadside, fields, woods, ponds and waterways - displacing native species. Burning bush, Japanese honeysuckle, Japanese knotweed, glossy buckthorn, and Oriental bittersweet are common invasive species in Medway. Wild Parsnip has been discovered at the Adams Street Conservation Area where volunteers have been successful in working to eradicate it from this location. Garlic mustard has been found at the Amphitheater, Choate Park and the trail leading to the high school. Trail Club, Scouts, and other volunteers have worked over the past few years to remove it.

Environmental Justice Populations

There are no environmental justice populations in Medway. Park and conservation resources are well distributed across town, offering all residents access to these facilities. There are environmental justice populations in the abutting Towns of Milford and Franklin, but these areas are located in the center of both communities and do not have any direct relationship with Medway. See Regional Environmental Justice Populations Map on the next page.



SECTION 5 INVENTORY OF EXISTING OPEN SPACE

There are 538 acres of permanently protected land in Medway, or 7.2% of the community's total land area. Permanently protected land is defined as land with a deed restriction in perpetuity such as a conservation restriction, or is owned by a government entity (municipal, state or federal) for conservation purposes. There are an additional 379 acres of Town-owned land used for recreation and open space, but without permanent deed restrictions for that use, and another 501 acres enrolled in one of the Chapter 61 current use tax programs, for a total of 19% of land currently dedicated to open space and recreation. Relative to neighboring towns, Medway has the lowest amount of *protected* recreational and open space in both total acres and as a percent of the town's total land area. Millis has the most protected land at 36.6% of the town, followed by Holliston with 24.6%.

Table 5-1 Regional Overview of Protected and Recreational Open Space

| Town | Protected & Recreational Land | Total Town Area (Acres) | Total Town Area (Square Miles) | % Land Area Protected & |
|------------|-------------------------------|-------------------------|--------------------------------|-------------------------|
| | (Acres) | , , | , | Recreational Land |
| Millis | 2,871 | 7,848 | 12.3 | 36.6 |
| Holliston | 3,002 | 12,193 | 19.1 | 24.6 |
| Norfolk | 2,161 | 9,853 | 15.4 | 21.9 |
| Franklin | 3,077 | 17,297 | 27.0 | 17.8 |
| Bellingham | 1,624 | 12,088 | 18.9 | 13.4 |
| Milford | 1,138 | 9,615 | 15.0 | 11.8 |
| Medway | 538 | 7,467 | 11.7 | 7.2 |

SOURCE: MassGIS Protected and Recreational Open Space, March 21, 2018; Town of Medway Assessor, FY17.

A. Private Parcels

Many private lands in Medway provide important public benefits such as surface and groundwater resources, wildlife habitat, rural character, wood products, food, and outdoor recreation. There are approximately 68 acres of privately-owned land with conservation restrictions held by the Medway Conservation Commission. See Table 5-2.

Table 5-2 Conservation Restrictions

| Map & Parcel | Owner | Street | Acres | Land Use |
|------------------|--------------------------|-------------------|-------|--------------------------|
| 55-005 portion | Williamsburg Condo | Williamsburg Way | 1.0 | open space/trails |
| | Association | | | |
| Portions of 69- | Medway Land Venture, LLC | Village Street | 37.4 | open space/trails |
| 015, 69-014, 69- | (Salmon Senior Living | | | |
| 015-0001, 69- | Community) | | | |
| 021, 69-013-0001 | | | | |
| 20-004 portion | Millstone Condo | Millstone Village | 20.4 | open space/trails |
| | Association | | | |
| To be | Timber Crest Estates LLC | Timber Crest | 9.66 | open space/trails/vernal |
| determined | | | | pool protection |

Chapter 61 Agricultural Land - Approximately 500.9 acres of privately-owned land in Medway are enrolled in one of the Commonwealth's Chapter 61 Current Use Tax Programs. See Table 5-4 below. The Chapter 61 programs give Massachusetts landowners an opportunity to reduce their property taxes in exchange for providing the ecosystem services and public benefits noted above and, in return, they commit to keeping some or all of their land undeveloped for a specified period of time. Chapter 61 lands are considered temporarily protected because at any time, the landowner can decide to sell or develop their land for another purpose. In those cases, the landowner must pay back the abated taxes, and the Town is given the first right of refusal to acquire the property. The Town can also assign this right to a conservation entity such as a land trust or state conservation agency. There are three different Chapter 61 programs: 61, 61A, and 61B.

Table 5-3 Chapter 61 Current Use Tax Programs

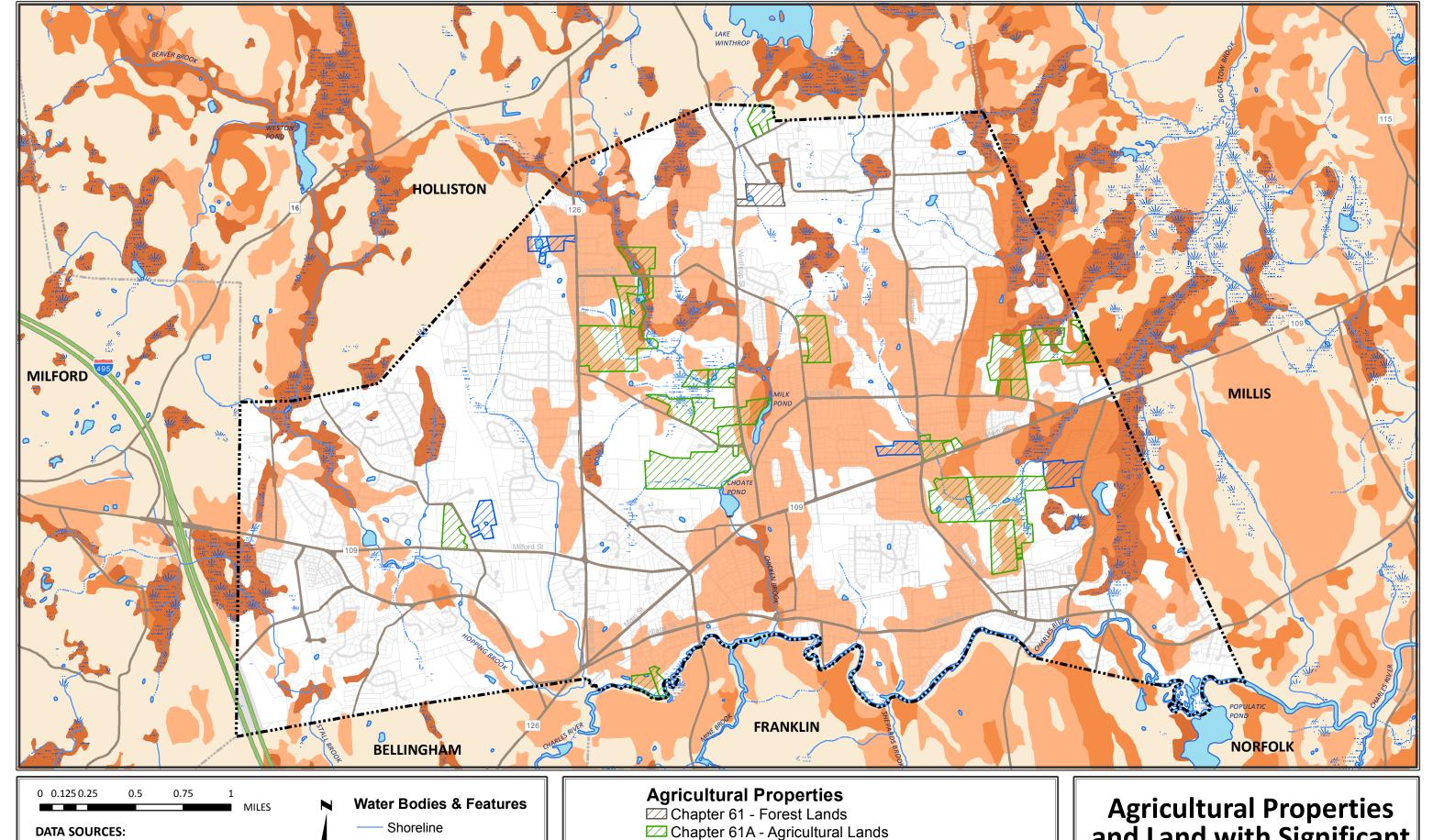
| | Intended for landowners interested in long-term, active forest management. Assessment of forestland under Ch. 61 is based on the |
|-----------------------|---|
| Chapter 61 – Forestry | land's ability to grow timber. Program requirements include ten or more contiguous acres, a state-approved forest management plan developed |
| | by a licensed forester or landowner, and periodic forest management as recommended by the forest management plan. |
| | Intended for landowners engaged in agricultural or horticultural use. |
| Chapter 61A - | Assessment is based on the land's ability to produce the agricultural or |
| Agriculture | horticultural product being grown. Forestland may be enrolled in this |
| | program and is based on your land's ability to grow timber. |
| | Intended for landowners interested in maintaining the land in a |
| | substantially natural, wild or open condition. Assessment of forestland |
| Chapter 61B - | under Ch. 61B is 25% of the current assessed value of the land. |
| Recreation | Landowners must have at least 5 contiguous acres of land. Forest |
| | management under Ch. 61B is not mandated. However, landowners do |
| | have the option of managing their forests if they develop a state |
| | approved forest management plan. |

Table 5-4 Chapter Lands in Medway

| Map & Parcel | Owner | Street | Acres | Land Use | | | |
|-----------------|--|--------------|-------|-------------------|--|--|--|
| Chapter 61 Land | Chapter 61 Lands (14.8 acres) | | | | | | |
| 08-024 | Hoag David G., Tr., Hoag Grace G., Tr. | Winthrop St | 14.8 | Forest | | | |
| Chapter 61A La | nds (438.8 acres) | | | | | | |
| 13-007 | Atwood, Paul and Rebecca | Lovering St | 13.4 | Field, Vegetable, | | | |
| | | | | Orchard | | | |
| 67-046 | Briggs Robert A | Waterview Dr | 8.0 | Pasture | | | |
| 67-061 | Briggs Robert A | Waterview Dr | 4.4 | Pasture | | | |
| 29-011 | Briggs Robert A | Adams St | 11.4 | Pasture | | | |
| 29-012 | Briggs Robert A | Winthrop St | 5.0 | Pasture | | | |
| 29-013 | Briggs Robert A | Winthrop St | 8.5 | Pasture | | | |
| 41-008 | Freil Realty II, LLC, Cassidy David L | Holliston St | 8.0 | Pasture | | | |
| 50-001-0001 | Hidden Acres Realty II, LLC, Cassidy | Holliston St | 29.0 | Piggery | | | |
| | David L | | | | | | |

| Map & Parcel | Owner | Street | Acres | Land Use |
|----------------|---|--------------------|-------|------------------|
| 50-001 | Hidden Acres Realty II, LLC, Cassidy David L | Main St | 60.9 | Piggery |
| 50-010 | Hidden Acres Realty II, LLC, Cassidy David L | Broad St | 21.9 | Piggery |
| 50-006 | Hidden Acres Realty II, LLC, Cassidy David L | Broad St | 0.8 | Piggery |
| 50-007 | Hidden Acres Realty II, LLC, Cassidy David L | Broad St | 0.4 | Piggery |
| 50-008 | Hidden Acres Realty II, LLC, Cassidy David L | Broad St | 0.2 | Piggery |
| 20-002 | larussi, David and Sandra | Lovering St | 10.0 | Field & Hay |
| 23-061 | Lally, John P, Lally Anne J | Coffee St | 24.0 | Pasture |
| 24-010-0002 | Lally, John P, Lally Anne J | Jayar Rd | 11.4 | Pasture |
| 24-010-0001 | Lally, John P, Lally Kathleen | Coffee St | 16.5 | Pasture |
| 32-025 | Lally, John D | Coffee St | 5.8 | Non-productive |
| 45-005 | Lobisser, Michael and Patricia | Milford St | 14.0 | Pasture |
| 42-028 | Lombard Tina J Et Al/Tr, Lombard Farms Realty Trust | Oakland St | 14.9 | Horseback Riding |
| 19-018 | Panachelli, Francis and Janine | Summer St | 50.0 | Fields & Hay |
| 24-005 | Revell Paul P. | Jayar Rd | 0.3 | Pasture |
| 24-007 | Revell Paul P. | Green Valley Rd | 1.0 | Fields & Hay |
| 24-009 | Revell Paul P. | Jayar Rd | 0.7 | Pasture |
| 38-005 | Shady Oaks Rlty.Tr, Briggs Robert A | Winthrop St | 32.0 | Pasture |
| 38-010 | Shady Oaks Rlty.Tr, Briggs Robert A | Winthrop St | 47.0 | Pasture |
| 39-001 | Shady Oaks Rlty.Tr, Briggs Robert A | Winthrop St | 8.0 | Pasture |
| 20-001 | Suttill, William and Jennifer | Lovering St | 10.3 | Fields & Hay |
| 21-093 | Wilson Paul R | Lovering St | 20.3 | Fields & Hay |
| 21-095 | Wilson Paul R | Lovering St | 0.7 | Fields & Hay |
| Chapter 61B La | nds (47.3 acres) | | | |
| 40-049 | Freil Realty II, LLC, Cassidy David L | Holliston St | 8.7 | Golf Range |
| 40-048 | Freil Realty II, LLC, Cassidy David L | Holliston St | 0.3 | Golf Range |
| 42-028 | Lombard Farms Realty Trust | Oakland St | 15.0 | Horseback Riding |
| 45-025 | Robertson Mariann P. | Fisher St | 11.6 | Nature Study |
| 12-006 | RSEC Realty Trust, Walter G. & | Claybrook | 4.5 | Horseback Riding |
| | Marian C. Haas, Trs. | Farm Rd | | |
| 12-014 | RSEC Realty Trust, Walter G. & | Claybrook | 2.0 | Horseback Riding |
| | Marian C. Haas, Trs. | Farm Rd | | |
| 12-007 | RSEC Realty Trust, Walter G. & | Summer St | 5.2 | Horseback Riding |
| | Marian C. Haas, Trs. | | | |
| TOTAL | | | 500.9 | |

See map of Medway's Agricultural Properties and Land with Agricultural Soils on the next page.



DATA SOURCES: Intermittent Stream MASSGIS: SEE DETAILS ON DATA WITHIN THE 2018 OSRP ON THE "MASSGIS DATA SOURCES" APPENDIX Perennial Stream MEDWAY ASSESSING, 10/2017 Open Water MEDWAY COMMUNITY & ECONOMIC DEVELOPMENT, 03/2018 Wetland PREPARED BY MACKENZIE LEAHY

- Chapter 61B Open Space & Recreation Lands

Farmland Soils

- All areas are prime farmland
- Farmland of statewide importance
- Farmland of unique importance

Agricultural Properties and Land with Significant Agricultural Soils

TOWN OF MEDWAY MARCH 23, 2018

Agricultural Preservation Restriction (APR) – The Commonwealth's Agricultural Preservation Restriction program is a voluntary program that offers a non-development alternative to farmland owners, who are faced with a decision regarding future use and deposition of their farms, for their agricultural lands. The program offers farmers a payment up to the difference between the "fair market value" and the "fair market agricultural value" of their farmland in exchange for a permanent deed restriction, which precludes any use of the property that will have a negative impact on its agricultural viability. (MA DAR, 2013). There are no properties in Medway with such agricultural preservation restrictions.

Other privately-owned open space in Medway include 256 acres held by three utility companies (NStar, New England Power Company, and Exelon Corporation). Much of this land is within the utility rights-of-way which are used as unsanctioned trails for all-terrain vehicles (TVs), mountain bikes, and hikers. These areas may provide opportunities for expanded recreational use depending on the receptiveness of the utility companies.

B. Public and Nonprofit Parcels

Medway has many parks, playgrounds, athletic fields, and conservation lands. Of the 815 acres of land owned by the Town of Medway, 97% is maintained for open space or recreation purposes. Of the open space and recreation lands, 436 acres are permanently protected (not including an additional 68 acres held as conservation restrictions on private land), and another 379 acres are unprotected. These lands are inventoried in Table 5-5 (Appendix A). The management of Town owned open space and recreation parcels is assigned to specific Town departments depending on the purpose or use of the land, as noted in Table 5-6 below.

Table 5-6 Town Owned Open Space & Recreation Parcels - Management Entity

| Entity | Acres | Acres | Acres | Use/Purpose |
|----------------------|-------|-----------|-------------|-----------------------------------|
| | | Protected | Unprotected | |
| Conservation | 256 | 251 | 5 | Conservation areas and open space |
| Commission | | | | |
| Board of Parks | 138 | 0 | 138 | Parks |
| Commissioners/DPW | | | | |
| Department of Public | 41 | 41 | 0 | Water supply, stormwater |
| Works (DPW) | | | | management |
| Council on Aging | 4 | 0 | 4 | Senior Center |
| Board of Selectmen | 270 | 144 | 126 | Community Farm, Thayer |
| board of Selectifier | 270 | 144 | 120 | Homestead, recreation, historical |
| | | | | properties, open space |
| School Committee | 106 | 0 | 106 | Schools and athletic fields |
| TOTAL | 815 | 436 | 379 | |

The following properties are owned by the Town of Medway and provide opportunities for passive and/or active recreation:

Charles River Access

Bresnahan's Landing, 57 Village Street – This is a canoe and kayak launch and fishing area on the Charles River, on land formerly owned by the Bresnahan family. Paddlers can travel downstream to Populatic Pond and takeout at River Street in Norfolk, or depending on conditions and paddling ability, go as far as South Natick before having to portage over the next dam. This site is not ADA accessible. There is a small gravel parking lot, lawn with a picnic table and kiosk, and grassed boat ramp. A wooden fence and fence posts restrict vehicle access to the boat launch.



Bresnahan's Landing canoe launch at the Charles River

Charles River Amphitheatre, Sanford Street - The

Charles River Amphitheatre is located behind the Sanford Mills Condominium parking lot, off of Sanford Street. The site provides canoe and kayak access to the Charles River, unimproved trails through a small field and open forest, and a picnic and sitting area. A gravel parking lot accommodates three cars at the entrance.



Ohnemus Picnic Area, between 311 and 315 Village Street - Ohnemus Picnic Area is a small area with picnic benches on the shore of the Charles River, next door to the Police Station. The park was created as a memorial to Kurt Ohnemus, a Medway Scout leader, by his son as an Eagle Scout project. This sitting area is accessible from a natural surface foot path through the woods, with no on-site parking.

Parks, Playgrounds and Ball Fields

Idylbrook Park, Kimberly Drive and Wards Lane - Idylbrook Park is a complex of athletic fields for soccer and baseball. A mowed path provides a loop trail around the athletic fields through a natural area. Two parking lots serve the park: at the end of Kimberly Drive and Wards Lane. One signed handicapped parking spot exists in each parking lot. The baseball diamond is at the end of a gated dirt access road from the parking lot off of Kimberly Drive.



Athletic fields at Idylbrook Park

Oakland Street Park, 82 Oakland Street - Oakland Street Park is one of Medway's primary athletic facilities with soccer fields, basketball courts and a playground. It is also adjacent to and connects to the Medway Senior Center. The parking lots for both facilities serve as overflow for large events. Currently at the park, there are two signed handicapped parking spots next to the playground and between the basketball court and soccer field, however a mobility impaired person would not be able to access the recreation facilities due to the lawn between the pavement and the site. Seasonal port-o-potty stalls serve as bathrooms (non-wheelchair accessible). In 2017, the Town completed a Master Plan for a full renovation of the park, reorganizing the parking, circulation, playground area, and other non-athletic portions of the park to create a more efficient and cohesive core. Construction began in the spring of 2018. Other than an expansion of the field closest to Oakland Street due to the relocation of the playground, the athletic fields and basketball court remain unchanged. The existing small storage building was replaced with a bathroom and office/storage structure. A new pavilion was built for public use. All of these renovations and improvements will meet ADA accessibility standards. The Oakland Park improvement project was completed in September 2018 to positive reviews and community enthusiasm.



Oakland Park Renovations

Choate Park Complex, Oak Street - The Choate Park Complex is the centerpiece of Medway's public spaces. The park consists of a series of active and passive recreational facilities surrounding Choate Pond including playgrounds for different age groups, tennis, basketball and volleyball courts, and trail around the pond connecting to Cassidy Field. Thayer Homestead, also owned by the Town of Medway, is adjacent to the park and is the location of community gatherings and events.

A park master plan completed in 2017 details a full renovation of the park, including ADA accessibility. Construction was initiated in the spring of 2018 and completed in September 2018. The project concentrated primarily on the "core area" of Choate Park including a new wood pavilion, bathrooms, playgrounds for multiple age groups, a tricycle path, water spray feature, sitting areas, and new trees.



New Choate Park Pavilion - Photo by Tim Rice

The project will improve the pathway around Choate Pond and a branch connection up to Cassidy Fields to provide a firm, stable, slip-resistant surface of stabilized decomposed granite to satisfy accessibility requirements. The renovated pathway will be suitable for maintenance and public safety vehicle access and has an ADA-accessible slope with the exception of the steeply sloped portion to the north of the site between the bridge and Cassidy Field, where regrading for accessibility would create too large a disturbance area. Occasional seating will be provided along this pathway.

Cassidy Field, Cassidy Field road, off Winthrop Street - The Cassidy Field complex is home to Medway Youth baseball. The complex consists of baseball diamonds, a batting cage, a concession stand and sitting area with picnic tables, bathrooms, and a trail connection to Choate Park.

North Street Park and Playground, corner of School and North Street - The North Street Park and Playground has a large playground, sand play lot, and basketball court. There are a few benches and two picnic tables.

Village Street #1, 304 *Village Street* – A small roadside park with benches and a flagpole. A sidewalk on Village Street offers convenient access for pedestrians.

Grand Army of the Republic Memorial Park, across from 315 Village Street - The Grand Army of the Republic Memorial is a small park and memorial set off the sidewalk on Village Street.

Henry Garnsey Canine Recreation Park, 302 Village Street The Henry Garnsey Canine Recreation Park, also known as the Medway Dog Park, is an off-leash, fenced dog park at the intersection of Village and Cottage Streets. There is a gravel parking lot for six to eight cars, some benches, and a large kiosk/shed with tools for spreading wood chips, and a bulletin board for posted rules and regulations.



Conservation Areas

Many of the acres held as Town conservation lands do not offer public access typically due to site conditions such as extensive wetlands or the parcel is landlocked. The following are two exceptions:

Adams Street Meadow Conservation Area, Adams Street - Adams Street Meadow Conservation Area is one of Medway's newest passive recreation facilities and includes 63.9 acres. A trailhead on Adams Street follows the edge of the utility right-of-way, old farm roads, a series of new foot bridges, and leads to the Chicken Brook boardwalk. In 2016, the Conservation Commission commissioned the Conway School of Landscape Design to develop the Adams Street Ecological Management Plan.



Deerfield Street Pond, across from 20 Deerfield Street - Deerfield Street Pond is a very small pond located on 3.48 acres across the street from 20 Deerfield Street, with a narrow, natural surface trail around the pond. Access to the pond is along a short natural surface path through a forested area. This conservation area was set aside as part of the residential subdivision that surrounds the pond.

Trails

With hearty souls and strong backs, Medway Trail Club and other community volunteers have worked with Town staff to develop a network of trails within the Chicken Brook Corridor. Financial support has been provided from Community Preservation Act funds and community donations.





Other Town Owned Open Space



Medway Community Farm, 50 Winthrop Street - Medway Community Farm, Inc. is a non-profit organization that has leased fourteen acres and the dwelling at 50 Winthrop Street from the Town of Medway since 2009. The Farm operates a community supported agriculture (CSA) program, farm stand, educational programs with the Medway Public Schools, and holds special community events. The property was purchased by the Town with CPA funds. A trail open to the public runs through the farm property.

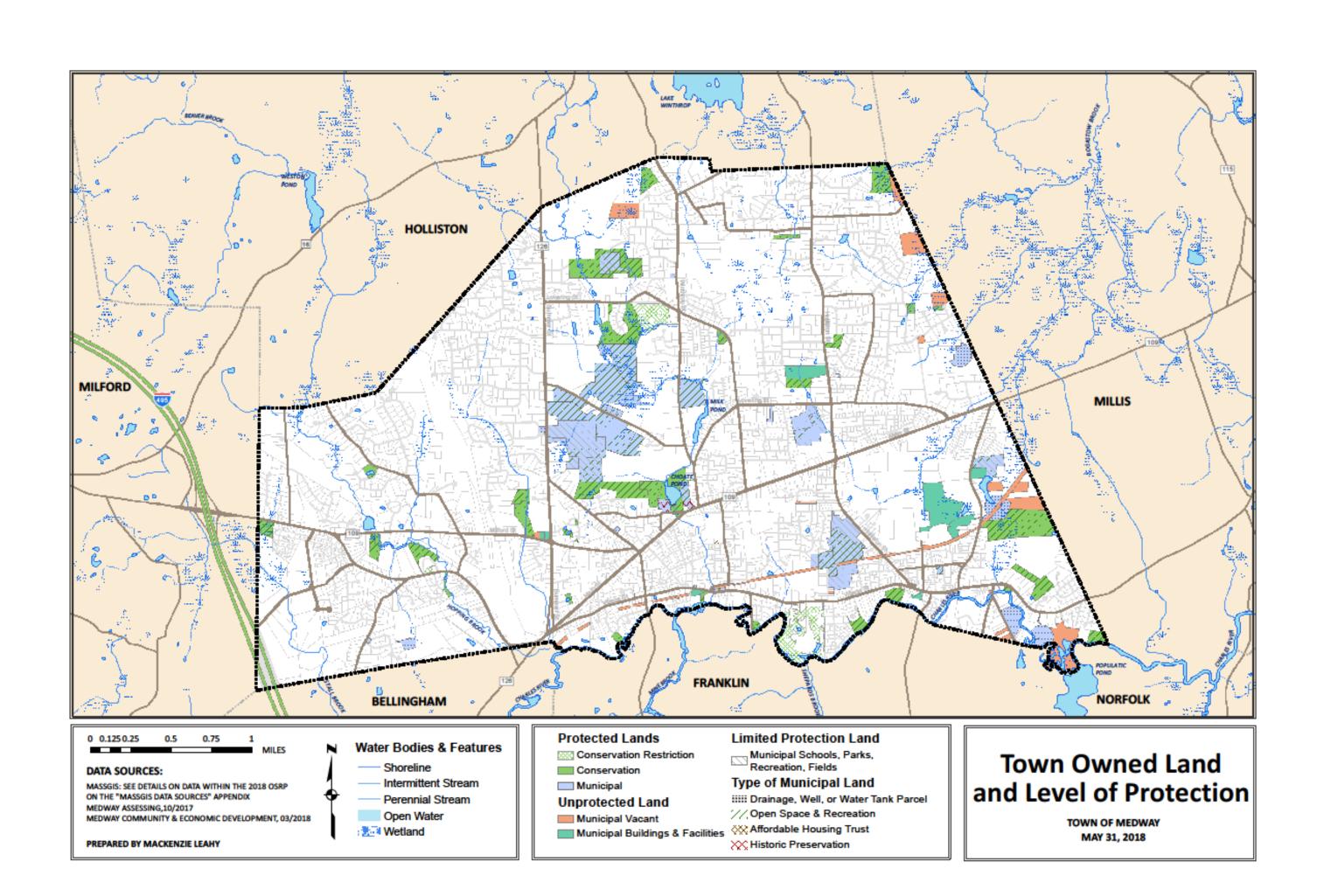
VFW property - In January 2018, the Town acquired the Medway Veterans for Foreign Wars (VFW) property at 123 Holliston Street. The 12.5 acre site includes a function facility built in 1962, athletic fields, parking and open space. Local VFW Post 1526 continues to fulfill its service mission from this location. The property has potential for fuller recreational use.

Jacob Ide House – Using CPA funds, the Town purchased the historic Jacob Ide house and property at 158 Main Street. The 1.41 acre site abuts Medway's Choate Park and has potential as another community facility for the Choate Park area. Possible use of the building by the Medway Historical Society is under discussion.

See map of Town Owned Land and Level of Protection on the next page.

Other Open Space Property in Medway

Other publicly owned land in Medway includes 43 acres owned by the U.S. Army Corps of Engineers as part of the Charles River flood control project. Medway has participated with



Bellingham and Franklin for the Charles River Meadowlands Initiative to develop strategies to improve public access to and management of this valuable 500-acre natural resource area.

C. Lands of Conservation and Recreation Interest

There are 1,748 acres of privately-owned lands within Medway that are of interest for protection as conservation or recreation land. Nonprofit and religious institutions own 220 acres of land within Medway, some of which is available for passive recreation. The OSRP Task Force identified these lands utilizing an overlay analysis based on an expansion of criteria originally developed a number of years ago by the Open Space Committee to evaluate the value of a parcel for possible acquisition.

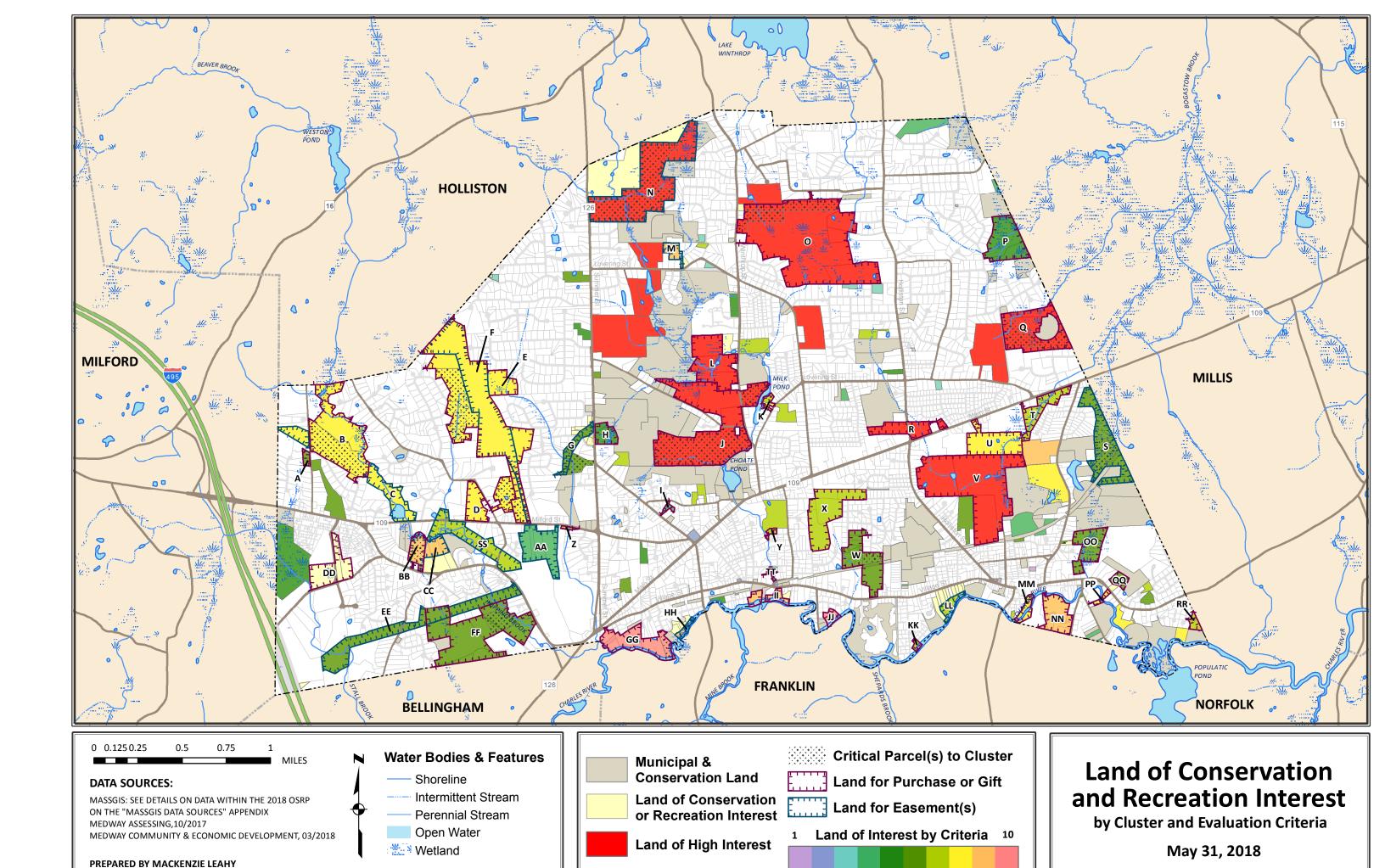
The updated criteria used by the Task Force are outlined in Table 5-7 below. Once parcels were identified based on these criteria, they were ranked by the Task Force and, evaluated as to whether individual parcels would be more valuable individually or as part of a cluster. See Appendix B – Table 5-8: Privately Owned Lands of Open Space, Conservation or Recreation Interest and map of Lands of Conservation and Recreation Interest by Cluster and Evaluation Criteria on the next page

Table 5-7 Criteria for Evaluating Privately Owned Lands

| a. | Preserves | land and | d open | space |
|----|-----------|----------|--------|-------|
|----|-----------|----------|--------|-------|

- b. Preserves wildlife habitats and/or corridors
- c. Protects wetlands, ponds, vernal pools, waterways, water resources, and/or groundwater/ drinking water
- d. Contains important historical, geological, or local landmark features; is a property of unique character; could provide/expand upon existing unique features
- e. Is located adjacent to or provides frontage or access to parcels owned by the Town or another government agency or land trust, or which are otherwise protected, thus creating opportunities for connections
- f. Abuts or provides access to the Charles River or other waterways
- g. Provides a large area of vacant land of two or more acres
- h. Is an area of high visual or aesthetic value
- i. Could provide, improve or expand recreational uses/facilities/*community parks
- j. Could be used for a *pocket park
- k. Could be used for trails or to connect to existing trails including properties adjacent to railroad right-of-way
- I. Requires limited preparation to achieve intended use
- m. Is classified as Chapter 61, 61A, or 61B, or is otherwise used for similar uses and/or promotes agriculture or community gardening

*Community Park – Serves as a social and recreational focal point for residential neighborhoods. It may offer a range of facilities and spaces for passive or active (programmed or un-programmed) recreation in response to demographic and cultural characteristics of surrounding neighborhoods, along with opportunities for interaction with nature. They may include landscaped areas, open space, recreation centers, sports fields and courts, playgrounds, and/or trails and associated parking. Community parks range in size up to thirty acres and can often be accessed by foot or bicycle from nearby neighborhoods.



*Pocket Park (also known as a parkette, mini-park, vest-pocket park or vesty park) - A very small outdoor open space or greenery area, usually no more than ¼ of an acre, which provides a safe and inviting environment for immediate nearby residents. Pocket parks are frequently created on a single vacant building lot or small, irregular piece of land. Pocket parks usually include benches.

These criteria for protection also correspond with the four priority goals for open space that have been adopted by the Open Space Committee:

- 1) Preservation of a greenway along Chicken Brook;
- 2) Access to the Charles River;
- 3) Farmland preservation; and,
- 4) Creating more and accessible trails including the development of a rail trail.

SECTION 6 COMMUNITY VISION

A. Description of Process

As noted in Section 2 Introduction, the process for developing the 2018 OSRP took place over a twelve-month period between June 2017 through June 2018 and included a community survey, three public forums, stakeholder interviews, and numerous Task Force meetings. This process significantly informed the Task Force's understanding about community needs and guided the development of the OSRP goals and objectives and the Seven-Year Action Plan.

Community Survey

A community survey was open for a two-month period from September 11 to November 7, 2017; 305 responses were received. The survey was available online at Survey Monkey and in paper version at the Senior Center, Town Hall and Public Library. The following is a summary of the survey results.

Places for outdoor recreation dominated the top five most important values/characteristics of Medway:

- 1) Safe paths or sidewalks for pedestrians and bicycles
- 2) Community parks
- 3) Trails for walking and running
- 4) Active recreation facilities (e.g. sport fields, playgrounds, etc.)
- 5) Rivers, streams and ponds



Of the twenty-four places identified in the survey for outdoor recreation, knowing where a place is located and where to get information about a place correlated with the level of use of the facility. For example, 100% of respondents know where Choate Park is and 98% of respondents stated they use the park. In comparison to the Medway Amphitheatre, only 26% of respondents stated they know where it is, and 89% of respondents stated they have never visited the facility. The places respondents indicated they used the most included Choate Park and playground, Oakland Park and playground, Idylbrook Park, Cassidy Field, and Thayer Homestead. School playgrounds and athletic fields were used on average by 50% of respondents. Only 38% of respondents used the Garnsey Dog Park off Village Street, and 17% used the canoe launch and picnic area on the Charles River at Bresnahan's Landing. More than 79% of respondents did not know where to get information about Deerfield Road pond, Winthrop Street Park, Medway Amphitheatre, Colonel Matondi Park, the public basketball courts, Bresnahan's Landing, or the North Street Park and Playground.

Use of trails in Medway also corresponds to knowing where a place is and/or where to get information about the trail. The Choate Pond trail is used the most by respondents (91%) followed by the Choate Park to High School trail (64%), and the Idylbrook Park trail (48%). However, more than 50% of respondents did not know where to obtain information about any of the trails in Medway.

The lack of bathroom facilities was the top major concern (58%) about existing parks and non-trail recreation areas, followed by degraded facilities (54%), inadequate maintenance (43%), lack of seating (30%), and trash (28%). The top major concern about existing trails was inadequate wayfinding or directional signs (53%) followed by vegetation encroaching on trails (37%), personal safety (26%), inadequate maintenance (24%), and lack of bathroom facilities (22%). Last, 43% of respondents felt that all age groups are well served by existing recreation facilities. The age groups respondents felt were not well-served included teens (15%), children ages five to 12 (14%), and seniors ages fifty to seventy (14%).

Although Medway does not have any Environmental Justice populations, concerns about equitable distribution of open space and recreation facilities across Medway and access by all residents was explored in the survey. Fifty-nine percent (59%) of respondents stated they can walk to a park or conservation area within 10 minutes from their home. Of those that were not within a 10-minute walk, 75% felt it is important to be able to walk from home to a park or conservation area.

Overall, the ranked priorities for recreation and open space resources over the next seven years are as follows based on the survey results:

- Protect and maintain existing parks and conservation areas. Expand/renovate current parks and recreation facilities to meet community needs.
- 2) Protect and maintain existing farmland.
- 3) Acquire and protect new land for conservation areas.
- 4) Develop new trails.
- 5) Acquire and protect new land for parks and recreation.
- 6) Acquire and protect new land for agriculture.



Actions people are willing to take to support expanded open space and recreational offerings include voting to approve financial resources at Town Meetings, allowing use of their own property for trails, volunteering their time, and donating money and land.

Table 6-1: Actions People are Willing to Take for Open Space and Recreation

| Vote at Town Meeting to appropriate funds to protect new land for parks and | 74% |
|---|------|
| recreation | |
| Vote at Town Meeting to appropriate funds to protect land for new | 69% |
| conservation areas | |
| Vote at Town Meeting to appropriate funds to protect farmland | 59% |
| Support construction of a sidewalk or roadside path along the road on my property | 52% |
| Volunteer my time as part of a periodic work crew to maintain town parks, open | 47% |
| volunteer my time as part of a periodic work crew to maintain town parks, open | 4//0 |

| space/conservation areas or trails | |
|---|-----|
| Volunteer my time to help build new trails | 37% |
| Donate money for the maintenance and management of town-owned conservation land | 19% |
| Donate/sell an easement on my property to establish new trails to create | 14% |
| connections to a town-wide trail network | |

Public Forums

October 3, 2017, 7-9pm, Thayer Homestead

Approximately thirty people attended the first public forum to kick off the plan update and begin to identify community priorities for the coming years. As a warm up exercise and to help attendees become oriented to the many open space and recreation resources in town, the walls of the room were lined with large format maps of Medway's parks and conservation areas; residents were asked to place sticky notes with comments about these places on the maps. Members of the Open Space Committee, Parks Commission, EPFRAC, and the Medway Trails Club presented the accomplishments achieved since the 2010 OSRP was completed. Attendees broke out into small groups to identify the places and characteristics of the community enjoyed by residents, and any issues or needed improvements that should be addressed. Each of the groups reported their findings back to the full group, and the results were categorized according to type of need or action described.

March 12, 2018, 7-9pm, Thayer Homestead

At the second public forum, approximately forty people attended. Matt Hayes, Chair of the Open Space and Recreation Plan Task Force presented an overview of the planning process thus far and consultant Anne Capra of Conservation Works presented the results of the community survey. Ms. Capra then presented a slide show utilizing a GIS overlay analysis to illustrate some of the existing natural resources in town (e.g. water supplies) and their relationship to priority development and protection zones. Attendees then broke out into small groups and reviewed a map of existing protected and unprotected open space resources in Medway. Each group was provided with a list of criteria for open space protection developed by the Open Space Committee. Each group was asked to review the criteria and identify places to target for protection based on the criteria. Each small group reported back to the full group.

June 25, 2018, 7-9pm, Medway Public Library

Approximately thirty-two people attended the third and final public forum. The Draft 2018 Open Space and Recreation Plan was issued for public comment on June 20, 2018. A summary of the planning process completed over the past year was presented, and information about how to review the draft plan on the Town's website and submit comments was provided. Attendees broke out into small groups and discussed the goals and objectives and the seven-year action plan. Each group reported back with their comments.



Attendees at June 2018 Community Forum

Stakeholder Interviews

In addition to the outreach described above, planning consultant Anne Capra conducted one on one interviews with a representative from certain Town departments, boards and committees to learn about their current programming, initiatives and priorities for the coming years. These included the Open Space Committee, Conservation Commission, Agricultural Commission, Department of Public Services, Community Preservation Committee, Medway Trail Club, and the Upper Charles River Conservation Land Trust.

Conservation Land Assessment and Management Plan Training Retreat

Conservation Works members Anne Capra, Pete Westover and Molly Hale provided a full day training workshop on Saturday, May 5, 2018 in conservation land assessment techniques and land management plan development for twelve individuals from Town boards, committees, and departments tasked with oversight and care of Town conservation lands. An overview of Baseline Document Report (BDR) guidelines and the tools and resources used for conducting site assessments was presented. The training then moved to the Charles River Amphitheatre property off Sanford Street where attendees broke into three groups and conducted an assessment of the site looking at boundaries, trails and other recreation facilities, and ecological conditions.





Attendees Glenn Trindade, Tina Wright, Mike Francis and Paul Atwood conducting site assessments at the Charles River Amphitheatre training retreat on May 5, 2018.

After the field work, the groups convened back at Town Hall for lunch and each reported their findings about site conditions. Based on these findings the groups brainstormed about management needs and recommendations for the property. Planning consultant Anne Capra then developed a Baseline Document Report and Management Plan for the Amphitheatre site utilizing the information collected at the training retreat. This BDR and management plan will be used as a template for developing BDRs and management plans for other Town-owned conservation lands in the years ahead.

B. Statement of Open Space and Recreation Goals

The community vision outlined in this plan is much the same as it was in 2010. Residents cherish Medway's parks and conservation areas. Existing trails are heavily used, and residents have expressed a great desire to expand and develop a town-wide network of trails, with opportunities to connect to regional, long-distance trails as well. Parks and other facilities for outdoor recreation have become places for families to gather and people of all ages to get outdoors and participate in community events year-round. With all of this investment in open spaces, some residents realize that planning for sustainable growth in appropriate places is ever more critical as a key strategy for protecting Medway's rural character.

Medway's rural character is preserved through the permanent protection of open space, working farms, outdoor recreation, and historic landscapes on which the culture and character of our community are founded.



As a result of the planning process, the OSRP Task Force has established the following overarching goals:

GOAL #1 - Important natural resources are protected and sustainably managed for future generations to use and enjoy.

GOAL #2 - A range of recreational opportunities exist on Town lands with adequate resources dedicated to their maintenance.

GOAL #3 - A network of well-maintained trails exists across Medway, with a strong stewardship program established.

SECTION 7 ANALYSIS OF NEEDS

Medway has always been a pleasant place to live. Because of this, there has been steady population growth since the end of World War II due to Medway's proximity to Boston and Providence, Rhode Island, reaching a peak in the 1990s. Although growth slowed in the 2000s, it is estimated to have picked up again between 2010 and 2016, consistent with other towns in Norfolk County. The development associated with these new residents has affected the character of the community. Once a small farming town, the construction of I-495 in the



Choate Pond at Choate Park

SOURCE: Tim Rice

1960s triggered the conversion of rural roadways into suburban collectors, especially Route 109, the main east-west corridor, and Route 126, a north-south artery.

Community and regional plans for economic growth seek to direct growth to the Route 109 corridor and focus conservation of undeveloped land along the Chicken Brook corridor flowing through the center of town in a north to south direction, and along the Charles River, which forms Medway's southern boundary with Franklin and Norfolk.



Charles River below Sanford Mill Dam viewed from the Sanford Street Bridge From Bostonkayaker.com

Protecting land in Medway in these areas would not only provide scenic views and potential for additional canoe landings and walking trails but would also help create larger contiguous blocks of open space regionally, creating connections to protected lands in the surrounding towns of

Holliston, Franklin, and Norfolk. Several priority parcels for protection in east Medway would provide additional buffer area for one of the Town's wells and offer connections to a protected corridor at the Black Swamp in Millis. Within this regional network of open space, the value of conserving additional land in Medway is amplified.

Because of the significant number of utility lines in Medway, protecting parcels following the utility lines north into Holliston from West Street could encourage a wildlife corridor, and provide connections between vernal pools and larger wetland bodies and core habitat areas for species of conservation concern. With proper easements, these could also serve as trail connections. Opportunities for trail development on land or easements owned by the utility companies have been identified. Outreach efforts to the utility companies could be initiated to discuss public access opportunities.



Utility rights-of-way have the potential to be viable trail corridors.

Some of the smaller parcels considered for protection in West Medway could provide land for a West Medway Park that many residents and Task Force members believe is needed and would like to pursue. Several of the high priority parcels within the Chicken Brook corridor provide a unique opportunity for an extensive trail system connecting farming, recreation, protected resources and school landscapes. With thoughtful expansion, the trails within the Chicken Brook Corridor could extend from the northern and southern boundaries of Medway, up into Wenakeening Woods in Holliston, with additional potential to connect to the regional Upper Charles Trail in the future. Other large priority parcels offer potential for cluster or planned unit developments that would encourage land preservation while also providing alternative housing options for young families and the growing over 65 population.

A. Summary of Resource Protection Needs

Stewardship

As the Town continues to increase its focus on stewardship of its conservation lands, it needs to ensure that adequate policies, resources and staff are available to engage in planning and land management practices. A desire for increased maintenance at Town-owned conservation areas has been expressed through the public engagement process. For DPW staff to expand their maintenance activities into conservation areas, there would need to be additional funding allocated for new staff, and possibly new equipment for trail surface maintenance, brush clearing, trimming and removal of fallen trees along narrow path alignments.



Medway Trail Club members gather to forge the new Millstone trail in November 2018.

Development of a robust volunteer stewardship program is of interest to the Open Space Committee and Medway Trail Club, both of whom currently perform a considerable amount of stewardship on Townowned conservation areas. The Trail Club currently has many followers, indicating a keen interest in new trails, and seeks to increase community participation. Current civic partners in these efforts have included the Boy and Girl Scouts.

Expansion of the stewardship program will require dedicated leadership to manage and coordinate this effort. Potential activities identified for volunteers include trail maintenance, new trail construction, invasive species removal, biological inventories, monitoring conservation restrictions, conducting baseline inventories, and supporting public education and outreach programs. Leadership will be required from the Open Space Committee to provide guidelines for work to be done, to ensure smooth interface among Town and volunteer workers, and to ensure that work is done in accordance with OSRP goals and Conservation Commission regulations.



Trash removed by Medway's "Trail Elves" in preparation for trail blazing.

Baseline Inventory and Monitoring Program

The Open Space Committee and Conservation Commission are seeking to develop a baseline inventory and monitoring program for new and existing Town owned conservation properties. These inventories typically result in the production of a Baseline Document Report (BDR). The primary objective of a BDR is to identify and document the boundaries of a property and the existing conditions of the site at the time of its acquisition. Members of the Open Space Committee, Conservation Commission, Department of Public Services, and OSRP Task Force attended a training session on May 5, 2018 offered by Anne Capra and colleagues from Conservation Works about how to conduct a site inventory (Charles River Amphitheatre site)

and develop the associated report, utilizing the Massachusetts Executive Office of Energy and Environmental Affairs Baseline Document Report (BDR) Specifications. BDRs are also now a requirement for all conservation restrictions acquired with CPA funds and for any open space/conservation properties acquired in fee. Further, for any Town-owned conservation areas requiring a third-party holder of a conservation restriction, the third party typically requires a BDR to be completed prior to any conveyance of ownership. This has become standard practice in the land conservation community nation-wide due to national accreditation standards that local land trusts are seeking from the national Land Trust Alliance. This accreditation is critical for land trusts to procure insurance and, manage their endowments in relation to legal challenges from issues such as enforcement against encroachments. Table 5-7 in Appendix A provides a list of all Town owned lands and identifies the parcels acquired with CPA funds.

Land Management Plans

Detailed biological inventories and habitat assessments are typically beyond the scope of a standard BDR but may be necessary to develop a land management plan. For example, if the purpose of a particular property is to manage the land for forestry or to provide habitat for a specific rare plant or animal species, it is important to have those conditions assessed by a qualified professional and, recommendations provided that are appropriate to the intended use or purpose of the property. All land management plans should seek to support the goals and objectives of this OSRP.

Lands of Conservation Interest

While Medway has acquired lands of conservation interest in recent years, it must continue to use creative strategies to permanently protect the remaining lands of interest. Land conservation in Medway can generally be grouped into meeting the following objectives:

- 1. Improving recreational access to the Charles River and maintaining a healthy river corridor.
- 2. Protection of the Chicken Brook stream corridor and creation of the associated Medway Link Trail, a pedestrian greenway connecting to Holliston.
- 3. Protection of open space and agriculture within the Zone II aquifer district in the southeast corner of town and, in the center of town along Route 109.
- 4. Expansion of the trail network onto land and easements owned and managed by the utility companies.
- 5. Development of a rail trail corridor along the abandoned rail line.

The Land of Conservation and Recreation Interest Map (see Section 5) identifies lands that would support the community's goals and objectives for open space and recreation and, provides a prioritized matrix for their conservation. The Appendix includes a table titled Privately Owned Lands of Open Space, Conservation or Recreational Interest that corresponds to this map and, provides detailed information about parcel ownership, size, current use, potential use, and whether the parcel should be part of a cluster to fulfill its potential use. The table identifies 46 clusters, or potential groupings of land, to achieve the goals and objectives outlined in this plan. Within these clusters, 767 acres on 47 parcels are identified as "land of high interest". Of these high priority lands, 51% (391 acres) are currently enrolled in Chapter 61, 61A or 61B as productive lands. The Town should be prepared, if these parcels come up for sale, to exercise its right of first refusal to acquire them, or assign that right to a qualified conservation entity, such as a land trust. Since it may not be financially feasible for the Town to acquire an additional 767 acres of open space, other strategies for preservation of these open space areas need to be evaluated. Some options include working with landowners to have them permanently protect the land through conservation

restrictions or agricultural preservation restrictions. Some of the parcels may be appropriate for limited development clustered onto the areas of low ecological value, with the corresponding preservation of areas of high-quality natural resources. A review of Medway's Zoning Bylaw to identify ways to incentivize open space protection and the use of green infrastructure is recommended, for example, by allowing Open Space Residential Developments by right with Site Plan Review rather than as a Special Permit.

Drinking Water Quality and Quantity

As discussed in Sections 3 and 4, Medway's water supply faces some challenges. There is enough permitted capacity to meet current demand needs, but the existing four wells cannot safely pump enough water to meet future projected water demands. The Town is under water restrictions from the Massachusetts Department of Environmental Protection (DEP) and has established community wide water conservation measures. Demands on Medway's water supply may only increase in the future with climate change. Integrating the challenges climate change pose to the natural world into our decision-making process is critical.

According to the U.S. Environmental Protection Agency, climate change forecasts for the northeast United States call for warmer weather and increased occurrences of large storm events with high precipitation rates over short duration events, i.e. more floods, warmer weather, and longer dry spells and drought conditions. Heat waves, heavy downpours, and sea level rise pose growing challenges to many aspects of life in the Northeast. Infrastructure, agriculture, fisheries, and ecosystems will be increasingly compromised, challenging the region's environmental, social, and economic systems. This will increase the vulnerability of the region's residents, especially its most disadvantaged populations. The scientific evidence demonstrates that this change is attributable to the surge in greenhouse gas emissions generated by fossil fuel energy sources, such as oil, coal and gas. These emissions trap heat in the earth's atmosphere, raise world temperatures, increase water vapor in the air, and ultimately create more extreme weather events like Tropical Storm Irene in 2011 and Superstorm Sandy in 2012.

B. Summary of Community's Needs

Trails and Recreation Facilities

Throughout this planning process, residents have expressed a strong interest in expanding the existing trail network throughout town. The Medway Community Link Trail in the Chicken Brook corridor has seen recent improvements with the Chicken Brook boardwalk and trail connections from Adams Street. There is a trail from Choate Park to the Medway High School, but not yet from the high school to Idylbrook. The Chicken Brook boardwalk and trail will help fill some of this gap, but a trail is still needed through Iarussi Way, an Open Space Residential Development off of Lovering Street.

The Medway Community Link Trail was first envisioned close to 20 years ago during the 2000 Master Plan process. The Town and community have worked persistently over those years toward its completion. See Figure 7-1 for a map of showing the concept plan for the Medway Link Trail Network.

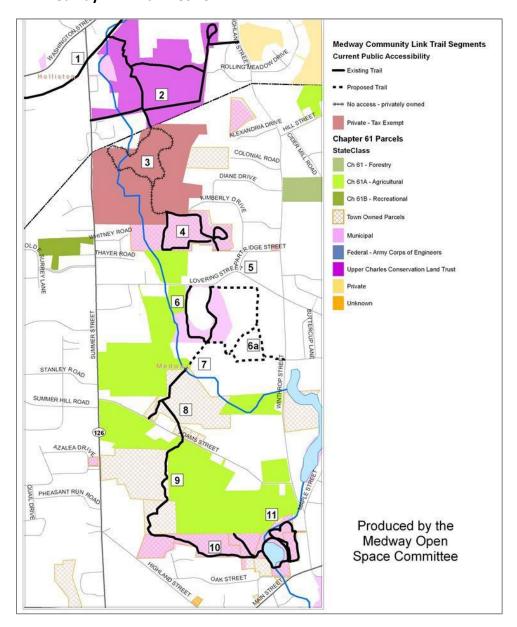
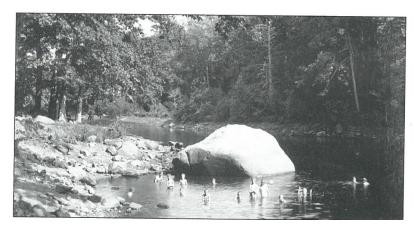


Figure 7-1 Medway Link Trail Network

An approved 40B subdivision of 147 detached single-family houses on 150 acres off Holliston Street, Winthrop Street and Fairway Lane has been evaluated for open space and recreation opportunities in conjunction with its development and will include a conservation restriction on wetland resources located within the development area.

Improving recreational access to the Charles River is also of great interest to the community. Public access currently exists at the Amphitheatre off Sanford Street, and at Bresnahan's Landing and Ohnemus Picnic Area, both on Village Street. The recently approved Salmon senior living community off Village Street will provide public access to the Charles River. The Charles is a popular blue trail, with the potential for adding several more access points along its shores in Medway.



C. 1895 "The Big Rock" in the Charles River, a few hundred feet upriver from the Sanford Mill Dam, was a popular swimming spot.

SOURCE: Hoaa and Howker. 2004

The Statewide Comprehensive Outdoor Recreation Plan (SCORP) was updated in 2017 based on a statewide public outreach process. The four goals of that plan are:

- Access for underserved populations.
- Support the statewide trails initiative.
- Increase the availability of water-based recreation.
- Support the creation and renovation of neighborhood parks.

The needs, goals, and actions addressed in Medway's 2018 OSRP are consistent with these statewide goals for outdoor recreation. Although Medway is not racially or ethnically diverse with 93% of the population as white (American Community Survey 2015), 11.7% of the population is age 65 or older. Activities for seniors are programmed through the Medway Senior Center, located next door to Oakland Park. Most of the improvements planned or underway at Choate and Oakland Parks are to improve ADA accessibility of the facilities. These improvements will benefit people of low or limited mobility in all age groups.

Beginning in the summer 2019, Camp Sunshine will operate out of a new building at Oakland Park. This 6-week summer program works with children of all age groups with disabilities. Established in 1968, Medway is proud to host this program in conjunction with the many accessibility improvements at the park.

In some communities, youth, specifically teens, are typically underserved. However, Medway has sought to provide ample recreation opportunities for kids of all ages. In Medway, there has been great investment in the improvement of youth athletic fields over the past five years. Athletic field have been added at Medway High School. Playgrounds are or have undergone extensive renovations at Choate and Oakland Parks. Further, the Town has hired a full-time Parks and Recreation Director to develop youth and community programming to address a wide variety of recreational interests. These initiatives have been enthusiastically received by the community.



Choate Park Improvements Under Construction - August 2018

Lands of Agricultural Interest

As development pressures rise and prime agricultural lands diminish, Medway's remaining private farmland is in jeopardy. Several of the highest priority lands of interest for conservation and recreation are working farms. These include a piggery on Broad Street, pastureland on Winthrop, Adams, Summer Streets, pastureland on Waterview Drive, and pastureland and a golf driving range on Holliston Street. These and other farms in Medway, including the Medway Community Farm on Winthrop Street, a community supported agriculture (CSA) operation, provide both scenic landscapes and a source of locally grown food.



Medway Community Farm

Medway's newly established Agricultural Commission has begun an inventory of existing farms and farm products with the intention of developing a marketing guide for locally sourced products. As is the case with publicly accessible trails and conservation lands, some local farm products are available, but residents aren't sure where they are located or where to get information about them. Marketing and promotional materials and events, such as the Medway Community Farm's educational programs, help the community support the local economy and foster the character of the community desired by residents.

Needs for Persons with Disabilities

Please refer to the Appendices for Medway's American's with Disabilities Act (ADA) self-evaluation information for handicap accessibility. The self-evaluation provides an outline of how accessible the Town's conservation and recreation properties and programs are to people with disabilities. Currently none of Medway's conservation areas are accessible to mobility impaired people. Some of the active recreation facilities, including Choate and Oakland Parks and Cassidy Fields, do offer handicapped accessible bathrooms and parking. Both Choate and Oakland Parks experienced major renovations in 2018, much of which will significantly improve their accessibility to mobility impaired people.

C. Management Needs, Potential Change of Use

Several parcels identified as lands of conservation and recreation interest are in areas zoned for commercial or industrial use. At the west end of Medway at the boundary with Milford, there is a parcel on the south side of Route 109 that is within the 43D Priority Development zone and identified within the Urban Renewal Plan as having potential for industrial or commercial development. Due to these designations for development, this parcel of open space may be difficult to acquire for such purposes but may be well-suited for clustered development and green infrastructure practices to conserve some of the land closest to the adjacent wetlands to the west.

Another parcel off interest is on Route 109 in the center of town and is currently used as pasture and a golf driving range. This parcel is zoned for commercial use due to its location along the primary east-west transportation route through town. Rezoning this parcel for non-commercial uses would be needed to regulate the type of development here, unless the land was acquired in fee or development rights through a conservation restriction.

Last, several undeveloped parcels in the southeast corner of town have been identified for conservation. This area is part of the Town's Zone II aquifer. If these properties are not put into conservation, an Open Space Residential Development with a set aside for conservation might be an option to preserve aquifer recharge in this area.

SECTION 8 GOALS AND OBJECTIVES

The OSRP Task Force has established the following goals and objectives in priority order as follows:

GOAL #1 - Important natural resources are protected and sustainably managed for future generations to use and enjoy.

Objectives:

- 1-1 Smart growth and development are consistent with the character of the community and protects important natural resources.
- 1-2 Surface and groundwater resources are clean and sustainable as a public water supply and ecological system.
- 1-3 Management plans are developed to identify resources and followed for Town-owned conservation areas and recreation facilities.
- 1-4 A broad range of funding sources is identified and pursued for the protection of natural resources.
- 1-5 Protected corridors along Chicken Brook, Hopping Brook and the Charles River exist and are used for passive recreation compatible with habitat protection.
- 1-6 Existing farms are preserved, and farming is supported as part of the local economy.
- 1-7 Educational programming about Medway's natural resources is expanded in the local schools and throughout the community

GOAL #2 - A range of recreational opportunities exist on Town lands with adequate resources dedicated to their maintenance.

Objectives:

- Funding is available to support the maintenance of recreation facilities in accordance with land management plans.
- 2-2 Access to the Charles River is available at multiple locations and for a range of uses and is promoted
- 2-3 Existing parks and recreation facilities are updated, and improved access for people of all abilities is provided.
- Residents are well-informed about open space and recreational resources in town through a coordinated outreach campaign utilizing a variety of outreach and media outlets.

GOAL #3 - A network of well-maintained trails exists across Medway, with a strong stewardship program established.

Objectives:

- 3-1 Trails are accessible through ample wayfinding and directional signage.
- 3-2 Existing trails are mapped and well-publicized to residents.
- 3-3 Opportunities for developing new trails to improve connectivity across town are identified and projects developed, and connections to regional trail networks are developed.

SECTION 9 SEVEN-YEAR ACTION PLAN

Responsible Party

AC Agricultural Commission
BOS Board of Selectmen
CC Conservation Commission

CED Department of Community and Economic Development

CPC Community Preservation Committee

DPW Department of Public Works

GIS GIS Coordinator

OSC Open Space Committee

EPFRAC Evaluation of Parks, Fields and Recreation Areas Committee MACC Massachusetts Association of Conservation Commissions

MAPC Metropolitan Area Planning Council

MPS Medway Public Schools

NHESP Massachusetts Natural Heritage and Endangered Species Program

PC Board of Parks Commissioners

PEDB Planning and Economic Development Board

TM Town Manager
TC Town Counsel

Timeline

| Year 1 | 2019: | July 2018 - June 2019 |
|--------|-------|-----------------------|
| Year 2 | 2020: | July 2019 – June 2020 |
| Year 3 | 2021: | July 2020 – June 2021 |
| Year 4 | 2022: | July 2021 – June 2022 |
| Year 5 | 2023: | July 2022 – June 2023 |
| Year 6 | 2024: | July 2023 – June 2024 |
| Year 7 | 2025: | July 2024 – June 2025 |

Possible Funding Sources

| T 0331DIC T UTIO | |
|------------------|---|
| DAR | Massachusetts Department of Agricultural Resources has a program to offer technical assistance to Agriculture Commissions, and other grant programs available to farmers to support agricultural business entrepreneurialism and best management practices. https://www.mass.gov/guides/agricultural-grants-and-financial-assistance-programs |
| | APR Program: https://www.mass.gov/service-details/agricultural-preservation-restriction-apr-program-details |
| DCR | Community Forest Stewardship Grants from Massachusetts Department of Conservation and Recreation https://www.mass.gov/files/documents/2016/08/or/csfg-implentation-grants.pdf |
| DLTA | District Local Technical Assistance Grants available through the Regional Planning Agencies (MAPC) https://www.mapc.org/about-mapc/funding-opportunities/ |
| DCS Grants | Massachusetts Department of Conservation Services (DCS) has over ten active grant programs for various aspects of land conservation and environmental stewardship projects. https://www.mass.gov/grant-programs-offered-by-the-division-of-conservation-services/need-to-know |
| LAND | LAND Grant program (DCS) helps cities and towns acquire land for conservation and passive recreation purposes. The grants reimburse cities and towns for the acquisition of land in fee or for a conservation restriction. https://www.mass.gov/service-details/local-acquisitions-for-natural-diversity-land-grant-program |



Table 9-1: Medway OSRP Seven-Year Action Plan

| АСТ | TIONS | Responsible Party | Timelin e | Potential Funding |
|-----|--|----------------------|---------------|-------------------|
| LAN | ID MANAGEMENT | | | |
| 1 | Complete baseline document reports (BDR) for Town-owned open space/conservation areas; prioritize properties that have been acquired with CPA funds (see Table 5-7) | CC, DPW, OSC | On-going | СРА |
| 2 | Complete management plans for Town-owned open space/conservation areas | CC, DPW, OSC, PC | On-going | СРА |
| 3 | Mark boundaries on properties with completed BDRs | CC, DPW, OSC | 2020- 2023 | СРА |
| 4 | Develop detailed biological inventories (plant and animals) for properties of high ecological value (Chicken Brook corridor, Charles River corridor); report rare species to NHESP for documentation/certification | CC, OSC | On-going | СРА |
| 5 | Establish annual monitoring program for properties with BDRs and management plans | CC, DPW, OSC | 2019 | СРА |
| 6 | Secure funding for additional DPW personnel to perform maintenance on Town-owned open space/conservation areas; consider creation of a "land management fund" | BOS, DPW, CC | 2019- 2020 | |
| 7 | Seek advice from MACC about appropriate uses of Conservation Commission's Trust Fund to determine if funds can be used to support conservation assessment and planning activities on Town conservation lands | СС | 2019 | |
| 8 | Establish a volunteer stewardship program to assist with maintenance of conservation areas (general maintenance, invasive species control, biological inventories, etc.) | OSC, CC | On-going | |
| 9 | Establish guidelines for the use of pesticides and herbicides on all Town-owned lands (conservation areas, parks, recreation facilities, road rights-of-way) | DPW, CC | 2020 | |
| 10 | Establish sound practices for managing invasive species on Town-owned land; implement invasive species control practices | CC, DPW, PC, OSC | 2020 | |
| 11 | Establish rules and regulations for Town-owned properties with public access about dog use, horse riding, trash, ATV use, snowmobiling, etc. | CC, PC, BOS | 2019 | |

| 12 | Review Town bylaws, rules, and regulations and amend to allow dogs and their owners | CED, OSC, Parks, | 2020- | |
|-----|---|---------------------------|---------------|-------------------------|
| | to access trails | Animal Control | 2021 | |
| 13 | Establish water management program for Town-owned lands to optimize water conservation | DPW, CC, PC | 2019 | |
| 14 | Establish Memorandum of Understanding with local condo associations responsible for open space maintenance – Millstone, Pine Ridge, Charles River, Williamsburg | CED, CC, TC | 2020 | |
| 15 | Establish a forest stewardship program at the Klein Conservation Area; consider acquisition of abutting properties between Choate and High School for creation of a Town Forest | CC, OSC | 2021- 2025 | DCR |
| 16 | Trail benches – identify locations for benches and advocate for funds to purchase benches | OSC | 2020- 2025 | CPA, DCR |
| 17 | Evaluate public accessibility and parking at conservation areas and develop and implement plans for improvement | OSC, CC, BOS, DPW | On-going | CPA, DCR |
| 18 | Identify subdivisions with drainage parcels and explore opportunities for connections with open space parcels | PEDB, CC, OSC | 2022- 2025 | |
| 19 | Implement strategic improvements to management practices on Town-owned land as indicated in Appendix B – Town of Medway Lands - Recommendations | All boards and committees | On-going | СРА |
| LAN | D CONSERVATION | | | |
| 20 | Stay informed about grant program land conservation; communicate with grant program administrators about lands of interest and seek their guidance about how to best structure a competitive grant application; submit grant applications for all eligible projects | OSC, CED, CC | On-going | DCS Grants |
| 21 | Develop working relationships with landowners and understand the types of opportunities for conservation that may be appropriate for each parcel (easements, conservation restrictions, fee acquisition, etc.) | OSC, BOS, CED | On-going | |
| 22 | Strategically pursue lands of conservation and recreation interest (easements, conservation restrictions, fee acquisition, etc.) | OSC, BOS, CED, CPC | On-going | DCS Grants, CPA, DAR |
| 23 | Acquire properties adjacent to the Medway Community Farm and other agricultural | BOS, AC, CPC, | On-going | DCS Grants, |

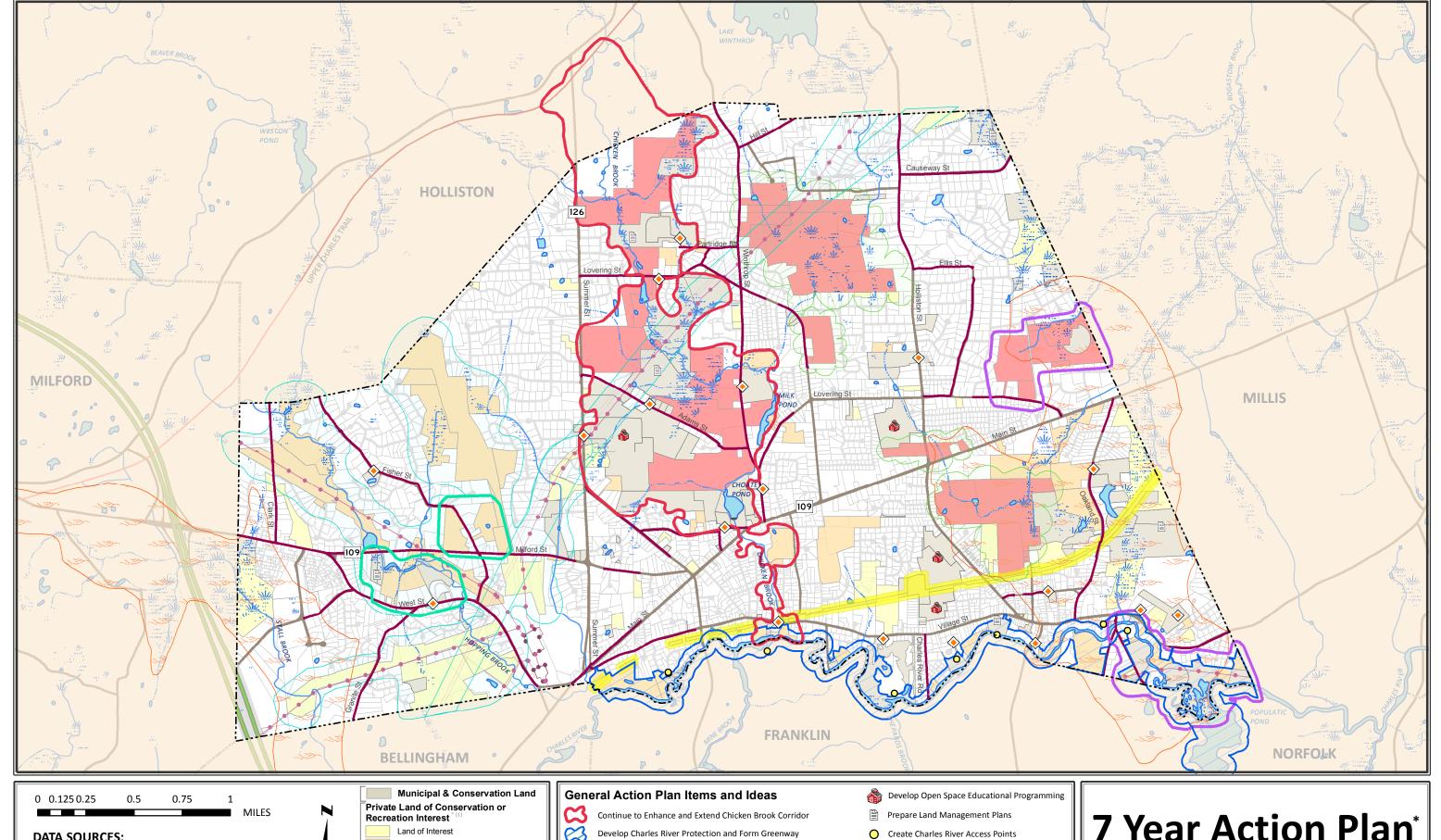
| | properties for expansion of farm operations | OSC | | CPA, DAR |
|-----|---|-----------------------|---------------|-------------------------|
| 24 | Work with farmers across Medway to seek permanent protection of farmland | BOS, AC, CPC, OSC | On-going | DCS Grants, CPA, DAR |
| LAN | ID USE AND ENVIRONMENTAL PLANNING | | | |
| 25 | Develop a rail trail master plan from Holliston Street east to Millis; secure funding | CED, MAPC, OSC | On-going | CPA, DLTA |
| 26 | Establish preferred use of Adams Street Conservation Area | BOS, CC, OSC | 2019 | |
| 27 | Work with Medway's GIS Coordinator to upload new open space GIS layers developed through BDRs, management plans, and annual monitoring, for use by Town staff and residents | GIS, CED, CC | 2019- 2025 | DLTA |
| 28 | Continue to promote open space conservation and cluster developments through permitting requirements for new residential development | CED, CC, PEDB | On-going | |
| 29 | Open Space Residential Development – Evaluate allowing by right with Site Plan Review rather than through Special Permit, and amend Zoning Bylaw | CED, CC, PEDB | 2019- 2020 | |
| 30 | Conduct a Zoning Bylaw review to assess how opportunities to implement Green Infrastructure and conserve open space are either incentivized or not encouraged; amend Zoning Bylaw to incentivize the implementation of Green Infrastructure and/or conservation of open space | CED, CC, DPW, MAPC | 2019- 2020 | DLTA |
| 31 | Explore options within the Zoning Bylaw to allow farming operations to pursue other commercial enterprises for diversification of farm revenue and enhancement of farm viability (e.g. manufacture, production and sale of goods and services derived from farm products, such as micro-brewed beers) | CED, PEDB, AC | 2021- 2023 | |
| 32 | Revise OSRD and ARCPUD regulations to require boundaries of open space parcels be surveyed and marked prior to conveyance to the Town | CED, PEDB, CC | 2019- 2020 | |
| 33 | Utilize opportunities to develop pocket parks on vacant Town-owned lands, new subdivisions, new commercial/industrial developments/redevelopments; develop program for working with neighborhoods on pocket park design, construction and stewardship | CED, BOS, DPW | On-going | DCS Grants |
| 34 | Communicate with neighboring communities to explore opportunities for trail | CED, MAPC, OSC | On-going | DLTA |

| | connections, particularly in Holliston, Millis and Bellingham, and to create larger blocks of contiguous open space | | | |
|-----|--|------------------------------|---------------|-----------|
| 35 | Work with the local utility companies to allow public access along utility rights-of-way | TC, DPW, TM, BOS, OSC | 2019- 2025 | |
| 36 | Collaborate with Agricultural Commission to identify programs to preserve and support local agriculture, including the use of Agricultural Preservation Restrictions (APR) | AC, BOS, CC, OSC | 2019 | DAR |
| 37 | Inventory existing farms and farm products; develop marketing brochure for local farm products | AC, CED, | 2019 | DAR |
| 38 | Prepare park master plan for former VFW property on Holliston Street, recently acquired by Town | CED, PC, OSC, DPW, TM | 2019- 2021 | CPA, DLTA |
| EDU | CATION AND OUTREACH | | | |
| 39 | Develop a coordinated marketing campaign that includes all the education and outreach tasks identified here | CC, EPFRAC, PC, OSC, CED, | On-going | |
| 40 | Promote and market trail maps available for Town lands | OSC, CC, CED | On-going | |
| 41 | Continue to develop directional and wayfinding signs for all publicly accessible parks, conservation areas, open spaces, and recreation facilities. | PC, CC, OSC, EPFRAC | 2019- 2025 | СРА |
| 42 | Educate residents about invasive species control practices through workshops and outreach materials (brochures, etc.) to be developed. | CC, OSC | On-going | |
| 43 | Develop programming with Medway Schools to engage kids in the local environment; develop outdoor classroom at a local conservation area or on school grounds | MPS, CC, OSC | 2020- 2025 | |
| 44 | Promote Town website as source of information about recreational resources, trails, and conservation lands; develop instructional video about how to find info on website | CED, OSC, PC, CC | 2019- 2021 | |
| 45 | Design and implement signage for CPA funded projects and properties – "This property was purchased using Community Preservation Act Funds" | CPC | On-going | СРА |
| 46 | Sponsor community education events at local parks and conservation areas; develop brochures, fact sheets, lecture series, videos, etc. about topics | PC, OSC, CC | On-going | |

| 47 | Develop interpretive signs/displays for place-based learning in conservation areas about plants, animals, natural communities, and historical significance | OSC, CC | 2022- 2025 | СРА |
|-----|---|------------------------------|---------------|-----|
| 48 | Evaluate public accessibility and parking at conservation and open space areas; develop and implement plans to provide or expand access. | OSC, DPW, CC | On-going | |
| ORG | ANIZATIONAL CAPACITY | | | |
| 49 | Encourage community participation with the OSC to support sustained implementation of OSRP | OSC | On-going | |
| 50 | Continue communication between and among Town boards and committees; consider holding a regular all Town board meeting | All Boards and Committees | On-going | |
| 51 | Coordinate outreach about open space initiatives with School Department; utilize Community Update and school administration newsletters as outlets | SC, OSC, CED | On-going | |
| 52 | Dedicate Town resources to grant writing, and developing strategic partnerships with conservation entities (state agencies, land trusts, etc.) to leverage capacity to implement action items | TA, BOS, CED | On-going | |

See map depicting the OSRP 7 Year Action Plan on the following page.

In addition to the above, the OSRP Task Force developed a specific list of recommendations for addressing recreation and open space opportunities for existing Town owned open space and recreation lands. See Table 9-2 in Appendix C.



DATA SOURCES: Land of Moderate Interest MASSGIS: SEE DETAILS ON DATA WITHIN THE 2018 OSRP Land of High Interest ON THE "MASSGIS DATA SOURCES" APPENDIX Water and Wetland Resources MEDWAY ASSESSING, 10/2017 Shoreline MEDWAY COMMUNITY & ECONOMIC DEVELOPMENT, 03/2018 Intermittent Stream Perennial Stream Open Water PREPARED BY MACKENZIE LEAHY

Develop Wayfinding, Trail Mapping, Parks, and Protect Water and Wetland Resources Open Space Information Expand Well Protection Zones and Evaluate Trail Options Study Options for West Medway Park Review Conflicting Zoning for Smart Growth & Development** (2) Improve Existing and Construct New Sidewalks Protect Wildlife Corridor and Evaluate Trail Connection Options** **Colors of underlying layers (1) may be slightly altered by the transparent Study Potential for Rail Trail

7 Year Action Plan*

August 14, 2018

*This Map is intended to be illustrative and does not represent all Action Items outlined in the OSRP Plan, but rather the overarching ideas. Please see Action Plan table in OSRP for more information.

SECTION 10 PUBLIC COMMENTS

Letters are attached from the following:

- Town of Medway Board of Selectmen, August 13, 2018
- Town of Medway Agricultural Commission, July 26, 2018
- Town of Medway Conservation Commission, July 27, 2018
- Town of Medway Open Space Committee, July 31, 2018
- Town of Medway Board of Parks and Recreation Commissioners, July 16, 2018
- Town of Medway Planning and Economic Development Board, August 2, 2018
- Upper Charles Conservation Land Trust, July 10, 2018
- Metropolitan Area Planning Council, September 10, 2018

Board of Selectmen

Dennis P. Growley, Chair John A. Foresto, Vice–Chair Richard A. D'Innocenzo, Clerk Glenn D. Irindade Maryjane White



Medway Town Hall 155 Village Street Medway, MA 02053 Phone (508) 533-3264 Fax (508) 321-4988

TOWN OF MEDWAY COMMONWEALTH OF MASSACHUSETTS

August 13, 2018

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

Dear Ms. Cryan,

At its meeting on August 13, 2018, the Board of Selectmen reviewed and discussed the draft of the updated Medway Open Space and Recreation Plan (OSRP) produced by the OSRP Update Task Force.

The Task Force was established just over one year ago by the Planning and Economic Development Board. The Board commends the Task Force's work and the active participation of its members in the planning process along with consultant Anne Capra of Conservation Works and Town staff. We are pleased that the process has brought together representatives of the Town's various land use, planning, open space and parks/recreational boards and has resulted in enhanced communication and cooperation among them. This planning endeavor was supported financially by the use of Medway's CPA funds.

I am pleased to inform you that the Board supports the updated OSRP. We believe it contains suitable goals for Medway and an ambitious 7 Year Action Plan to guide both the Town and the community as we pursue expanded open space and recreational opportunities in the years ahead. The Board looks forward to collaborating and assisting the Task Force with implementing the plan's recommendations.

Sincerely,

Dennis P Crowley

Chairman

Town of Medway Agricultural Commission Town Hall, 155 Village Street Medway, MA 02053

July 26, 2018

Susan Affleck-Childs Planning and Economic Development Coordinator Town Hall, 155 Village St. Medway, MA 02053

Dear Susan Affleck-Childs,

This letter is to inform you that our Commission has reviewed the draft Open Space and Recreation Plan (OSRP) at our July 18, 2018 meeting. We agreed that the Plan was generally a fair and complete appraisal of the Town's Open Space and Recreation resources and needs. The following is our recommendation of additional emphasis for inclusion in the final submittal.

In the section of the Plan entitled Seven Year Action Plan, Education and Outreach, we'd like to see a reference to and continuing support for the program of farm based education; a collaboration between the Medway Public Schools and Medway Community Farm.

Sincerely,

Paul Atwood, Chairman

Town of Medway Agricultural Commission

Paul E atwood

CC: Town of Medway Agricultural Commission Members



Town of Medway

Conservation Commission

Conservation Office Town Offices 155 Village Street Medway, MA 02053 508-533-3292

July 27, 2018

Medway Open Space and Recreation Task Force Committee c/o Matthew Hayes 155 Village Street Medway, MA 02053

Dear Mr. Hayes,

The Medway Conservation Commission strongly believes that our open space proposed 2010 -2017 goals and achievements have been driven by our 2010 Open Space and Recreation Plan (OSRP) and the towns volunteers. Although, our Town has only completed two Open Space and Recreation Plan over the past 15 years, the Commission thinks it is a wonderful document that assists the Towns in creatively implementing the creation and care of open space for the public enjoyment. The OSR Task Force Committee is comprised of members from different Boards, Committees and Commission who represent many of Medway's interests. The OSR Task Force Committee has shown great enthusiasm in setting up multiple public forms and most exciting the Land Management exercise at the Amphitheatre. The residents were engaged and there was an increase in attendance and participation throughout the process.

The Medway Conservation Commission is excited about partnering with the Open Space Committee and other stakeholders who will assist in achieving the goals described within the 2017 Open Space and Recreation Plan. This exercise alone helps all staff, residents and volunteers begin to familiarize themselves with the land around Medway and how important it is to our community. Although the Town has progressed in its land management and acquisition there are many more project identified in this new production of the Open Space and Recreation Plan. The Commission is hopeful that our community can bring many of these proposed items within the 7-Year Action Plan to fruition.

Thank you,

David Travalini, Chair

Medway Conservation Commission



155 Village Street Medway, Massachusetts 02053

> Tina Wright, Chair Denise Legee, Vice-Chair Charles Ross, Clerk Brian Cowan Michael Francis Bruce Hamblin James Wickis JoAnne Williams

July 31, 2018

Susan E. Affleck-Childs Planning and Economic Development Coordinator Town of Medway 155 Village Street Medway, MA 02053

Re: Medway Open Space and Recreation Master Plan - 2018

Dear Susan,

The Medway Open Space Committee would like to note our complete support for the updated Medway Open Space and Recreation Plan.

We appreciate the support of the OSRP Task Force members. The time and effort expended to complete the plan is evident.

The Plan will provide a useful template for the Open Space Committee and other Town boards and committees to follow over the next several years.

Thank you for facilitating the process.

Sincerely,

Tina Wright

Tina Wright
Chair, Medway Open Space Committee

Telephone: 508-533-3291

Email: openspacecommittee@townofmedway.org



Town of Medway Board of Park & Recreation Commissioners 155 Village Street Medway, Massachusetts 02053

(508) 533-3275

508-321-4985 (Fax)

Mike Tudino

Debi Rossi

Sean Murphy

July 16, 2018

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

Dear Ms. Cryan,

Please accept this letter as a formal recommendation of approval and support of Medway's recently updated Open Space and Recreation Plan. On Tuesday, July 10, 2018, Medway's Parks Commission voted 3-0 in favor of the Plan and supporting all elements of the Plan's updates.

As a Commission we recognize that the Plan is a key element in the stewardship of Medway's open space. The Plan has inventoried existing parks, playgrounds, athletic facilities, and other lands of conservation interest. It has identified community needs and established a prioritized action plan for improving passive and active recreational properties, facilities, programs throughout our Town. The updating of the plan will make Medway eligible for state funding for various open space and recreation project initiatives as well.

Sincerely,

Michael Tudino Chair, Parks Commission

Debi Rossi Vice Chair, Parks Commission

Sean Murphy Member, Parks Commission



TOWN OF MEDWAY

Planning & Economic Development Board

155 Village Street Medway, Massachusetts 02053

> Andy Rodenhiser, Chairman Robert K. Tucker, Vice-Chairman Thomas A. Fay, Clerk Matthew J. Hayes, P.E. Richard Di Iulio

August 2, 2018

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

Dear Ms. Cryan,

The Medway Planning and Economic Development Board is very pleased to be "on the record" with its enthusiastic support for the recently updated Medway Open Space and Recreation Plan. The plan was prepared under the leadership of the Open Space and Recreation Plan Update Task Force with the capable assistance and guidance of Anne Capra of Conservation Works and staff support provided by the Medway Department of Community and Economic Development. Funding for the update was provided by Medway's Community Preservation Act funds with the full support of the Community Preservation Committee and Town Meeting.

The Open Space and Recreation Plan Update Task Force was established by the Planning and Economic Development Board in June 2017. The group was comprised of representatives of the Town's Open Space Committee, Conservation Commission, Board of Parks Commissioners, Agricultural Commission, Board of Selectmen, School Committee, and the Planning and Economic Development Board. Other active participants in the process included the Medway Trail Club, the Upper Charles Conservation Land Trust, and Town staff. Over the course of 12 month planning process, the Task Force held 18 meetings/work sessions, conducted a community opinion survey, sponsored three public community forums, and participated in a land management training workshop conducted by Conservation Works. The planning process has helped forge solid working relationships among the various boards and committees who are and will be involved in carrying forth the OSRP Action plan in the years ahead.

At its July 24, 2018 meeting, the Planning and Economic Development Board voted unanimously to endorse the updated Open Space and Recreation Plan and pledged to work proactively toward its implementation.

We extend our congratulations and appreciation to the Open Space and Recreation Plan Update Task Force, to Anne Capra, and Town staff for a job well done. The Open Space and Recreation Plan will serve as an outstanding guide for the community's ongoing and future open space and recreation efforts.

Best regards,

Andy Rodenhiser Chairman

508-533-3291 planningboard@townofmedway.org



July 10, 2018

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

Dear Ms Cryan,

I'm writing this letter to support the approval of Medway's update Open Space Recreation Plan. Medway's Open Space Committee's task force, that spearheaded the plans creation, did a fantastic job of outreach to the community, and local organizations. They worked hard at getting input from all and synthesizing it into a comprehensive plan.

In particular Upper Charles Conservation Land Trust is pleased with the plan's stated goals and actions that support conservation of currently owned parcels, and the guidance the document provides for future acquisitions of conservation holdings.

Sincerely,

James Wieler

President

Upper Charles Conservation Land Trust

1 A White

cc: Upper Charles Conservation Land Trust Board



SMART GROWTH AND REGIONAL COLLABORATION

September 10, 2018

Susan E. Affleck-Childs Planning and Economic Development Coordinator Town of Medway 155 Village Street Medway, MA 02053

Dear Ms. Affleck-Childs:

Thank you for submitting the "Town of Medway Open Space and Recreation Plan 2018-2025" to the Metropolitan Area Planning Council (MAPC) for review.

The Division of Conservation Services (DCS) requires that all open space plans must be submitted to the regional planning agency for review. This review is advisory and only DCS has the power to approve a municipal open space plan. While DCS reviews open space plans for compliance with their guidelines, MAPC reviews these plans for their attention to regional issues generally and more specifically for consistency with *MetroFuture*, the regional policy plan for the Boston metropolitan area.

Consistency with MetroFuture - MetroFuture is the official regional plan for Greater Boston, adopted consistently with the requirements of Massachusetts General Law. The plan includes 65 goals and objectives as well as 13 detailed implementation strategies for accomplishing these goals. We encourage all communities within the MAPC region to become familiar with the plan by visiting www.mapc.org/get-involved/metrofuture-our-regional-plan.

We are pleased to see that the Medway Open Space and Recreation Plan will actually help to advance several *MetroFuture* goals and implementation strategies that relate specifically to open space, recreation, trails, and the environment generally. In fact, this plan identifies many positive connections with *MetroFuture*, including planning with neighboring communities around shared resources, particularly protection of the Charles River watershed; enhancing recreational access to the Charles River; protection of regional wildlife corridors; and increasing bicycle and pedestrian accessibility, such as through potential additional connections to open spaces in adjacent communities.

Surrounding communities - The plan acknowledges the Town's efforts to collaborate with other communities with the assistance of MAPC. One recommendation encourages Medway to communicate with neighboring communities to explore opportunities for trail connections, particularly in Holliston, Millis and Bellingham. The plan advocates for the protection of natural resources in Medway, which in turn helps to create larger contiguous blocks of open space regionally, creating connections to protected lands in the surrounding towns of



SMART GROWTH AND REGIONAL COLLABORATION

Holliston, Franklin, and Norfolk. As stated in the plan, "this regional network of open space, the value of conserving additional land in Medway is amplified".

The Medway Open Space and Recreation Plan should serve the Town well as it continues its efforts to preserve open space and provide for the recreational needs of its residents.

Thank you for the opportunity to review this plan.

Sincerely,

Marc D. Draisen Executive Director

cc: Melissa Cryan, Division of Conservation Resources

REFERENCES

"2010 Open Space and Recreation Plan: Town of Medway." *Townofmedway.org.* PGC Associates, Inc., Sept. 2010.

"2009 Medway Master Plan." Townofmedway.org. Planning and Economic Development Board.

"Annual Water Quality Report 2016." Townofmedway.org. Town of Medway Water Division

"Bellingham Dam Removal Project Frequently Asked Question Sheet." Townofmedway.org

"BioMap2: Conserving the Biodiversity of Massachusetts in a Changing World, Medway." Massachusetts Department of Fish & Game and the Nature Conservancy, 2012.

"Bresnahan's Landing Paddling Map." Townofmedway.org. Medway Open Space Committee, May 2015.

"Charles River Monthly Monitoring 2016 Year-end Report." cwra.org. Charles River Watershed Association (CRWA)

"Charles River Issues." cwra.org. Charles River Watershed Association (CRWA)

"Committee Meeting Minutes." *Townofmedway.org.* Medway Community Preservation Committee, May 1, 2017.

Conley, Lucy and Serrill, Doug. "Adams Street Conservation Area Ecological Management Plan, Prepared for the Town of Medway Conservation Commission." The Conway School, Winter 2016.

"Guide to Medway's Open Spaces." Townofmedway.org. Medway Open Space Committee, May 2015.

Harper, Lynn C. Habitat Protection Specialist, Massachusetts Natural Heritage & Endangered Species Program. Personal communication in the form of *MassWildlife* letter. 21 Aug. 2017.

Haley and Ward, Inc. Draft Medway Water Integrity Report. October 16, 2017.

Medway, Town of. Medway Consumer Confidence Report. 2016.

Medway, Town of. Medway Source Water Assessment and Protection Report. 2002.

"NPDES Phase II Small MS4 General Permit Annual Report, April 1, 2016 – March 31, 2017." epa.gov

"Parks, Open Space and Athletic Field Master Plan Report, Town of Medway, MA." *Townofmedway.org*. Gale Associates, Inc. July 24, 2013.

"The Charles River Meadowlands Plan for Bellingham, Franklin, and Medway."

Charlesrivermeadowlands.org. Charles River Meadowlands Initiative, 10 Jan. 2017.

"Town of Medway Hazard Mitigation Plan." Metropolitan Area Planning Council. May 17, 2010.

"Water Supply & Demand Assessment in Relation to Exelon Power 'West Medway II' Project for Town of Medway, MA." *Townofmedway.org*. Kleinfelder, 5 Oct. 2015.

"Water Ban Notice." Townofmedway.org. 2017