

Open Space and Recreation Plan

Town of Rowley



2021 Update

Prepared by:

Town of Rowley Open Space Committee

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Rowley Town Center as seen from Muzzy Hill in 1902

Section 1 - Plan Summary

The Town of Rowley has a wide variety of open space across its 19 square miles of land in Essex County, Massachusetts. Some of these land designations include salt marshes, river corridors, farms, meadows, and forests. Land use and development patterns in Town are steeped in history, and the accompanying natural resources provide citizens with clean water, protection from flooding, climate resiliency, enhanced physical and mental health from aesthetic and recreational enjoyment, increased economic value, and, for some, a livelihood generated by hunting, fishing, or clamming. For years, residents in the Town of Rowley have enjoyed a rural living environment with scenic views and a plethora of open space.

However, the Town's rural character and natural resources are stressed by a number of environmental challenges, such as invasive species, sedimentation, deforestation, water pollution, and new development. Housing developments continue to expand, although the Town is working to mitigate the impact of new development through the issuance of special permits for Open Space Residential (OSRD) projects that, by law, must include permanently protected open space. In recent years, several OSRD developments have been approved, providing expanded protection of open space and increased access to passive recreation resources.

Land protection is another tool for the preservation of Town's rural character and natural resources. Land can be purchased with Town funds, state grants (i.e. Community Preservation Act, Mass Trails), partnership with land stewardship NGOs (i.e. Essex County Greenbelt Association, Massachusetts Audubon Society) or state agencies (i.e. Massachusetts Department of Conservation and Recreation), as well through the use of conservation restrictions, which allow privately-owned land to be conserved. Some recent examples of important land acquisition efforts include:

- 2014: The Town used Community Preservation Act (CPA) funds to purchase 193 acres from the Girl Scouts of the USA at 390 Wethersfield Street, abutting previously preserved Town open space. The land, now known as Dodge Reservation, protects a valuable forest and riverine ecosystem and boasts a trail network that provides ample passive recreation opportunities.
- 2018: The Town worked with the Essex County Greenbelt Association and Mehaffey Farm to grant a conservation restriction on 28.8 acres of the farm, which facilitated the development of new trails and the protection of a key parcel, while also allowing the important and historic family farm to continue its operations.
- 2018: The Town protected 5.69 acres of open space at 42 Newbury Road, adjacent to previously protected Town conservation area, through the use of a conservation restriction.

The Town, with guidance from the Conservation Commission, has also accepted land through donations and tax-title taking, to be held and managed for open space purposes. Recent examples of land acquisition include:

- 2015: The Town accepted 2 acres of forested wetland and an intermittent stream off Turcotte Memorial Drive, adding to 9 acres of previously protected land through tax-title taking.
- 2016: The Town was gifted 23 acres of important wildlife habitat at Rear Newburyport Turnpike and 340 and 344 Wethersfield Street along Bachelder Brook that abuts Dodge Reservation, donated by Ipswich Bay Glass.
- 2017: The Town was gifted 3 acres in Bachelder Meadow of Newburyport Turnpike, donated by Gateway II Realty Trust. The land is now designated as a Town conservation area.
- 2017: The Town accepted 5 acres of wetlands and forested land at 351 and 355 Wethersfield Street, abutting and including Bachelder Brook, through tax title taking and now designated as a Town conservation area.
- 2019: The Town was gifted 23.9 acres of forested land off Kathleen Circle, which abuts Hunsley Hills, donated by Gateway II Realty Trust.
- 2019: The Town accepted 17.5 acres of forested land off Saunders Lane.
- 2020: The Town accepted 10 acres of forested land containing vernal pool habitat behind Hart's Way, which provides the public with access to previously protected conservation land not formerly able to be accessed by the public.

At this time, the Town is not actively pursuing the purchase of additional open space. Rather, the focus will be on maintaining existing open space properties, capitalizing on those properties' potential for active and passive recreational use, and using good judgement to leverage opportunities for land acquisition and protection as they become available, as presented by Town committees and land stewardship NGOs.

Another way the Town seeks to protect its natural resources and rural character through community awareness and education. The Open Space Committee has hosted a number of community events including trail maintenance, boardwalk construction, guided hikes, and Earth Day events. The Committee has also produced a brochure of open space properties in Town and partnered with the Town library on "Outdoor Backpacks" that facilitate outdoor enjoyment and exploration by resident youths. These outreach activities have given community members the opportunity to familiarize themselves with Town-owned properties and reinforce public perception about the importance of their natural environment.

Lastly, the Town has developed an Open Space and Recreation Plan (OSRP) to gather public input and set community-wide priorities for the conservation and protection of open space in Town. The OSRP has been influenced by ecological and historical research, consultation with local stakeholders and decision-making groups, and public input. The OSRP takes inventory of Rowley's natural resources and recreational facilities, considers current and potential environmental challenges, analyzes public open space and recreation needs; and provides an

implementation plan for the continued protection and sustainable use of the Town's natural resources and open spaces.

The OSRP is based on the four broad goals that were affirmed by Rowley citizens in a public survey. The goals are to:

1. Preserve and protect the Town's water resources
2. Preserve and protect the Town's natural resources and rural character
3. Provide diverse recreational opportunities for residents of all ages and abilities
4. Educate residents about the availability, use, and protection of the Town's open space and recreation resources

The achievement of these goals will require support by a variety of local entities, including Town boards and commissions, schools, non-profit organizations, and volunteers. Cooperation and coordination among these entities is essential to the successful implementation of the Plan, which will be an ongoing and evolving process with continued public input under the leadership of the Open Space Committee and other Town boards.



Eagle House Hotel, Main Street, Rowley, 1920

Section 2 – Introduction

2A Statement of Purpose

The purpose of this Open Space and Recreation Plan (OSRP) is twofold. First, the OSRP uses ecological data, local stakeholder knowledge, and public input to set community-wide priorities for the conservation and protection of open space in Town. Second, the OSRP demonstrates a commitment by the Town of Rowley to maintain and preserve its natural resources and improve public awareness and access to open space properties for recreational use and enjoyment. As an added benefit, the OSRP provides the Town with eligibility for State-funded conservation programs.

Last updated in 2014, this iteration of the OSRP represents a review of Town accomplishments since the 2014 OSRP as well as to provide a roadmap for the future. This revised and updated plan provides a comprehensive inventory of the Town's open space and natural resources, both protected and unprotected, and includes a series of recommended actions to help the Town preserve these resources for future generations. The OSRP is an helpful tool for guiding the planning process in Rowley, including prioritization of conservation efforts and evaluation of further development.

2B Planning Process

Over the past several decades the Town has had periods with and without an active Open Space Committee. The Open Space Committee comprises five members appointed by the Conservation Commission, including one liaison from the Conservation Commission and one non-voting member who is the Town's Conservation Agent. The Open Space Committee does not purchase land, regulate land use, or grant conservation restrictions, but it can play a critical role in laying the groundwork to guide and support these activities as they are carried out by Town government or local stakeholders. The Open Space Committee also organizes volunteer efforts to build and maintain trails and increase awareness of open spaces in Town. Lastly, the Open Space Committee is tasked with upkeep of the OSRP.

Most recently, in the summer of 2020, the Open Space Committee began a comprehensive update to the 2014 OSRP. To start, the Open Space Committee consulted relevant Town committees and boards, including the Board of Selectmen, Conservation Commission, Parks and Recreation, Planning Board, Assessor's Office, Agricultural Commission, and Water Department. The Open Space Committee then updated local population statistics and development trends to buttress regional context, reviewed and revised the Town inventory of open space resources, and solicited public opinion through an online survey. The information that was gleaned through these revisions and updates supported a discussion of overall goals and vision of the OSRP and future of the Town's natural resources and rural character.

Once completed, a draft copy of the 2021 OSRP was placed at Town Hall, the Public Library, and published on the Town of Rowley website for public review. Copies were also distributed to the Rowley Planning Board, the Conservation Commission, the Board of Selectmen, and the Merrimack Valley Planning Commission.

2C Public Participation

Late in 2020, all Rowley residents received an invitation to complete an online survey regarding Town open space and recreation. The invitation was distributed to the community via social media and post mail (a leaflet in the Town electric bill). For individuals not able or wanting to complete the survey online, a paper copy was available upon request. Access to the online survey was closed in February 2021. A total of 307 surveys were completed: six were submitted on paper and 301 were submitted electronically. Prior to making the survey available to the public, the Parks and Recreation Committee was given the opportunity for comments.

The Open Space Committee also conducted an open meeting designed to provide the public with the overarching goals and objectives of the 2021 OSRP. The notice of public meeting was posted at Town Hall and advertised on Rowley Community Media (RCM) by way of a community bulletin as well as two local social media groups (Rowley Talks and Friends of Rowley Open Space). After a brief presentation, the public were given the opportunity to raise questions, concerns, and comments about the Town's Open Space and Recreation Plan. Written comments were also accepted via post mail or email to the Conservation Commission. These questions, concerns, and comments were taken into consideration and incorporated into Section 7: Summary of Needs.



View of the Captain Johnson House from Prospect Hill, 1900

Section 3 - Community Setting

The Community Setting section provides the background information that is needed to understand Rowley's open space and recreational needs. This section includes information about the Town's regional context, historical background, demographics and population characteristics, and growth and development patterns.

3A Regional Context

Rowley is located 32 miles north of Boston on the "North Shore" of Massachusetts, and is bordered by Ipswich, Boxford, Georgetown and Newbury (see Figure 3.1). The Town consists of 19 square miles and is characterized by gently rolling uplands and expansive salt marsh. The Mill River and the Muddy Creek form much of the Town's northern border. The eastern section of the Town is bordered by the Atlantic Ocean and includes sections of the Parker River National Wildlife Refuge and a section of Plum Island. The Rowley River forms the Town's southeastern border.

Interstate 95 passes through the western end of Town, although its nearest exits lie in the neighboring towns of Georgetown and Boxford. US Route 1 and MA Route 1A run north-south through the central and eastern parts of Town, and are connected by MA Route 133, which passes east-west through Town. Access to these highways, along with a station on the Newburyport/Rockport Line of the MBTA Commuter Rail which provides service between Newburyport and Boston's North Station, have resulted in Rowley emerging as a bedroom community for residents who work in Boston and its suburbs. Available developable land, and excellent highway and commuter rail access to Boston have attracted substantial residential development over the past few decades.

Rowley shares several important natural resources with neighboring towns and regions. These resources, including marshes, watersheds, wildlife refuges, state forests, and a national heritage site, require shared oversight and management to ensure their preservation and limit environmental degradation, so their mention and consideration are critical to successful open space and recreation planning. Some of the shared natural resources in Rowley include:

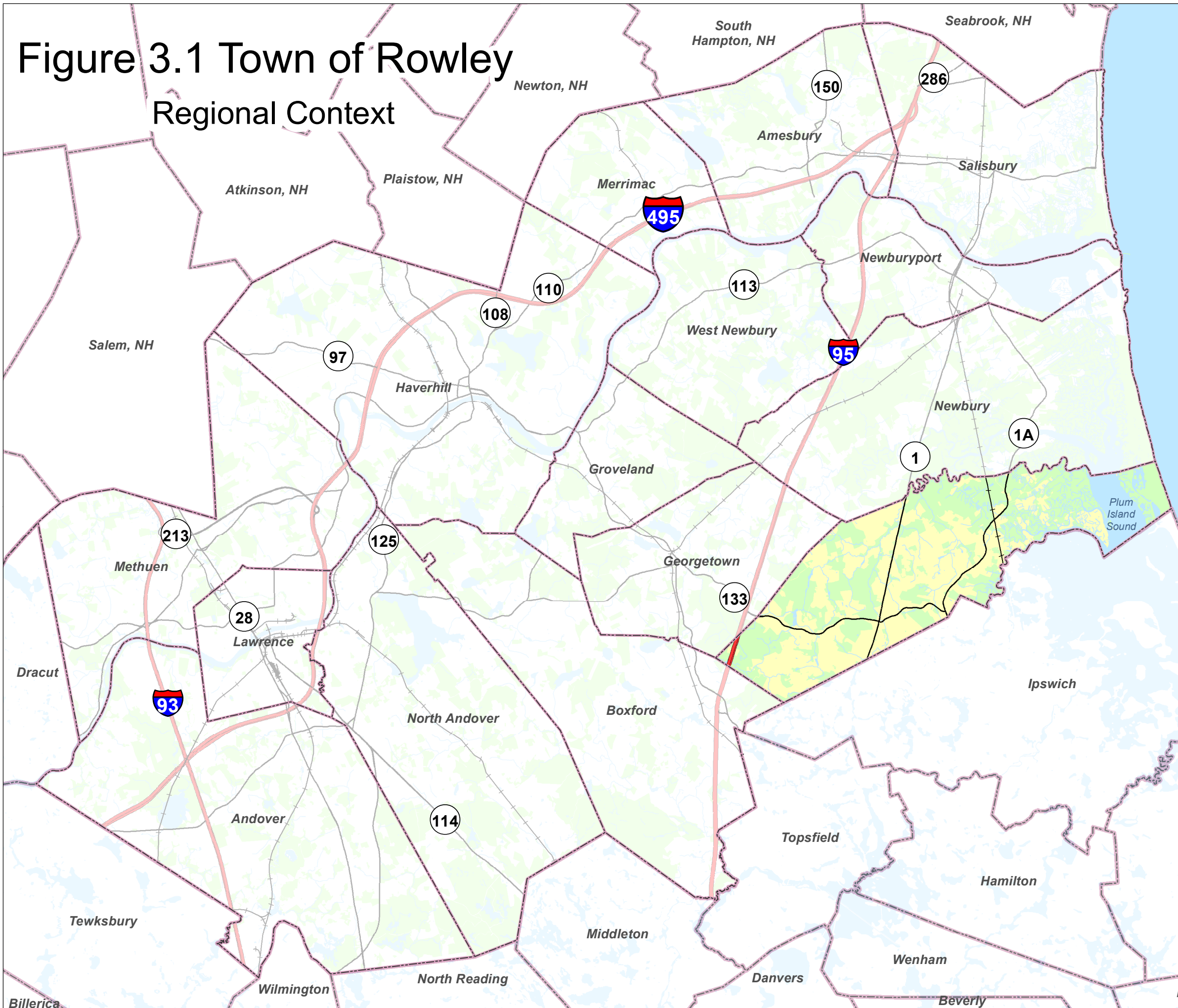
- **Essex National Heritage Area:** In 1996, Congress established the Essex National Heritage Area (ENHA), 500 square miles of northeastern Massachusetts that encompasses 34 cities and towns. As one of 49 National Heritage Areas in the country, the Essex National Heritage Area provides important regional recognition that is valuable from both economic and cultural perspectives. The ENHA website states that the area hosts 2.7 visitors annually from over 30 countries, and is most well-known for its annual Trails & Sails event, which in 2021 is entering its 20th year.
- **Parker River and Ipswich River Watersheds:** The Town is part of two coastal river drainage areas that flow into the Plum Island Sound. The Parker River watershed covers approximately 82 square miles across 9 communities in Essex County. The Ipswich River watershed is 155 square miles and encompasses all or part of 21 communities. It provides drinking water to over 350,000 people and thousands of businesses within 14 communities in northeastern Massachusetts. The Town comprises only a small

percentage of the Ipswich River watershed via segments of Rowley River and Bachelder Brook.

- **The Great Marsh:** The salt marshes of Rowley host a section of The Great Marsh, the largest salt marsh in New England. Its 20,000 acres (just over 30 square miles) stretches from Cape Ann to New Hampshire, and is a critical habitat for plants and animals, an important source of climate resiliency for the region, as well as a valuable environmental, economic, historic, and recreational resource for Rowley, the North Shore, and the Commonwealth of Massachusetts. In 2000, The Great Marsh Coalition was formed to study, protect, and increase public awareness of this shared coastal resource.
- **Parker River National Wildlife Refuge:** Part of the Great Marsh, the Refuge comprises 4,700 acres (just over 7 square miles) across Rowley, Newbury and Ipswich. The Refuge was established in 1941 to provide feeding, resting, and nesting habitat for migratory birds. It is on the flyway for several migratory waterfowl and is an important nesting area for numerous species, including the Piping Plover. It provides diverse habitats including sandy beach and dune, cranberry bog, maritime forest and shrubland, and freshwater marsh. Nature enthusiasts from around the country, particularly bird watchers, visit the Refuge. The Refuge is designated by the State of Massachusetts as an Area of Critical Environmental Concern (ACEC) due to its critical environmental resources.
- **Bay Circuit Trail:** Trails through Cleveland Farms State Forest (which spans Boxford, Ipswich, and Rowley), Prospect Hill State Forest (which spans Rowley and Ipswich) and the Georgetown-Rowley State Forest (which spans Rowley and Georgetown) are part of the Bay Circuit Trail. The 200 mile-long trail network links Rowley with 50 other Massachusetts communities from Newburyport to Duxbury. In 2020, the Town received Community Preservation Act (CPA) and Mass Trails Grant funding to further connect the Town to this trail network by providing access from accessible parking at Pingree Farm Conservation Area's west parcel to the Georgetown-Rowley State Forest through the construction of a boardwalk over the Mill River. The project greatly enhanced the Town open space property and fulfilled the Town of Rowley Land Use and Management Plan endorsed in 2002.

Due to the large number of shared natural resources, it is important for the Town to collaborate with non-government organizations (NGOs) that work to protect and preserve the flora, fauna, and waters that span the region. Some of these important regional NGOs include: The Essex County Greenbelt Association, Great Marsh Coalition, The Ipswich River Watershed Association, Massachusetts Audubon Society, and the Parker River Clean Water Association.

Figure 3.1 Town of Rowley Regional Context



Legend

- Open Space
- Town Boundary
- Hydrographic Features
- Railroad
- Interstate
- Major Road

1 inch = 10,500 feet
 Feet
 0 5,250 10,500

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3B History of the Community

The Town of Rowley is one of the oldest towns in Massachusetts. It was first mentioned in the Massachusetts Bay Colony records on March 13, 1638, at which time it was known as “Mr. Ezechi Rogers Plantation.” The Town was incorporated in 1639 as the fifth town in Essex County, the sixteenth in the Bay Colony, and Town borders were fluid during the following 145 years. The middle fifth of Plum Island was added to the Town in 1649, after which Rowley was bounded northerly by Newbury, easterly by the Atlantic Ocean, southerly by Ipswich and Salem, and westerly by Andover and the Merrimack River. In subsequent years, several towns that had been part of Rowley were set off from the original King’s grants, including Bradford (now part of Haverhill), Boxford, parts of Middleton, Georgetown, and Groveland. In 1785, the Bradstreet and Cross farms, originally part of the Egypt River Grants in Ipswich, were annexed to Rowley.

The Town of Rowley received its name from a parish in the East Riding of Yorkshire in England named Rowley. The early settlers were primarily Puritans from Yorkshire, England, led to Rowley by dissenting clergyman Ezekiel Rogers. Mr. Rogers commenced the settlement in April 1639 with sixty families, and the Town was incorporated on the 4th of September of that year. Mr. Rogers was installed pastor on the 3rd of December 1639. The 1963 Town Plan captured the essence of colonial Rowley in this passage:

“The town developed into a small, self-sufficient community and remained so for many years. The town was initially agricultural. The soil was well-adapted to the growth of fruit trees as well as vegetable and nursery crops. Because its early settlers were weavers and clothiers, [the Town] has the distinction of having the first fulling mill in the new world.”

One of the first stone arch bridges built in America still stands near the fulling mill. Over time, the Town developed a manufacturing base producing products such as shoes, boots, heels, flour, lumber, wagons and wheels. And, even though the Town lacks a harbor, shipbuilding was also a thriving industry in Rowley. The largest ship was the Country’s Wonder, built on Rowley Common in 1814. The ship weighed close to 100 tons and 150 yoke of oxen were required to move it the 1 ½ miles to the river.

Until the middle of the 20th century, Rowley remained a predominantly self-sufficient agricultural community. Since that time, the Interstate highway system has been built and commuter rail service has been developed, transforming Rowley into a bedroom community for commuters to Boston and its suburbs. However, several working farms remain, including Herrick Dairy Farm, which also leases its land for other crops, as well as Chickadee Hill Farm and Mehaffey Farm, which both provide locally grown fruits and vegetables. The Town also boasts several tree farms, horse farms, and a nursery. Clams and salt marsh hay continue to be cash crops.

The Town’s long and rich history means that much of the land in the community has historic importance. In fact, each of the parcels protected as open space by the Town since the adoption of the 1998 Open Space and Recreation Plan have been historically important. The most prominent, the 119-acre Bradstreet Farm, was one of the three remaining King’s Grant properties

in Rowley. In 2000, the Town and Mass Audubon purchased a conservation restriction on the 22- acre Minister’s Wood Lot, the original wood lot used by Ezekiel Rogers, the founder of Rowley. Hunsley Hills served as common pastures for livestock grazing during Rowley’s earliest years. The two Pingree Farm parcels incorporate the site of the historic Morgan farm, which operated in Rowley for several generations. Pingree Farm Road, which forms the border of one of these properties, is the original public way between Georgetown and Rowley, and the Herrick dairy farm is one of the last operating dairy farms in the region. No doubt, the history of the Town will continue to play an important role in land protection initiatives in Rowley.

3C Population Characteristics

The Town of Rowley has a population of 6,161, as estimated by the 2020 Federal Census, and covers an area of 19.03 square miles, resulting in a population density of 324 persons per square mile. The 2020 Merrimack Valley Regional Transportation Plan states that Rowley and the neighboring towns of Newbury and West Newbury are the least densely settled communities in the Merrimack Valley region.

Table 3.1 shows population trends for Rowley for each decade from 1930 through 2020. The data confirm that Rowley experienced rapid growth from 1980 to 2000, where the population grew 15-27% each decade, and moderate growth through 2020, where the population growth hovered around 6%. This increase in population density has noticeably transformed Rowley’s traditional rural environment into a much more developed community of more suburban character. As the population grows, demand on current recreation facilities and open spaces will continue to increase.

Table 3.1: Population of Rowley

Year	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020
Pop.	1,356	1,533	1,768	2,873	3,040	3,867	4,452	5,500	5,856	6,161*
% Inc.	---	13.1	15.3	62.5	5.8	27.2	15.1	23.5	6.5	5.2

Source: US Census

*Note: Town of Rowley data from January 15, 2020 states a Town population of 6,338.

Table 3.2 displays the Town’s population by age cohort for the years 1970, 1980, 1990, 2000 , 2010, and 2019. Growth of elementary school aged children continues to slow, despite observations of increased development, which one might infer would bring in young families. Stagnant growth in younger children may ease demand on active recreation facilities. Conversely, the population of those over the age of 65 has increased substantially. This age cohort often demands more opportunities for passive recreation.

According to the 2010 US Census, Rowley residents had a median household income of \$74,911, which was 16 percent higher than the state average. The 2019 American Community Survey (Table S1901) reports a median household income has risen to \$115,909, significantly

higher than the state average of \$68,563 as reported in the 2017 Massachusetts SCORP. According to US Census data, 4.3 percent of the population lived below the poverty level in 2018, compared to 10 percent of the Commonwealth’s population.

Table 3.2: Population by Age Group in Rowley from 1970-2019

	<5 years	5-14 years	15-24 years	25-44 years	45-64 years	>65 years
1970	9.4%	23.5%	12.9%	26.1%	19.1%	9.0%
1980	7.0%	15.2%	18.3%	33.4%	16.7%	9.1%
1990	9.4%	14.1%	11.6%	38.6%	16.9%	9.3%
2000	7.1%	16.7%	10.0%	32.5%	24.3%	9.4%
2010	5.6%	14.1%	10.9%	22.2%	35.6%	11.5%
2019*	5.3%	12.0%	12.0%	19.9%	33.8%	16.9%
Net change 2010-2019	-5.6%	-14.9%	+10.1%	-10.4%	-5.1%	+47.0%

Source: 1970-2010 - US Census; 2019 - American Community Survey

In 2017 there were 2,871 locally-based jobs in Rowley¹, an increase of 46 percent from 2000. The number of employed Rowley residents was 3,367 in 2017². In 2018, there were 266 firms in Rowley that reported to the Massachusetts Division of Employment Security.³ A mix of service, retail, and industrial businesses reflects a change in the business composition since the 1998 Open Space Plan, when few industrial businesses were located in the town. The new business mix is a result of zoning changes along Route 1, which encouraged significant industrial and commercial development resulting in the loss of substantial forested lands.

¹ [2020 Merrimack Valley Regional Transportation Plan](#)

² Massachusetts Executive Office of Labor and Workforce Development

³ Personal communication with Karen Summit, Rowley Collector and Treasurer

3D Growth and Development Patterns

3D1 Patterns and Trends

Rowley's development patterns can be traced back to the Town's founding in 1639. At that time, Rowley encompassed a larger land area, including what today are the towns of Boxford, Georgetown, Groveland, Bradford, and part of Middleton. Agriculture was the primary industry in the Town and large farms dominated the landscape. Of particular note was the expansive Bradstreet Farm located along what is now Main Street overlooking the salt marsh. In a major success for land protection, the town acquired this parcel in 2008. Over the centuries, other farms have included those owned by the Todd, Pikul, Herrick, Mehaffey, and Savage families.

During Colonial times, and indeed until the 1980s, the majority of residential development was clustered in the vicinity of the Town center along Main, Bradford, Wethersfield, and Central Streets. During that era, the fulling mill on Glen Street on the north side of town was important not only to Rowley and the surrounding region, but also to the rest of the original thirteen colonies, as it provided cloth to residents. The Dodge Saw Mill (now the Herrick Mill), one of the oldest sawmills in the region, was a valuable asset for the Town.

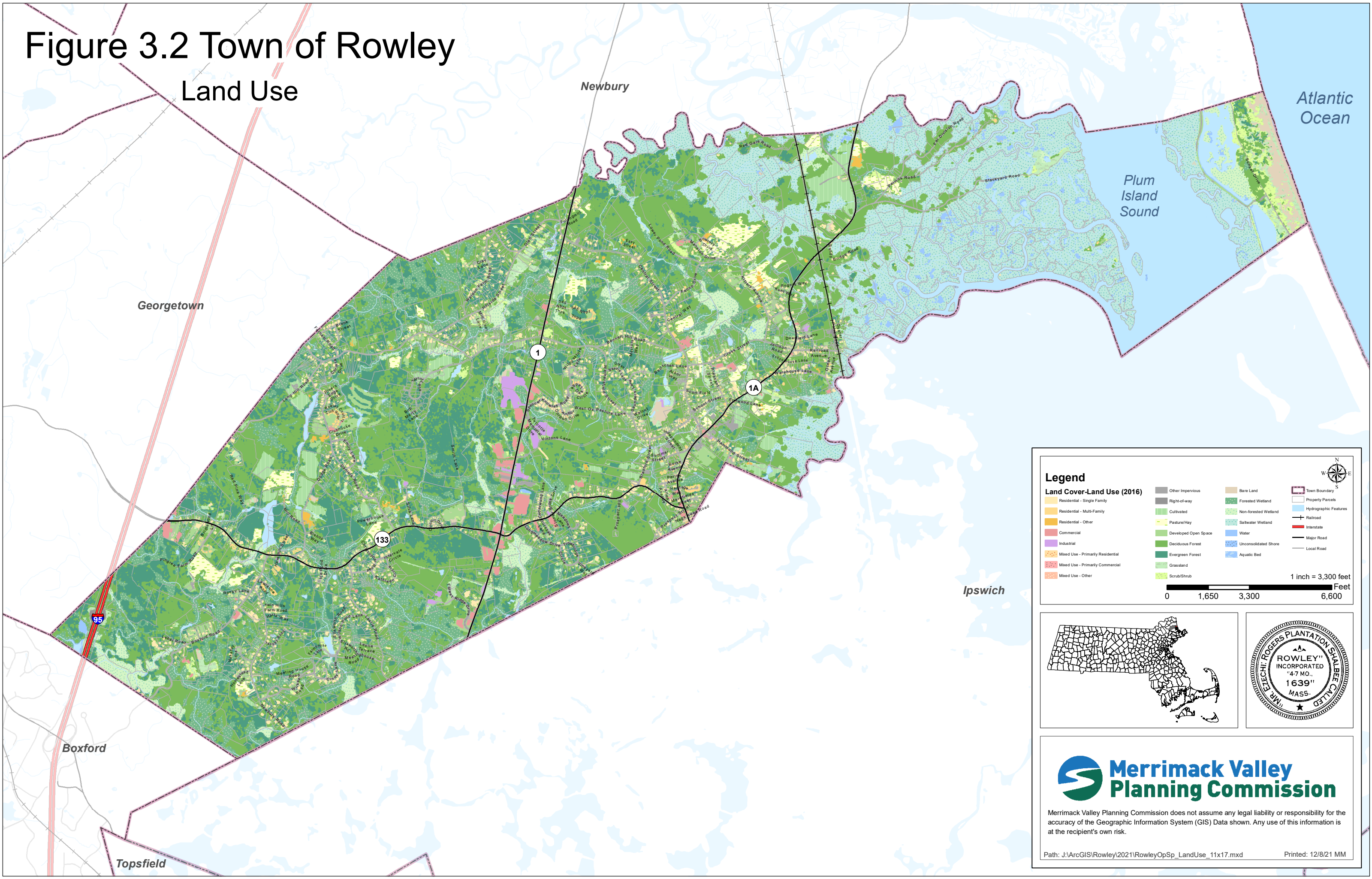
Rowley's 1963 Master Plan reported that due to wetlands and other land characteristics, only fifteen percent of the Town was buildable. However, with modern technological advances in construction practices, and revisions to Title 5 requirements, many areas previously unsuitable for residential and/or commercial development are now buildable. Accordingly, Rowley has experienced a substantial amount of development within areas that were considered to be unbuildable as recently as thirty years ago. Figure 3.2 shows a current land use map for the Town.

3D2 Infrastructure

As a result of improved regional transportation, a scarcity of developable land, and escalating prices for existing sites in Boston and the inner-suburbs, development has spread outward to communities like Rowley. Figure 3.3 shows development trends in the Town from 1999-2012. Table 3.3 shows trends in housing from 2000 through 2019. While there has not been much change regarding the type of occupancy (i.e. owned, rented, or vacant), the total number of housing units has risen from 2,004 in 2000 to 2,253 in 2010 and 2,361 in 2019. This represents growth of 4.8% over the past decade. This demonstrates that the Town continues to attract residential development.

Figure 3.2 Town of Rowley

Land Use



Legend

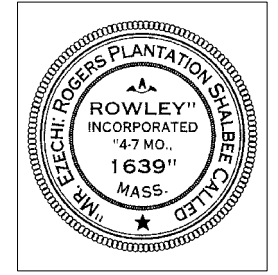
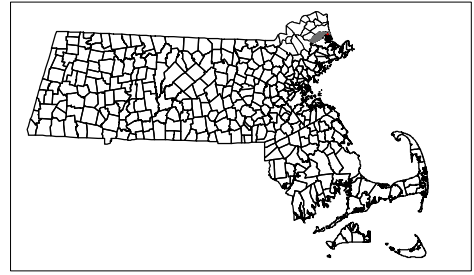
Land Cover-Land Use (2016)

Residential - Single Family	Other Impervious	Forested Wetland
Residential - Multi-Family	Right-of-way	Non-forested Wetland
Residential - Other	Pasture/Hay	Saltwater Wetland
Commercial	Developed Open Space	Water
Industrial	Deciduous Forest	Unconsolidated Shore
Mixed Use - Primarily Residential	Evergreen Forest	Aquatic Bed
Mixed Use - Primarily Commercial	Grassland	
Mixed Use - Other	Scrub/Shrub	

Bare Land
 Hydrographic Features
 Railroad
 Interstate
 Major Road
 Local Road

1 inch = 3,300 feet

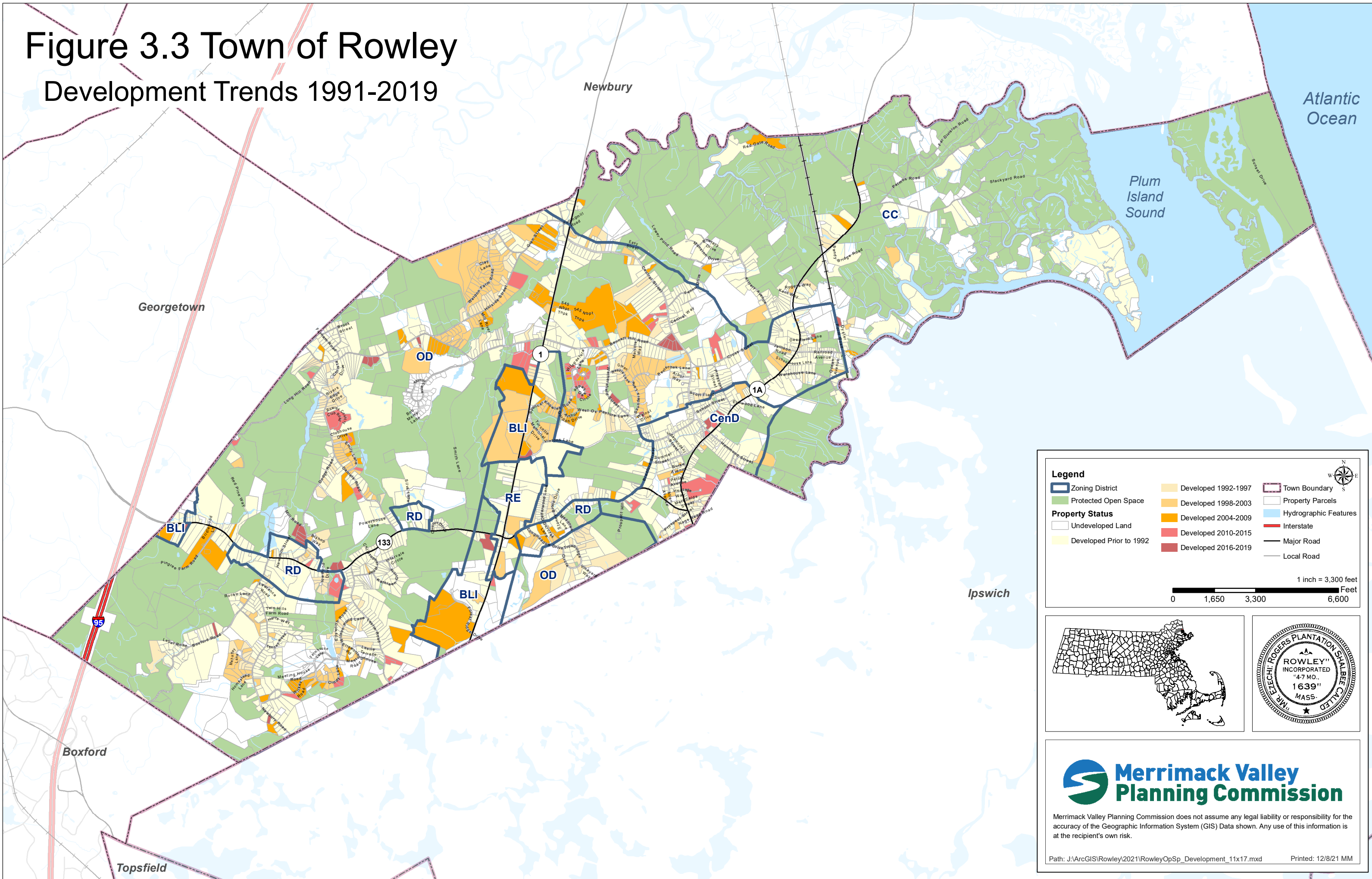
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Figure 3.3 Town of Rowley Development Trends 1991-2019

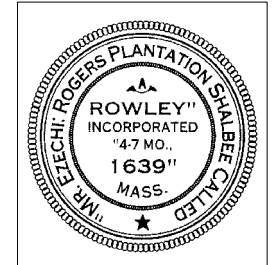
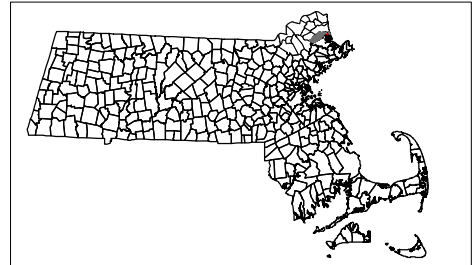


Legend

- Zoning District (Blue outline)
- Protected Open Space (Green)
- Property Status:
 - Undeveloped Land (White)
 - Developed Prior to 1992 (Yellow)
 - Developed 1992-1997 (Light Orange)
 - Developed 1998-2003 (Orange)
 - Developed 2004-2009 (Dark Orange)
 - Developed 2010-2015 (Red)
 - Developed 2016-2019 (Dark Red)
- Town Boundary (Red dashed line)
- Property Parcels (Thin black lines)
- Hydrographic Features (Light blue)
- Interstate (Thick red line)
- Major Road (Black line with shield)
- Local Road (Thin black line)

1 inch = 3,300 feet

0 1,650 3,300 6,600 Feet



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Table 3.3: Housing Units and Tenure, 2000-2019

	Occupied			Vacant
	Owner Occupied	Renter Occupied	Total Occupied	
2000	75.2%	22.5%	97.7%	2.3%
2010	77.8%	17.9%	95.7%	4.3%
2019	76.0%	17.5%	93.6%	6.4%
Net change 2010-2019	-2.3%	-2.2%	-2.2%	+48.8%

Source: 2000 and 2010 - US Census; 2019 - American Community Survey

A closer examination of recent growth reveals several trends that are important to note when planning for future growth. Specifically:

- Development is spread throughout the central area of Town on both sides of Newburyport Turnpike (Route 1). Development is sparse in the northeastern part of the Town due to the saltwater wetlands and floodplains in the area.
- Much of the residential development in the 1990s consisted of single-lot frontage development along existing roadsides. This development is also known as “Approval Not Required” (ANR) development because it does not require Planning Board approval. However, as the supply of potential ANR development sites diminished during the 1990s, new residential development has occurred in recent years in the form of OSRD subdivisions.
- During the past three decades, the Town has seen new industrial development and redevelopment of existing properties such as the Ipswich Bay Glass Company, Mydata and Porter International. Route 1 continues to see commercial and industrial development in areas zoned for such uses. Zoning has been amended over the past decade to accommodate such development while protecting adjacent forest and wetlands.

Transportation System

Rowley’s roadway system is characterized by a system of north-south and east-west highways. Route 1 bisects the community in a north-south direction, and provides direct access to Boston and Portsmouth, NH. Route 1A provides north-south access directly through Rowley Town Center. Route 133 provides east-west access through Town, and directly connects to Interstate 95 just over the Georgetown line. Much of Rowley’s recent growth can be attributed to this convenient access to I-95. Because of increased traffic on Route 133 in Rowley in recent years, the State widened and upgraded this road in 1997 and re-paved it in 2019.

In 1999, the Massachusetts Bay Transportation Authority reinstated commuter rail service between Rowley and Boston’s North Station. The commuter rail station is located on Railroad Avenue at the site of the historic train station (although the historic building is no longer standing). The station has parking to accommodate 283 vehicles and has bicycle racks for a handful of bikes. On a typical weekday morning in 2018 there was an average of 85 people boarding southbound trains.⁴ The train service helps Rowley residents who commute to jobs in Boston.

Fixed-route bus service to surrounding communities is not available in Rowley. A private carrier used to provide commuter service to Boston but was not able to retain enough ridership to continue service. According to the 2020 Merrimack Valley Regional Transportation Plan, towns with population densities of less than 350 persons per square mile are difficult to serve by traditional transit. Transportation services for elderly and handicapped residents are available by reservation through the Council on Aging.

Domestic and international air travel is available from Logan Airport, located 32 miles south of Rowley in Boston, and accessible via bus service from Newburyport. Manchester Airport in Manchester, NH provides an alternative to Logan Airport for Rowley travelers. The Plum Island Airport in Newbury, MA is a general aviation facility that only accommodates private aircraft.

There are three boat-mooring facilities controlled by the town, including 10 moorings along the Rowley River, 30 moorings at Hoog Island on outer Rowley River, and 15 moorings at The Knobs on the Parker River. Town Landing, located on Warehouse Lane, provides access to the Rowley River, Plum Island Sound, and the Atlantic Ocean for Rowley boaters. Perley’s Marina offers boat-mooring facilities for recreational boaters. There are 131 slips at this marina, which in 2021 was stated by the Rowley Harbor Master to adequately meet current demand with the 248 launch permits issued to Rowley residents.

Sidewalks can be used by pedestrians along Route 1A, stretching from Haverhill Street to the south and Railroad Avenue to the north. The sidewalk network spreads around the Town Common and also continues west along Wethersfield Street and Central Street. Some of the residential developments have sidewalks throughout the neighborhood. Through there are no designated bicycle lanes in Town, bicyclists are commonly seen traversing sideroads as well as Route 1A, which is a designated Scenic Byway. The commuter rail station on Railroad Avenue has seven bicycle parking spots.

The Merrimack Valley Regional Transportation Plan has a series of objectives to expand a multi-modal network across the region, but acknowledges that towns with population densities of less than 350 persons per square mile are difficult to serve by traditional transit. According to Table 8.7 (“Complete Streets Components of Proposed Projects”), Rowley has a funded project to reconstruct Central Street and Glen Street from Route 1A to the Mill River. This includes new sidewalks and bicycle accommodation. Unfunded projects that have been proposed include new

⁴ MBTA, *Ridership and Service Statistics, 2018*

sidewalks along Haverhill Street between Route 1 and Route 1A, as well as from the Georgetown Line to Route 1.

Water Supply System

Rowley's municipal water department now supplies nearly 1,800 customers, or approximately 90 percent of the Town. The remaining 10 percent of the population is serviced by private wells. The water for municipal wells and private wells originates in the same aquifer. Approximately 85 percent of the public water service connections are for residential customers, ten percent are for commercial businesses, and the remaining five percent are for industrial uses. The water system was constructed in 1948, and the delivery system currently consists of approximately 43 miles of water lines. The delivery system is aging and in need of replacement. The Water Department will be working with an engineering firm to determine a capital water main replacement program.

Table 3.4 describes Rowley's system of wells, also shown on Figure 4.2 in Section 4. Water currently is supplied by three active wells: Wells 2, 3, and 5. Water from Wells 3 and 5 are pumped to the Water Treatment plant for processing. The water then flows to the transmission water mains, which aid in delivering water to customers. The water from Well 2 is not filtered through the treatment plant and is treated chemically on site. It then flows to the transmission water mains for delivery to customers. The Water Department Administrative Assistant noted that this information is accurate as of August 2021.

Well 5, the most recent well field, was developed in the Pingree Farm Road area. In 2014 it was expected that this well should enable the Town to satisfy near-term additional demand from new, approved and expected single-family development. However, demand is expected to further increase due to redevelopment and expansion of the commercial districts along Routes 1 and 133, and the continued conversion of undeveloped land to residential housing. We expect that the existing water supply is considered inadequate to meet Rowley's long-term needs.

Rowley also has important groundwater aquifers, which are the Town's sole supply of drinking water. To date, four of these sources have been developed for municipal use, of which three remain active. The Water Department received state certification of the Zone II areas for each wellfield. The Zone II designation formally establishes the aquifer recharge areas for the wells, and, in conjunction with the Municipal Water Supply Protection District, limits the types of uses allowed within the aquifer recharge area. Figure 4.2 (in a later section) shows the location of aquifer recharge areas (located within the boundaries of the Municipal Water Supply Protection District), wetlands, and wellfields.

In 2010, the Massachusetts Department of Environmental Protection (DEP) issued an environmental consent order to the Town to build a new water treatment plant after high levels of manganese were found in samples from two of the Town wells. The new treatment plant, built near Well 5, was completed in August 2014.

Table 3.4: Location, Type, and Yield of Wells in Rowley

Designation	Location	Type	GDP
Well #1 (Abandoned due to bacteria and presence of sand)	Northeast Prospect Hill (near Routes 1A & 133)	Tubular Field	n/a
Well #2	Haverhill Street	Gravel Packed	600,000
Well #3	Boxford Road	Gravel Packed	600,000
Well #4 (Abandoned)	Prospect Hill (near Kent Corner)	Gravel Packed	n/a
Well #5	Pingree Farm Road	Gravel Packed	620,000

Source: S. Miller, Haley and Ward Engineers, Personal Communication (2016 plan research)

The Town Water Department and its engineering firm will have to develop alternative water management strategies and search for new water sources to ensure that the Town can meet its own drinking water needs over the long-term. In addition, water storage capacity is an issue. Currently, the town has only 65 percent of the recommended water storage capacity. Additional storage capacity is needed for peak demand periods and to ensure an adequate supply for fire suppression. To address this, the Town reserved four acres of the Hunsley Hills land for a future water tower. As additional open space is acquired, areas that have been identified as potential well and storage tank sites should be considered a priority.

Sewer Service

Rowley has no municipal sewer system and no plans to construct one. All homes and businesses are served by on-site septic systems maintained by the property owners, and local haulers transport septage to disposal facilities in other towns. The Department of Environmental Protection regulations require that all new septic systems meet Title 5 requirements. In addition, when property owners complete remodeling projects that affect a septic system, and when property ownership is transferred, the septic regulations require that the system be brought into compliance with Title 5. To a certain extent, Title 5 requirements help control the location and amount of new development.

Some towns in the Commonwealth have been forced to construct municipal sewer systems due to the number of failing septic systems. Currently, Rowley does not face this issue. If the Town did install a sewer system in the future, many parcels that are undevelopable because they don't meet Title 5 requirements would become developable. Therefore, the Town should continue to take advantage of opportunities such as shared and innovative systems that will allow landowners to bring their systems into compliance to avoid mandatory sewerage and the associated increase in development.

3D3 Long-term Development Patterns

Land use and development in Rowley is governed by the Protective Zoning Bylaw, first adopted in March of 1960, and last revised in June of 2020. The bylaw identifies ten land use districts, which are described in Table 3.5 and shown on Figure 3.4.

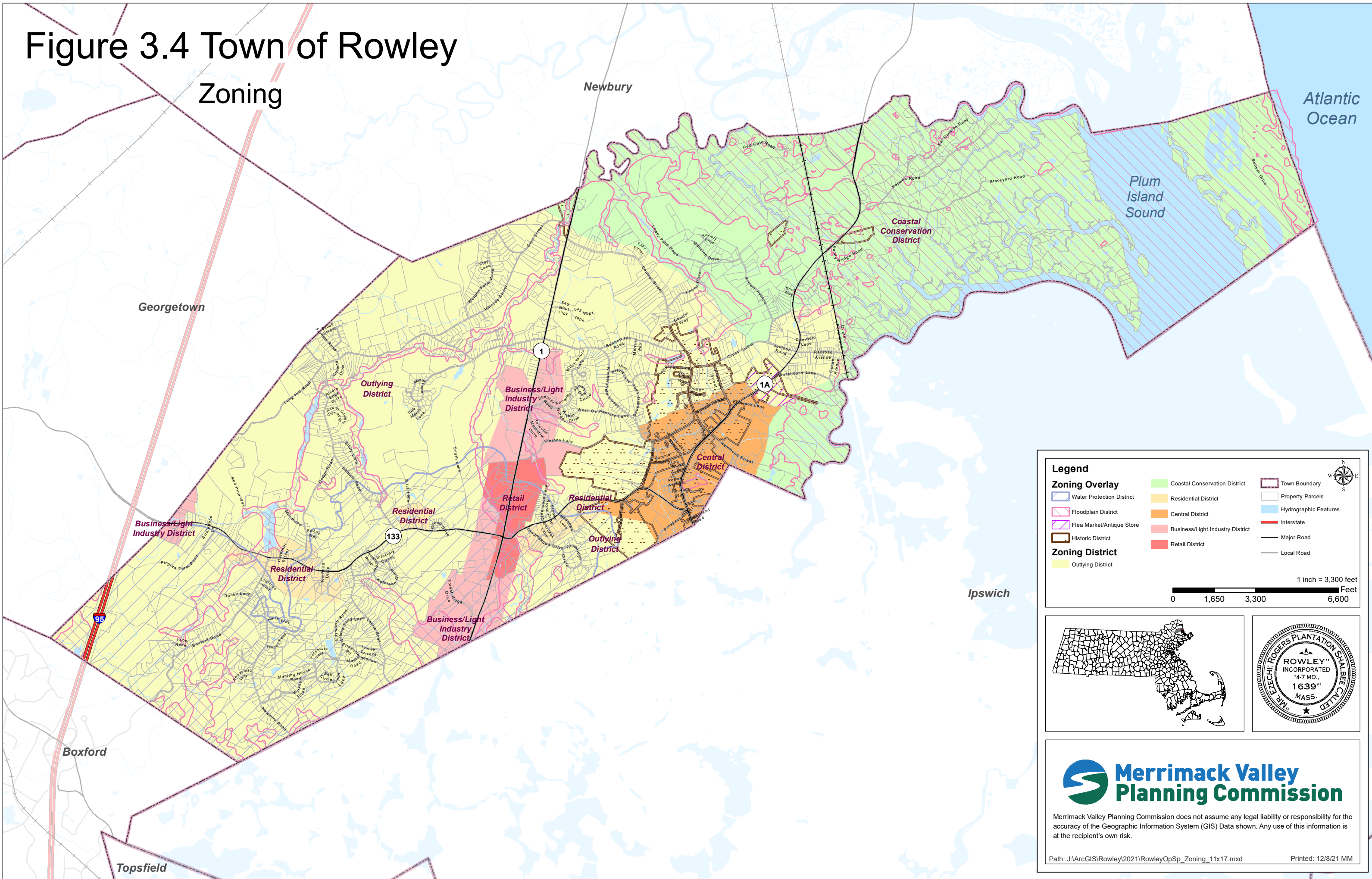
The Floodplain District, Municipal Water Supply Protection District, and the Wetlands Protection Bylaw provide a basic framework, including required setbacks, that help to protect the Town's water resources and drinking water supply from the negative effects of development. The Historic District Bylaw, which was adopted in 1988, applies to land in the historic Town Center and in the immediate vicinity of Glen Mills. The Historic District Bylaw provides renovation and improvement guidelines for Historic District properties, and was designed to ensure that the historic character of these properties is maintained. The Bylaw helps to ensure that development is respectful of the rural and natural environment, but does not necessarily provide permanent protection of the Town's natural resources and rural character.

Table 3.5: Rowley Land Use Districts

Central District	Encompasses the historic village area of the Town and provides for business, semi-public, and government uses normally found in a Town Center.
Residential District	Encompasses the residential areas surrounding the Town Center.
Outlying District	Areas of low-density residential, recreation, conservation, agricultural, and similar uses compatible with a rural area.
Coastal Conservation District	Areas of low-density residential, recreation, conservation, agricultural, and similar uses compatible with a salt marsh ecosystem and adjacent upland.
Retail District	Areas for retail business which provide goods and services primarily for consumers arriving by automobile.
Business/Light Industry District	Areas for office and professional buildings and for assembly and light manufacturing uses consistent with the Town's suburban character.

<p>Floodplain District</p>	<p>Includes (1) all areas below fifteen feet above the mean sea level, based on USGS Maps, bordering salt water or salt marsh, or adjacent to the Parker River, the Mill River, the Rowley River, and the Mud Creek; (2) all areas below the elevation of ten feet above the line following the lowest part of the stream bed or within 100 feet of the following: the lowest part of the stream bed of a named brook, stream or river or the high water line of a pond or lake as shown on USGS Map of Georgetown, Ipswich, Newburyport East and Newburyport West Sections; and (3) all areas within the restrictive line established by Mass. DNR for enforcement of Chapter 131 of the General Laws. The district overlays other land use districts in these areas.</p>
<p>Municipal Water Protection District</p>	<p>An overlay district superimposed on all lands in the Town of Rowley lying within the watersheds of groundwater aquifers which are now or may in the future provide public water supply. Its purpose is (1) to promote the health, safety and welfare of the community by ensuring an adequate quality and quantity of drinking water for the residents, institutions, and businesses of the Town of Rowley; (2) to preserve and protect existing and potential sources of drinking water supplies; (3) to conserve the natural resources of the Town of Rowley; and (4) to prevent temporary and permanent contamination of the environment.</p>
<p>Flea Market/Antique Store District</p>	<p>An overlay district superimposed on Main Street or the Central District defining an area of retail business focused on the sale of arts and crafts, antique and secondhand goods by groups or individuals licensed or otherwise authorized to use the portion of land, building or structures from which they sell the goods. May include established and temporary or transient businesses.</p>
<p>Retail Village Overlay District</p>	<p>An overlay district consisting of approximately 34.62 acres located at the west end of Haverhill Street (Route 133), just east of the I-95 interchange. The RVOD specifically allows for small and medium retail sales establishments that would otherwise not be allowed in the underlying zoning district, but only if such retail uses are developed in the context of a village-style retail mall or market area. Architectural character and detail which comport with the retail village style aesthetic shall be a primary feature of prospective projects.</p>

Figure 3.4 Town of Rowley Zoning

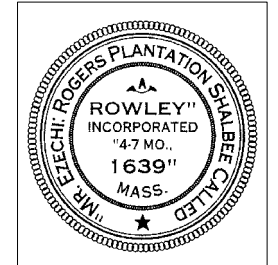
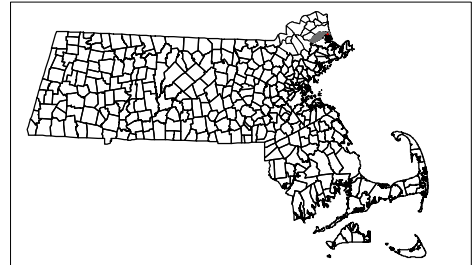


Legend

Water Protection District	Coastal Conservation District	Town Boundary
Floodplain District	Residential District	Property Parcels
Flea Market/Antique Store	Central District	Hydrographic Features
Historic District	Business/Light Industry District	Interstate
Outlying District	Retail District	Major Road
		Local Road

1 inch = 3,300 feet

0 1,650 3,300 6,600 Feet

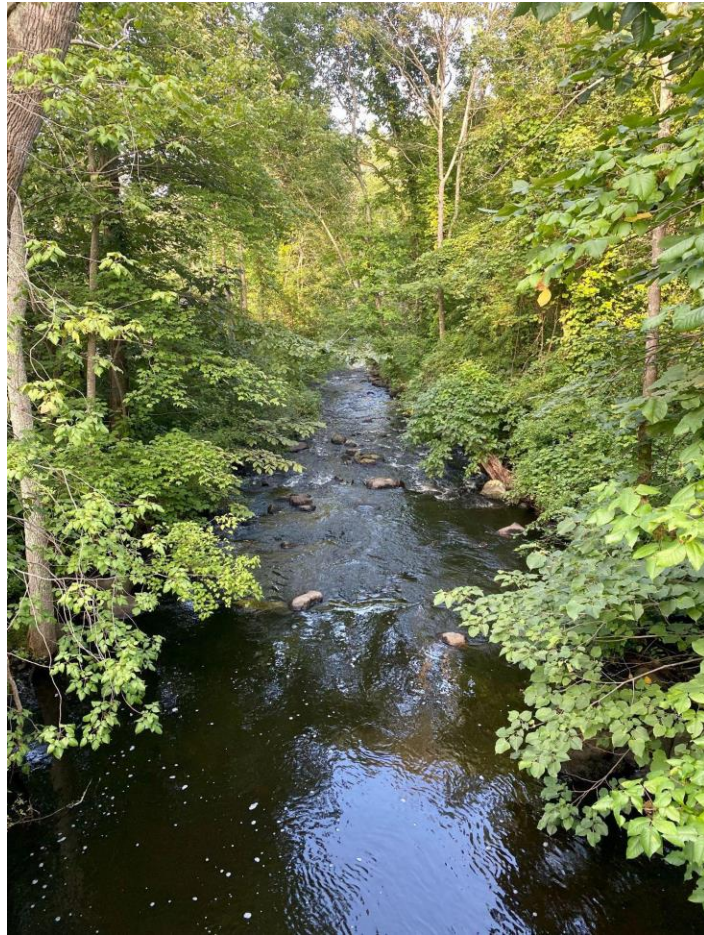


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Glen Mills 1893



Glen Mills 2021

Section 4 - Environmental Inventory and Analysis

4A Geology, Soils and Topography

Geology

Rowley's geology consists of an undulating bedrock surface (known locally as "ledge") that is overlain by a wide assortment of glacial and marine deposits consisting of till, sand and gravel, marine silts and clays, and fresh and saltwater muck and peat. The thickness of these sediments corresponds, to a large degree, to the relief and configuration of the underlying bedrock. For the most part, the deepest deposits (generally of marine clay or sand and gravel) are found in the low-lying, pre-glacial stream valleys that were incised into the bedrock surface. Thinner deposits, typically of till, occur in the uplands, where the bedrock is at shallower depth.

Soils

Soil characteristics are often the most important natural resource factor to be considered in determining development suitability, especially where on-site sewage disposal is required. Soil surveys prepared by the U.S. Department of Agriculture Soil Conservation Service (now the Natural Resources Conservation Service) identify a variety of soil associations that can be used to evaluate a particular area's use-limiting conditions such as high water table, shallow depth to bedrock, steepness, layers of hardpan, or poor drainage. In Rowley, there are nine major soil associations, as shown in Table 4.1. Figure 4.1 displays the location of these associations within Rowley.

Table 4.1 - Approximate Acreage Percent of the General Soil Areas in the Town of Rowley

General Soil Area	Acres	Percent
Hinckley-Windsor-Canton-Muck Association	680	6
Deerfield-Wareham-Scarboro Association	1,055	9
Canton-Charlton-Hollis Association	1,490	12
Windsor-Hinckley-Merrimack Association	2,235	18
Paxton-Millis Association	1,170	10
Muck-Biddeford Association	1,150	9
Charlton-Hartland-Hollis Association	435	4
Tidal Marsh Association	425	3
Charlton-Hollis-Belgrade-Buxton Association	800	7

Total for Survey Area	9,440	78
Area Excluded from Survey	2,740	22
TOTAL	12,180	100

Source: Soils and Their Interpretation for Various Land Uses - Town of Rowley, Massachusetts, USDA Soil Conservation Service, 1969.

The following discussion describes the general locations, physical characteristics, and compatible uses of these nine soil associations.⁵ These range from excessively drained deposits of outwash sand and gravel in the vicinity of the Town's municipal wells to very poorly drained clays, loams, and organic materials on the hilltops and in wetlands.

Hinckley-Windsor-Canton-Muck Association. These are drouthy soils formed in thick deposits of sands and gravel, well drained soils formed in coarse glacial till, and poorly drained soils formed in organic material. They occupy about 6 percent of the Town, and occur in three areas: (1) the Boxford Road-Newbury Road area, (2) an area along U.S. Route 1 in the south-central part of town, and (3) a small area between Ox Pasture Hill and Mill River.

In general, the soils in these areas are highly permeable and can absorb sewage effluent readily when not saturated. Unfortunately, this is not typically the case, particularly in the organic deposits where the water table is commonly at or near the surface for much of the year. This, in combination with general steepness of slope, tends to limit these areas to low to moderate densities of development.

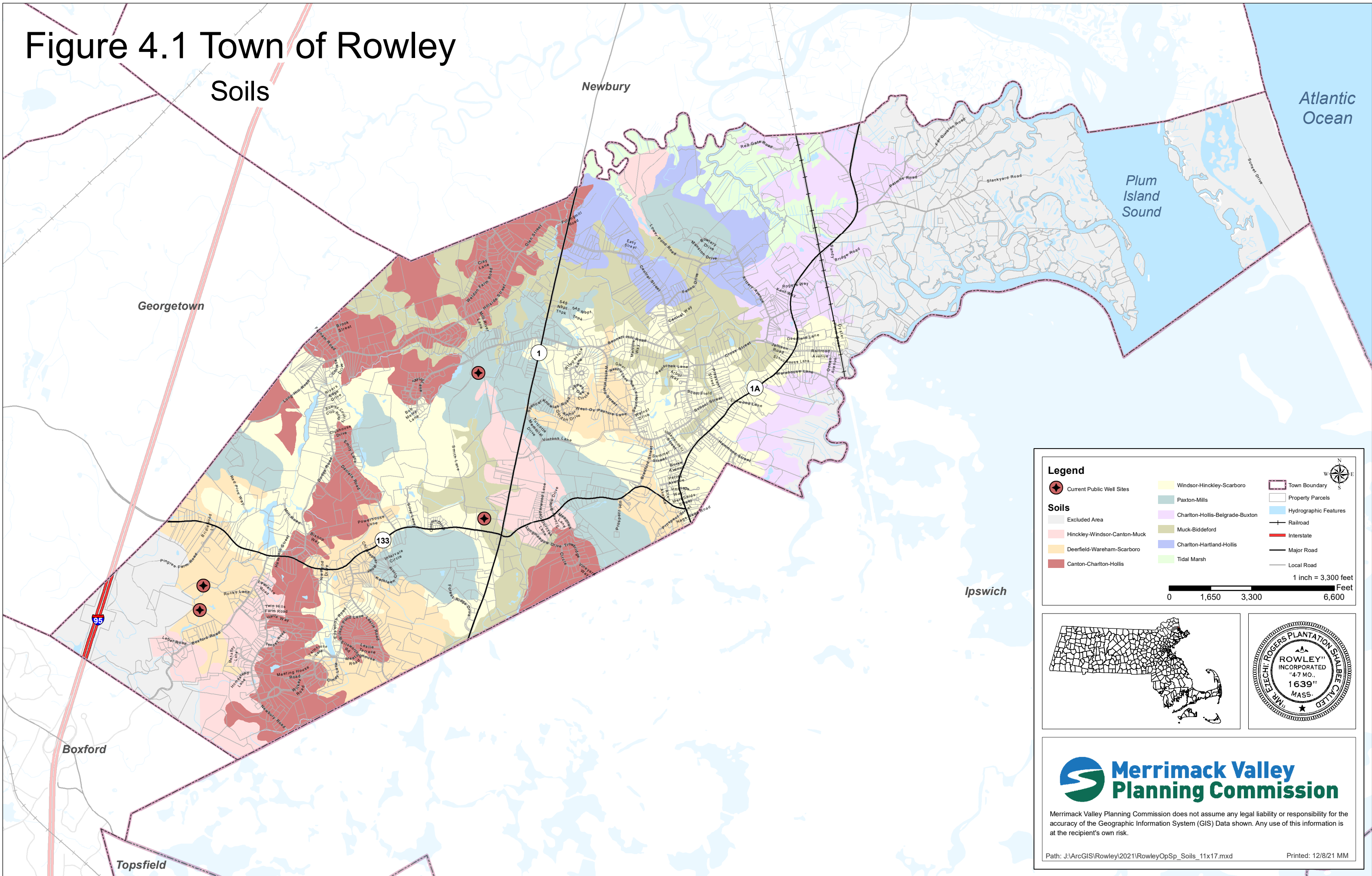
Deerfield-Wareham-Scarboro Association. These are moderately well-drained, poorly drained, and very poorly drained soils formed in thick deposits of sand. They occupy about 9 percent of the Town in areas west of Boxford Road, between Hunsley Hills and Wilson Pond, and west of Prospect and Smith Hills.

In general, they are highly permeable and can readily absorb sewage effluent when not saturated. However, in Rowley, about one third of areas characterized by these soils have an intermittent high water table that is within 1- 1/ 2 to 2 feet of the surface for up to half of the year. In the absence of a municipal sewer system, this poses severe limitations for home sites and commercial and industrial development. At the same time, there are only slight limitations for certain kinds of recreation and excellent opportunities for wildlife habitat.

⁵ For maps showing the location of these soils in Rowley, see *The Soil Survey of Essex County, Massachusetts Northern Part*, United States Department of Agriculture, Soil Conservation Service, in Cooperation with the Massachusetts Agricultural Experimentation Station, 1981.

Figure 4.1 Town of Rowley

Soils

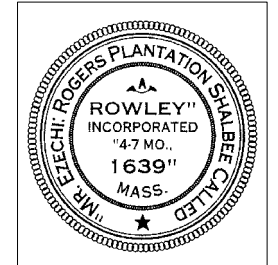
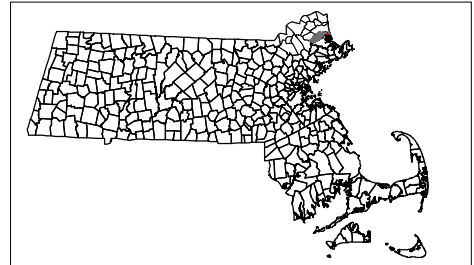


Legend

- Current Public Well Sites
- Windsor-Hinckley-Scarboro
- Paxton-Mills
- Charlton-Hollis-Belgrade-Buxton
- Muck-Biddeford
- Charlton-Hartland-Hollis
- Tidal Marsh
- Excluded Area
- Hinckley-Windsor-Canton-Muck
- Deerfield-Wareham-Scarboro
- Canton-Charlton-Hollis
- Town Boundary
- Property Parcels
- Hydrographic Features
- Railroad
- Interstate
- Major Road
- Local Road

1 inch = 3,300 feet

0 1,650 3,300 6,600 Feet



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Canton-Charlton-Hollis Association. These are deep, well-drained stony soils formed in sandy glacial till and shallow stony soils containing numerous rock outcrops. They constitute about 12 percent of the land and occupy several areas in the west central part of Town where the landscape is gently rolling with a number of rounded hilltops 50 to 130 feet above sea level.

Most of the deeper soils in this area have a rapid permeability, and may result in the contamination of shallow wells if the wells are installed near septic systems. In places where the slopes are moderate to steep and the bedrock is shallow, there are rather strict limitations on high-density residential, commercial, and industrial development. However, there are excellent opportunities for recreational use and wildlife habitat.

Windsor-Hinckley-Merrimack Association. These are well-drained soils formed in deep deposits of sand and gravel. They comprise about 18 percent of the land in Town and occur in scattered parcels along stream terraces, outwash plains, low hills, kames, and eskers. They offer good opportunities for either agriculture or development, and excellent opportunities for recreation.

Paxton-Millis Association. These are deep, stony soils that have formed in compact glacial till. They occupy about 10 percent of the Town in scattered locations that are gently rolling to hilly. In general, they present only slight limitations for agriculture, woodlands, and recreation, but severe limitations for home site development due to a slowly permeable hardpan that retards the downward movement of sewage effluent and rainwater.

Muck-Biddeford Association. These are very poorly drained soils that have formed in thick deposits of organic materials, silt, and clay. They occupy about 9 percent of the Town, principally the central part of Town, and occur in low-lying areas consisting of swamps and wet flood plains. A diverse mixture of moisture-tolerant trees and shrubs, such as red maple, alders, and buttonbush, and various freshwater marsh vegetation such as reeds, grasses, and cattails characterize them. Because of their wetness problems, they are largely unsuited to agriculture or home site development, but provide excellent habitat for birds, waterfowl, and wildlife.

Charlton-Hartland-Hollis Association. These are well-drained soils that have formed in thick deposits of fine sands and silts and stony soils that have formed in glacial till. They occupy about 4 percent of the Town and occur primarily in the rolling terrain around Ox Pasture Hill. Their layer of slowly permeable hardpan tends to constrain their use for on-site septic systems, but they offer good opportunities for agriculture, woodland management, and recreation.

Tidal Marsh Association. These are very poorly drained organic materials, silts, and clays that are subject to regular tidal flooding. They occur extensively throughout the eastern section of Town, where an intricate network of tidal streams dissects the flat terrain and man-made drainage ditches. Because of their severe wetness and low bearing capacity, they are restricted from essentially all uses except wetland wildlife habitat and marsh hay production.

Charlton-Hollis-Belgrade-Buxton Association. These are soils that have formed in glacial till and thick deposits of fine sands, silts, and clays. They occupy about 7 percent of the Town in areas where small knolls and marine plains adjoin the tidal marshes. In general, they are

unsuited to extensive development due to conditions of shallow bedrock, fluctuating water tables, and slow permeability, but offer excellent opportunities for recreation, woodland management, and wildlife habitat.

4B Landscape Character

Rowley's rural landscape is one of its most endearing characteristics. Despite a recent increase in development, the Town retains its rural New England flavor, exemplified in the historic Town Common, numerous historic homes, expansive woodlands, operational farms, and winding country roads lined with historic rock walls. The landscape character is further enriched by the expansive salt marsh at the Town's eastern boundary, providing vistas of the ocean and Plum Island, and important opportunities for wildlife observation. The rolling hills, many rivers and streams, and woodlands of Rowley further enhance the rural "feel" of the Town, providing many opportunities for passive recreation.

Unfortunately, development pressures have not left these resources untouched. With subdivision development has come substantial increased traffic on Rowley's roads. Agricultural lands and woodlands are impacted by new development. Protection of the Town's landscape character is critical if Rowley is to retain its own, unique identity that has encouraged generations of residents to remain, and which has attracted new residents to the Town.

4C Water Resources

Watersheds

Rowley has a diverse array of interconnected streams, ponds, and wetlands, shown in Figure 4.2, that serve important ecological functions and offer a variety of opportunities for recreational enjoyment. The Town is part of both the Parker River and Ipswich River watersheds, both of which drain into the Plum Island Sound (Figure 4.3). The Parker River watershed covers approximately 82 square miles across 9 communities in Essex County. The Ipswich River watershed is 155 square miles and encompasses all or part of 21 communities. It provides drinking water to over 350,000 people and thousands of businesses within 14 communities in northeastern Massachusetts. The Town comprises only a small percentage of the Ipswich River watershed via segments of Rowley River and Bachelder Brook.

Other prominent surface water resources, depicted in Figure 4.2, include:

- Mill River, which rises from a series of wetlands in the northwest corner of Town and flows northeasterly to the Parker River above the Town's northern border
- Upper and Lower Mill Ponds, two elongate impoundments created by a broadening of the Mill River channel
- Wilson Pond
- Great Swamp Brook, a southeastern flowing tributary of Mill River
- Bachelder and Ox Pasture Brooks, which emerge from wetlands in the central part of Town and flow northerly to Mill River
- Mud Creek
- Rowley River, a tidal waterway that serves as the Town's southeastern boundary and

- provides important shellfish habitat
- Plum Island Sound, a broad estuary fed by the Parker and Rowley Rivers

Aquifer

Rowley also has important groundwater aquifers, which are the Town's sole supply of drinking water (refer to Table 3D2b in previous section). To date, four of these sources have been developed for municipal use, of which three remain active. The Water Department received state certification of the Zone II areas for each wellfield. The Zone II designation formally establishes the aquifer recharge areas for the wells, and, in conjunction with the Municipal Water Supply Protection District, limits the types of uses allowed within the aquifer recharge area. Figure 4.2 shows the location of aquifer recharge areas (located within the boundaries of the Municipal Water Supply Protection District), wetlands, and wellfields.

Flood Hazard Areas

Several areas in town, where old roads cross floodplains associated with streams, are subject to flooding due to heavy rains. Rowley is riddled with floodplain areas, many designated as Zone A on maps produced by the Federal Emergency Management Agency. In addition, the eastern side of Plum Island is classified as Zone V2 as it directly faces the Atlantic Ocean.

The Parker River Clean Watershed Association (PRCWA) is a private non-profit organization dedicated to preserve and protect the Parker River and its watershed (which includes most of Rowley). PRCWA currently monitors several sites in Rowley for several variables including flow, fecal coliform bacteria, turbidity, dissolved oxygen and selected nutrients.

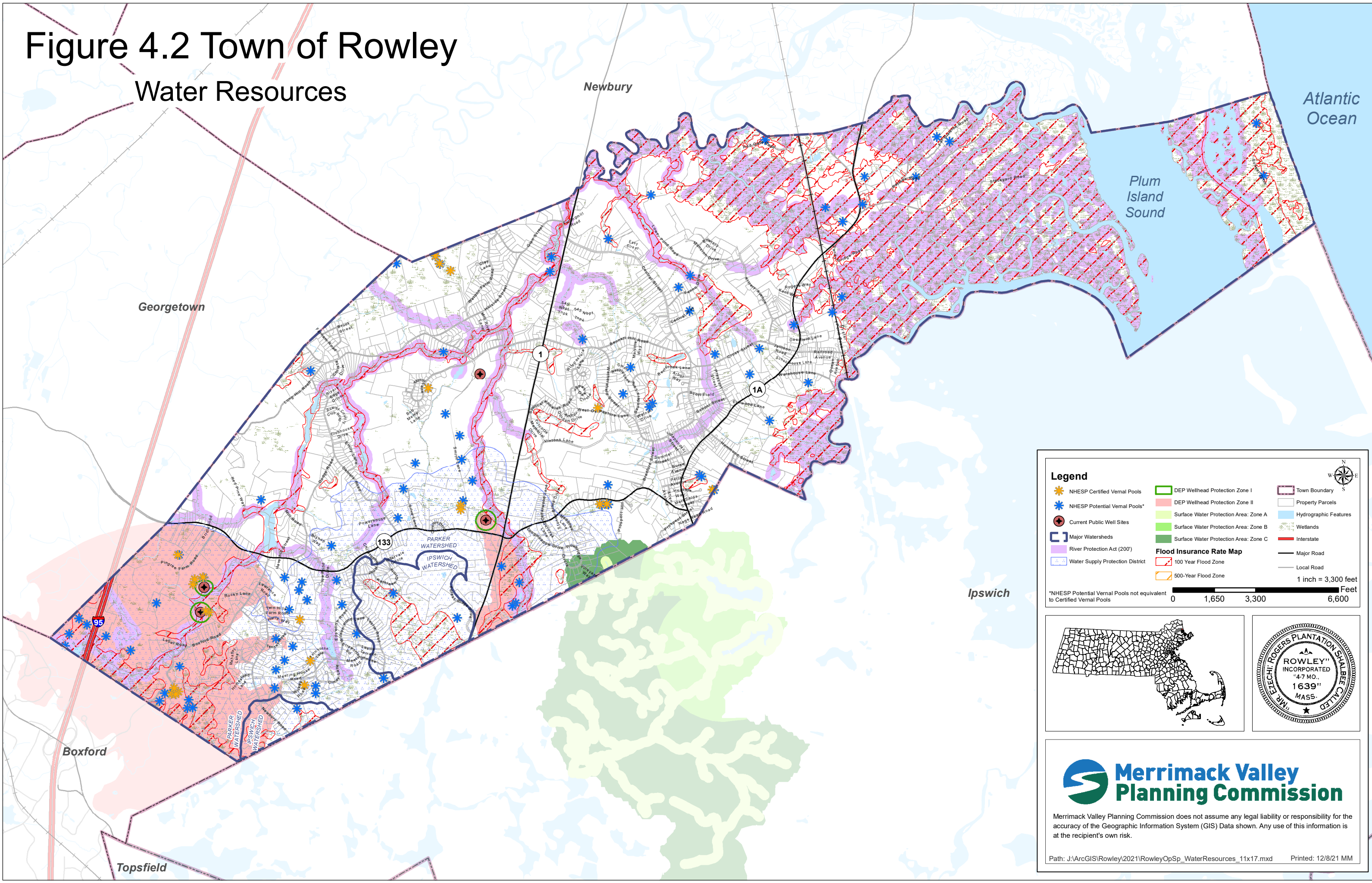
Wetlands

Salt marshes, coastal wetlands which are flooded and drained by tides, have long been recognized as one of the most efficient and productive ecosystems in the world. On average, salt marshes produce ten tons of biomass per acre per year, which is 30% more biomass than the best wheat fields in the world. As the interface between the land and the ocean, salt marshes receive fresh water, nutrients, and sediments from the land, and saline water and other sediments and nutrients from the sea. This continuous exchange created by the rising and falling tides replenishes oxygen supplies, assimilates water-borne pollutants, flushes out accumulated metabolic wastes, and carries food and vital nutrients to the marsh's diverse plants and animals.

In recognition of the importance of these functions, the salt marsh environment is protected against dredging, filling, and other harmful activities by the federal Clean Water Act and the state Wetlands Protection and Coastal Wetlands Restriction Acts. In spite of these measures, there is still potential for localized degradation of the marsh and other coastal resources through pedestrian overuse or lack of legislative enforcement. For this reason, local protection is critical in protecting wetland ecosystems. In 2003, the Town passed a local Wetlands Protection Bylaw that provides more stringent protection than the State's Wetlands Protection Act and adopted a Coastal Conservation District zoning for properties adjacent to and including the salt marsh. This zoning limits the number of housing units that can be built in this sensitive ecosystem.

Figure 4.2 Town of Rowley

Water Resources



Legend

- NHESP Certified Vernal Pools
- NHESP Potential Vernal Pools*
- Current Public Well Sites
- Major Watersheds
- River Protection Act (200')
- Water Supply Protection District
- DEP Wellhead Protection Zone I
- DEP Wellhead Protection Zone II
- Surface Water Protection Area: Zone A
- Surface Water Protection Area: Zone B
- Surface Water Protection Area: Zone C
- Flood Insurance Rate Map
 - 100 Year Flood Zone
 - 500-Year Flood Zone
- Town Boundary
- Property Parcels
- Hydrographic Features
- Wetlands
- Interstate
- Major Road
- Local Road

*NHESP Potential Vernal Pools not equivalent to Certified Vernal Pools

1 inch = 3,300 feet

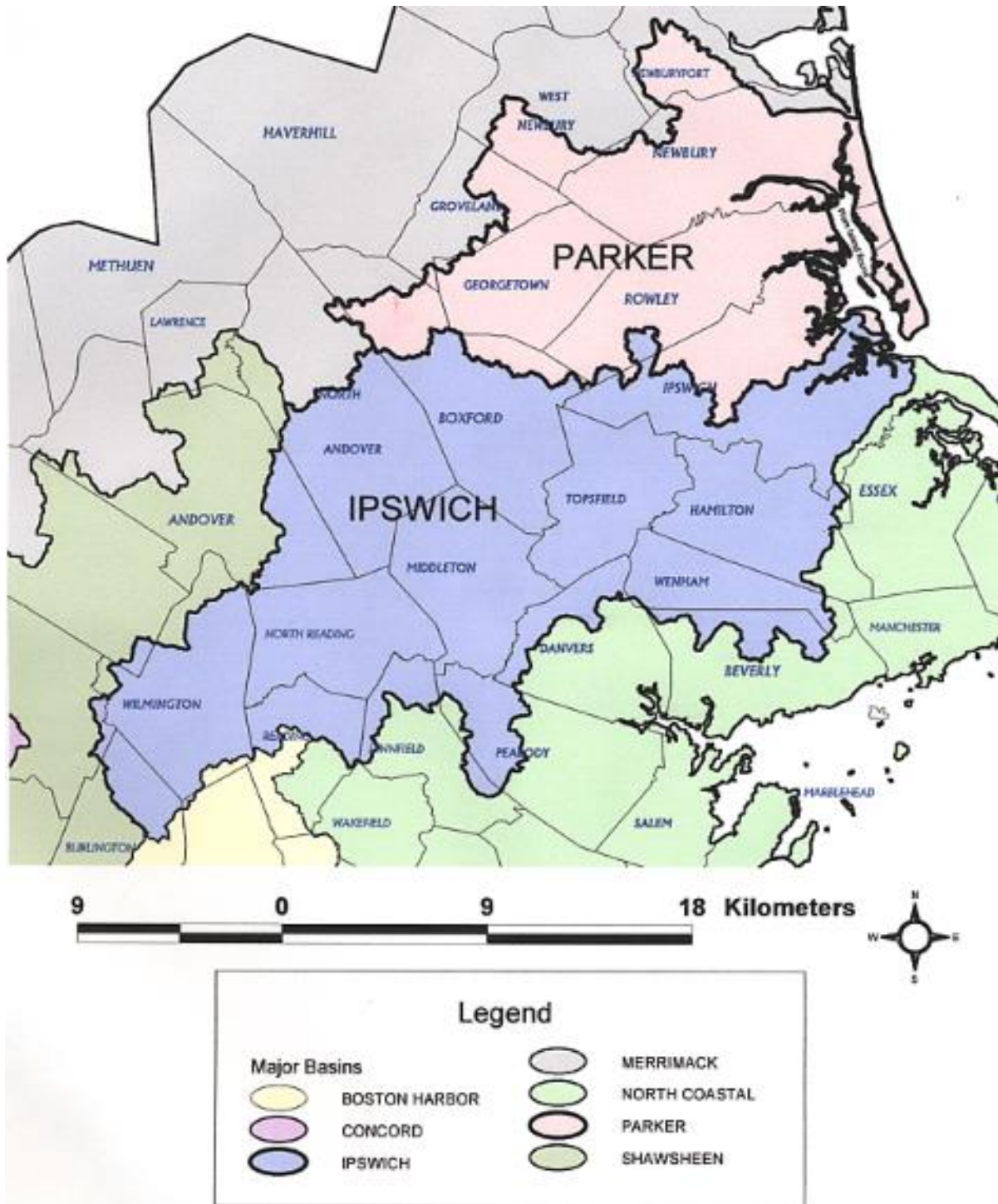
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Figure 4.3: Parker River and Ipswich River Watersheds



Source: Marine Resources of the Parker River-Plum Island Sound Estuary: An Update after 30 Years

4D Vegetation

Rowley contains a diverse mixture of vegetation types, ranging from dense stands of hardwoods in the upland areas and on hill slopes to broad expanses of salt marsh grasses and reeds on the coast. In-between is an assortment of mixed hardwood and softwood forests, inland wetlands, and abandoned and active farms, the latter of which include open land for hay, pasture, apple orchards, ornamental nursery plants, and vegetables. Dominant tree species in Town include white and red oaks, maples, and birch on the drumlin hills and well-drained uplands and red "swamp" maple in the freshwater lowlands. Associated conifers include eastern white pine and eastern hemlock. Associated understory species include barberry, black cherry, Virginia creeper, honey locust, sweet fern, alder, viburnum, and sumac. In the wetlands you can find sweet pepperbush, highbush blueberry, winterberry holly, and sensitive and cinnamon fern in wetlands.

In the Town's southwest corner is the 1,112-acre Georgetown-Rowley State Forest (297 acres in Rowley), which is administered for forest stand improvement by the Massachusetts Department of Conservation and Recreation. Though primarily devoted to timber production and the preservation of wildlife habitat, the forest offers excellent opportunities for hiking, horseback riding, nature observation, and other forms of passive recreation compatible with timberland management.

The eastern end of Town consists of a broad salt marsh that is dotted with low-rising knolls and crisscrossed by myriad small tidal creeks. Throughout the growing season, this area supports dense growths of *Spartina* grass, spike grass, and other estuarine plants that provide food and habitat for numerous species of resident and migratory birds and wildlife. Field surveys by botanists with the Massachusetts Natural Heritage Program (MNHP) have identified several plant species classified as "uncommon" in the Commonwealth. These plants, which are listed in Table 4.2, occur in several select locations that MNHP personnel have asked not be publicized in order to prevent inadvertent losses through collection or habitat destruction.

Table 4.2 - Endangered Plants

Element Name	Common Name	Federal Status	State Status	Last Observed
Aristida Tuberculosa	Seabeach Needlegrass	-	T	1995
Sagittaria montevidensis ssp. spongiosa	Estuary Arrowhead	-	E	1896
<i>Sparganium americanum</i>	Burr Weeds	-	T	

Key: SC = Special Concern; T = Threatened; E = Endangered

Source: Commonwealth of Massachusetts, Division of Fisheries and Wildlife, BioMap 2

Agricultural land also provides unique types of vegetated habitat. In 2020, Rowley had 858 acres (7.1 percent of its land) in agricultural use; primarily mixed between cornfields for the two remaining dairy farms, and forested land which is periodically harvested. Both of these types of land provide wildlife habitat.

There are 32 street trees that provide shade along the perimeter of the Town Common. The plentiful public shade trees include a mix of elm, linden, zelkova, and maple trees. Early in 2020, the Board of Selectmen accepted a donation of 15 Princeton Elm trees from the Institution of Savings. The trees were planted at Eiras Park, Haley Field, and the intersection of Cross Street and Jellison Road. The Town's Tree Warden is responsible for the care and control of public shade trees on Town roads.

4E Fisheries and Wildlife

Wildlife abounds in Rowley due to both the abundance and diversity of the Town's open space areas. In general, the species of birds and mammals present are characteristic of those found throughout much of the rural Northeast and consist of a variety of both resident and migrant populations. Some can be found in large numbers throughout much of the Town; others are rare and confined to a few small, localized habitats.

Inventory

The species of mammals most common to Rowley are listed in Table 4.3. The largest of these are the white-tailed deer, which inhabit mixed and deciduous woodlands with an understory, forest edges, and farms. In the past, an occasional moose or black bear (though not in recent history), has been spotted but these are transient, not permanent, residents.

The eastern cottontail is the most abundant species of rabbit. The New England cottontail and Varying hare are also present, especially in the region's wooded upland areas. Raccoons, weasels, and skunks are encountered throughout the region. The latter are present even in developed areas because of their ability to eat almost any kind of food and to inhabit virtually any place that will afford shelter.

Predators such as bobcats and gray and red fox are found throughout the region, although their local populations are never large. Fishers are also present, but are rare. There is evidence that the New England coyote is increasing its range and abundance in the state. Local sightings have been frequent within the past several years.

In terms of actual numbers, the area's most successful mammals are the rodents. The largest of these are the beaver and muskrats, which, though present, are restricted in distribution to the area's undisturbed streams, ponds, and wetlands. Squirrels and mice, of course, are found in nearly all habitats, including those of man. The latter are especially prevalent in areas of active farming.

Table 4.3 - Mammals of Essex County, Massachusetts

Key: C = common; R = rare; A = absent; P = present, status uncertain

	Common Name	Scientific Name	Status
Cervidae	Whitetail Deer	Odocoileus virginianus	C
	Eastern Cottontail	Sylvilagus floridanus	C
Leporidae	New England Cottontail	S. nutalli	C
	Varying Hare	Lepus americanus	C
	Striped Skunk	Mephitis mephitis	C
	Short-tailed weasel	Mustela erminea	C
Mustelidae	Long-tailed weasel	Mustela frenata	C
	Mink	Mustela	C
	Otter	Lutra canadensis	P
	Fisher	Martes pennanti	P
Procyonidae	Raccoon	Procyon lotor	C
Didelphidae	Opossum	Didelphis marsupialis	P
Felidae	Bobcat	Lynx Rufus	C
	New England Coyote	Canis latrans	C
Canidae	Gray Fox	Urocyon cinereoargenteus	C
	Red Fox	Vulpes fulva	C

	Eastern Gray Squirrel	<i>Sciurus carolinensis</i>	C
	Red Squirrel	<i>Tamiasciurus judsonicus</i>	C
Sciuridae	Eastern Chipmunk	<i>Tamias striatus</i>	C
	Woodchuck	<i>Marmota monax</i>	C
	Northern Flying Squirrel	<i>G. sabrinus</i>	C
	Southern Flying Squirrel	<i>Glaucomys volans</i>	C
Castoridae	Beaver	<i>Crstar canadensis</i>	C
Erethizontidae	Porcupine	<i>Erethizon dorsatum</i>	P
	White-footed mouse	<i>Peromyscus leucopus</i>	C
	Red-backed vole	<i>Clethrionomys gapperi</i>	C
Cricetidae	Meadow vole	<i>Microtus pennsylvanicus</i>	C
	Pine vole	<i>Pitmys pientorum</i>	C
	Muskrat	<i>Oudatra zibethica</i>	C
Zapodidae	Meadow jumping mouse	<i>Zapus hudsonius</i>	C
	Woodland jumping mouse	<i>napaeozapus insignis</i>	C
	North American deer mouse	<i>Peromyscus maniculatus</i>	C
Muridae	Brown rat	<i>Rattus norvegicus</i>	C
	House mouse	<i>Mus musculus</i>	C
	Eastern mole	<i>Scalopus aquaticus</i>	C
Talipidae	Hairytaile mole	<i>Parascalops breweri</i>	C
	Starnose mole	<i>Condylura cristata</i>	C

Soricidae	Masked shrew	Sorex cinereus	C
	Shorttail Shrew	Blarina brevicauda	C

Source: Mass.gov/masswildlife updated 2020.

Table 4.4 lists bird species that have been directly observed in Rowley’s woodlands, fields, wetlands, salt marsh, and beaches. These species commonly are associated with three plant communities found throughout eastern Massachusetts:

- White Pine - Hemlock - Northern Hardwood
- Orchards, fields, pastures, and cultivated land
- Fresh and salt water marshes

Among the habitats cited above, the greatest species diversity is encountered in the agricultural areas, where as many as 60 species of birds may be present. This diversity is largely attributable to the number and variety of introduced plants that comprise the orchard field-cultivated areas, offering a wide range of food, nesting sites, and protective cover. There is evidence that the number of birds in these areas is actually greater now, despite man's presence, than when the European settlers first arrived.

The second most important plant community is the White Pine - Hemlock - Northern Hardwood forest, which supports over 40 species of birds. This forest is mostly cutover, and populated with sprout or second growth trees and various groundcover flora. Such habitats are highly productive of bird (and mammal) life, more so than the undisturbed mature forests which originally occupied the region.

The fresh and salt-water marsh environments support some 35 species of birds. These habitats are especially important to wildlife as they provide protected breeding areas for resident species as well as stopover points and wintering grounds for a number of migratory birds and waterfowl.

Table 4.4 - Species of Birds Observed in Rowley, Massachusetts

Broad-winged Hawk	Red-tailed Hawk	Rough-legged Hawk
American Kestrel	Merlin	Peregrine Falcon
Ring-necked Pheasant	Ruffed Grouse	Northern Bobwhite
Clapper Rail	King Rail	Virginia Rail
Sora	Common Moorhen	American Coot
Black-bellied Plover	Lesser Golden-Plover	Semipalmated Plover
Piping Plover (endangered)	Killdeer	Greater Yellowlegs

Lesser Yellowlegs	Solitary Sandpiper	Willet
Spotted Sandpiper	Whimbrel	Hudsonian Godwit
Marbled Godwit	Ruddy Turnstone	Red Knot
Sanderling	Semipalmated Sandpiper	Western Sandpiper
Least Sandpiper	White-rumped Sandpiper	Baird's Sandpiper
Pectoral Sandpiper	Dunlin	Stilt Sandpiper
Buff-breasted Sandpiper	Ruff	Short-billed Dowitcher
Long-billed Dowitcher	Common Snipe	American Woodcock
Wilson's Phalarope	Laughing Gull	Bonaparte's Gull
Ring-billed Gull	Herring Gull	Iceland Gull
Lesser Black-backed Gull	Glaucous Gull	Great Black-backed Gull
Roseate Tern	Common Tern	Arctic Tern
Least Tern	Black Tern	Rock Dove
Mourning Dove	Black-billed Cuckoo	Yellow-billed Cuckoo
Eastern Screech-Owl	Great Horned Owl	Snowy Owl
Barred Owl	Great Grey Owl	Western Grebe
Long-eared Owl	Short-eared Owl	Northern Saw-whet Owl
Common Nighthawk	Whip-poor-will	Chimney Swift
Ruby-throated Hummingbird	Belted Kingfisher	Yellow-bellied Sapsucker
Downy Woodpecker	Hairy Woodpecker	Northern Flicker
Pileated Woodpecker	Olive-sided Flycatcher	Eastern Wood-Pewee
Yellow-bellied Flycatcher	Least Flycatcher	Eastern Phoebe
Great Crested Flycatcher	Western Kingbird	Eastern Kingbird
Horned Lark	Purple Martin	Tree Swallow
N. Rough-winged Swallow	Bank Swallow	Cliff Swallow
Barn Swallow	Blue Jay	American Crow

Black-capped Chickadee	Boreal Chickadee	Tufted Titmouse
Red-breasted Nuthatch	White-breasted Nuthatch	Brown Creeper
Carolina Wren	House Wren	Winter Wren
Marsh Wren	Golden-crowned Kinglet	Ruby-crowned Kinglet
Blue-gray Gnatcatcher	Veery	Gray-checked Thrush
Swainson's Thrush	Hermit Thrush	Wood Thrush
American Robin	Gray Catbird	Northern Mockingbird
Brown Thrasher	Water Pipit	Cedar Waxwing
Northern Shrike	Loggerhead Shrike	European Starling
White-eyed Vireo	Solitary Vireo	Yellow-throated Vireo
Warbling Vireo	Red-eyed Vireo	Blue-winged Warbler
Golden-winged Warbler	Tennessee Warbler	Orange-crowned Warbler
Nashville Warbler	Northern Parula	Yellow Warbler
Chestnut-sided Warbler	Magnolia Warbler	Cape May Warbler
Black-throated Blue Warbler	Yellow-rumped Warbler	Black-throated Green Warbler
Blackburnian Warbler	Pine Warbler	Prairie Warbler
Palm Warbler	Bay-breasted Warbler	Blackpoll Warbler
Black-and-white Warbler	American Redstart	Ovenbird
Northern Waterthrush	Louisiana Waterthrush	Connecticut Warbler
Common Yellowthroat	Wilson's Warbler	Canada Warbler
Yellow-breasted Chat	Scarlet Tanager	Northern Cardinal
Rose-breasted Grosbeak	Indigo Bunting	Rufous-sided Towhee
American Tree Sparrow	Chipping Sparrow	Field Sparrow
Vesper Sparrow	House Sparrow	Savannah Sparrow
Sharp-tailed Sparrow	Seaside Sparrow	Fox Sparrow
Song Sparrow	Swamp Sparrow	White-throated Sparrow

White-crowned Sparrow	Dark-eyed Junco	Lapland Longspur
Snow Bunting	Bobolink	Red-winged Blackbird
Eastern Meadowlark	Rusty Blackbird	Common Grackle
Brown-headed Cowbird	Orchard Oriole	Northern Oriole
Pine Grosbeak	Purple Finch	House Finch
Red Crossbill	White-winged Crossbill	Common Redpoll
Pine Siskin	American Goldfinch	Evening Grosbeak
Dovekie	Western Tanager	Ash-Throated Flycatcher
Fulvous Whistling Duck	Wild Turkey	Golden Eagle
Three-Toed Woodpecker	Red-Bellied Woodpecker	Sandhill Crane
Foster's Tern	Canada Goose	

Source: Direct observation by Town residents using Mass. Audubon Society Checklist (2016)

Plum Island Sound, the Great Marsh, and tidal estuaries within Rowley provide a rich environment for marine wildlife. Of particular economic and recreational importance are the shellfish beds, from which soft-shell clams are harvested. Surf clams, blue mussels, and oysters also inhabit these areas. Rowley's shellfish beds are regularly threatened by high levels of fecal coliform bacteria in the waters after heavy rainfalls, which require that the clam flats be closed to clambers.

The estuary also provides a habitat for numerous fin fish. Species have included winter flounder, windowpane, white perch, alewife, blueback herring, hake, American eel, and American smelt.⁶

In mid-1996, the Massachusetts Division of Fisheries and Wildlife did field sampling along the Mill River to identify fish species present in the River. Table 4.5 lists fish found in the Mill River at that time. The Bridle shiner is listed as a species of special concern by NHESP and is the only fish in Rowley so listed. "In addition, two anadromous species, blueback herring and smelt, spawn in the river each spring. The river is stocked with brook, brown, and rainbow trout, some of which do become anadromous and spend part of their lives in the estuary and ocean."⁷

⁶ Jerome, William C., Jr., Arthur P. Chesmore, and Charles O. Anderson, Jr., *A study of the Marine Resources of the Parker River-Plum Island Sound Estuary*, Massachusetts Department of Natural Resources, Division of Marine Fisheries, Monograph Series 6, March 1968.

⁷ Letter to Betty Herrick from Bob Gouthro, Rowley resident and conservationist, dated January 7, 1998.

Table 4.5 - Fish Species of the Mill River, Rowley, Massachusetts

American eel	Golden shiner
White sucker	Blue gill
Pumpkinseed	Redfin pickerel
Sea lamprey ammocetes	Creek chub sucker
Bridle shiner*	Largemouth bass
Brown bullhead	Brown trout
Yellow bullhead	Fallfish
Common shiner	

Source: USFWS, Parker River NWR and Ipswich River Watershed

Rare Species

There are no current records of endangered fish or wildlife species within the Town of Rowley. However, there are several birds, reptiles, and invertebrates that are listed by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) as either Threatened (T) or of Special Concern (SC). Those species are listed in Table 4.6 and Table 4.7, respectively.

Table 4.6 - Birds observed in the Town of Rowley and listed on the NHESP

Species	Common Name	State
<i>Ammodramus savannarum</i>	Grasshopper Sparrow	T
<i>Ammospiza caudacuta</i>	Saltmarsh Sparrow	SC
<i>Asio otus</i>	Long-eared Owl	SC
<i>Tyto alba</i>	Barn Owl	SC
<i>Rallus elegans</i>	King Rail	T
<i>Sterna hirundo</i>	Common Tern	SC

Caprimulgus vociferous	Eastern Whip-poor-will	SC
Ammodramus savannarum	Grasshopper Sparrow	T
Calidris canutus	Red Know	T
Charadrius melodus	Piping Plover	T
Circus cyaneus	Northern Harrier	T
Geothlypis philadelphia	Mourning Warbler	SC

Source: Mass.gov/masswildlife - Last Updated September 2020

Table 4.7 - Vertebrates and Invertebrates of Rowley listed on the NHESP

Scientific Name	Common Name	State Status
Ambystoma Laterale	Blue-Spotted Salamander	SC
Glyptemys insculpta	Wood Turtle	SC
Terrapene carolina	Eastern Box Turtle	SC
Cincinnatia Winkley I	New England Siltsnail	SC
Heterodon plairhios	Eastern Hog-nosed Snake	SC
Littoridinops Tenuipes	Coastal Marsh Snail	SC

Source: Mass.gov/masswildlife - Last Updated September 2020

Vernal Pools

Vernal pools are small, seasonal water bodies occurring in isolated basins, which are usually wet during the spring and early summer and dry up during the later summer months. Vernal pools typically lack fish populations, making them excellent breeding habitat for many amphibian species and larval and adult habitat for many insect species, as well as other wildlife. The wood frog (*Rana sylvatica*) and all species of mole salamander (genus *Ambystoma*) that occur in Massachusetts breed exclusively in vernal pools. Areas in the immediate vicinity of the pool also provide these species with important non-breeding habitat function, such as feeding, shelter and over wintering sites.

Certified Vernal Pools are resources that have been inventoried by local volunteers and certified under the Massachusetts Natural Heritage and Endangered Species Program process. Certified

Vernal Pools that are large enough to constitute Areas Subject to Flooding (as defined by the Massachusetts Wetland Protection Act) are protected under the Wetland Protection Act for the wildlife habitat value. However, State law does not protect smaller Certified Vernal Pools (or those that have not yet been identified). Potential Vernal Pools are resources that have been identified by the state using aerial photography and are also unprotected. Because vernal pools are temporary and seasonal, they can easily be developed unless they have been certified with the NHESP and have protection under the Wetland Protection Act.

The State has identified multiple Potential Vernal Pools in Rowley. The previous members of the Open Space Committee have certified 11 vernal pools through NHESP. The rapid rate of development in Rowley makes it imperative that additional vernal pools be proactively certified and mapped so as to steer proposed development projects away from these critical habitats. The Conservation Commission, Open Space Committee, and Planning Boards should continue efforts to identify and protect vernal pools.

Wildlife Corridors

The Massachusetts Department of Fish and Game (formerly the Massachusetts Division of Fisheries and Wildlife) reported on important sites for biodiversity conservation in the 2012 BioMap2 project. The project identified areas in Town that were deemed most important to protect in order to maintain the biodiversity of the Town, region, and state. According to the report, there are 3,365 acres of core habitat in Rowley, mostly located in the eastern section of Town, of which 1,830 (54.4%) have been protected in perpetuity. The entire section of Plum Island that is included within the boundaries of Rowley is designated as core habitat, and protected as part of the Parker River Wildlife Refuge, where many rare species and natural communities can be found. The remaining areas of unprotected core habitat along Plum Island Sound contain continuous areas of coastal wetland and could serve as a good area for further protection efforts. These areas serve as prime habitat for several coastal water birds.

The western edge of town has several large core habitat polygons and a large expanse of Supporting Natural Landscape (SNL) areas, or those that serve to buffer and connect core habitats. These areas contain wetland resources suitable for turtles and salamanders, and are therefore a good focus for land protection to maintain biodiversity.

The Massachusetts Natural Heritage and Endangered Species Program denotes three large wildlife areas/corridors within the Town. One incorporates the eastern third of the Town, including a portion of the Great Marsh, which extends from Cape Ann to Salisbury. Many parcels within the Great Marsh are owned by land protection organizations such as Mass Audubon, Essex County Greenbelt Association, and the MA Department of Fish and Game. The second incorporates land in the western part of the Town in the area of the Georgetown-Rowley State Forest. The third straddles the border between Rowley, Ipswich and Boxford. Other wildlife corridors include the riparian areas along the Mill, Egypt, and Rowley Rivers.

4F Scenic Resources and Unique Environments

Rowley boasts a wide variety of scenic landscapes from coastal, river, farmland, and forest scenery in New England. Table 4.8 lists several important scenic, cultural and historic sites in Rowley. Many of these features are discussed further in the text below, and shown on Figure 4.4.

Scenic Landscapes

The Parker River Wildlife Refuge on Plum Island offers sweeping vistas of the Atlantic Ocean and the salt marshes, and provides opportunities for bird watching and wildlife observation. Important coastal vegetation is found throughout the Refuge. The Refuge can be viewed from automobiles (along Route 1A), footpaths, and waterways. The views change from season to season, and from tide to tide. Spring and summer vegetation, fall foliage and winter snows provide dramatic landscapes across the marshes. Stacks of drying salt marsh hay are abundant. Artists and photographers frequently use the salt marsh as the subject of their work. Both the areas of Rowley within the Parker River Wildlife Refuge and the salt marsh are listed by the NHESP as Critical Natural Landscapes.

Inland from the marsh, the landscape is characterized by drumlins, country roads, historic architecture, farmlands and forests. Rowley's open space parcels provide public access to over a thousand acres of woodlands, meadows, and marsh land. Most parcels have a small network of trails available for passive recreation like walking and birding. It is imperative that the Town continue to persevere and support permanently set aside open space to maintain the rural and agricultural character for which Rowley is known.

Major Characteristic or Unusual Geological Features

Rowley's topography is dominated by the five hills that lie within the Town's boundaries. These include Prospect, Long, Hunsley Hills, Ox Pasture, and Smith Hills. Prospect Hill is the highest point in Rowley, and is protected from development after being purchased by the State of Massachusetts Department of Conservation and Recreation. Prospect Hill boasts 90 acres of forested land accessed via four trails that are part of the Bay Circuit Trail. The backside of the hill is in Ipswich and is protected by the Essex County Trail Association. Hunsley Hills is a glacial drumlin, whose 104 acres was first acquired by the Town with the help of the Division of Conservation Services Self-Help Program in 2000. The hillside is now permanently protected from development and an extensive trail network has since been completed.

Cultural, Archeological and Historic Areas

Rowley has two historic districts listed by the Massachusetts Historical Commission - the historic Town Center area and the Glen Mills area (which includes the oldest fulling mill and oldest stone arch bridge in America). There are over 180 historic structures and sites in Town, of which several are listed in the National Register of Historic Places as designated by the National Park Service. Of particular note is the Platt-Bradstreet House, constructed in 1677. This structure serves as the headquarters for the Rowley Historical Commission.

Table 4.8 - Partial List of Scenic, Cultural and Historic Sites: Rowley, MA

Site	Features
Prospect Hill	Views of estuarine marsh, flats and riparian forest
Smith Hill on Bradford Street	Pastoral vistas
Hunsley Hills	Woodlands, hills
Long Hill	Woodlands, hills
Mill River	Riparian forest, waterfowl, marsh
Rowley River	Salt marsh, historic bridge
Ox Pasture Brook	Wildlife, wetlands
Bachelor Brook	Wildlife, wetlands, woodlands
Streets within Historic Districts	Historic houses, rock walls, historic mill
Mansion Drive	Ocean, salt marsh, agriculture
Hammond Street	Land of King's Grant, salt marsh
Dodge Road	Agriculture, wetlands, river
Red Gate Road	Agriculture, salt marsh
Pingree Farm Road (Morgan Farm) off Boxford	Pastoral fields, woodlands, boardwalk, river, agriculture, Rowley Water Supply Protection
Boxford Road	Woodlands, State Forest
Pulpit Rock	Historic rock and woodlands, burying grounds
Nelson Island	Duck blinds, tidal pools, wetlands, Plum Island Sound
Rough Meadows	Coastal woodlands, salt marshes, tidal creeks
Town Recreation Ball Fields	Water Supply Protection
Sandy Bridge	Woodlands
Dodge Reservation	Woodlands, wildlife
Bradstreet Farm	Agriculture, woodlands, wildlife, marsh, pond
Sullivan / Hart's Way	Woodlands, eskers, wildlife, streams

Mehaffey Farm (Newbury Rd)	Agriculture, woodlands, wildlife
Harris Wood Lot	Views of Upper Mill Pond

Source: Open Space Committee

Pulpit Rock, located at the junction of Leslie Road and Meetinghouse Lane, is said to have been the site of a 1770 sermon conducted by the Reverend George Whitfield, and attended by 2,000 people. A historic smallpox cemetery (Metcalf Rock Burial Ground) is located on Trowbridge Circle. The site marks the graves of twelve victims of the disease who died during an epidemic between 1775 and 1781. On September 15, 1775, Rowley’s Town Common served as an encampment for musketmen in Benedict Arnold’s expedition to Quebec during the Revolutionary War.⁸

In 2000, the Town partnered with the Essex County Greenbelt Association, the Massachusetts Audubon Society, and a private donor to purchase a conservation restriction on the historic site known as the Minister’s Wood Lot. This 20-acre parcel is the site of the wood lot of Ezekiel Rogers, the founder of the Town of Rowley. The parcel is adjacent to an important salt marsh habitat. Soon after acquisition of the CR, the Town received a grant from AmeriCorps to develop a trail network on this property. Trail development was completed in the fall of 2000.

Unique Environments

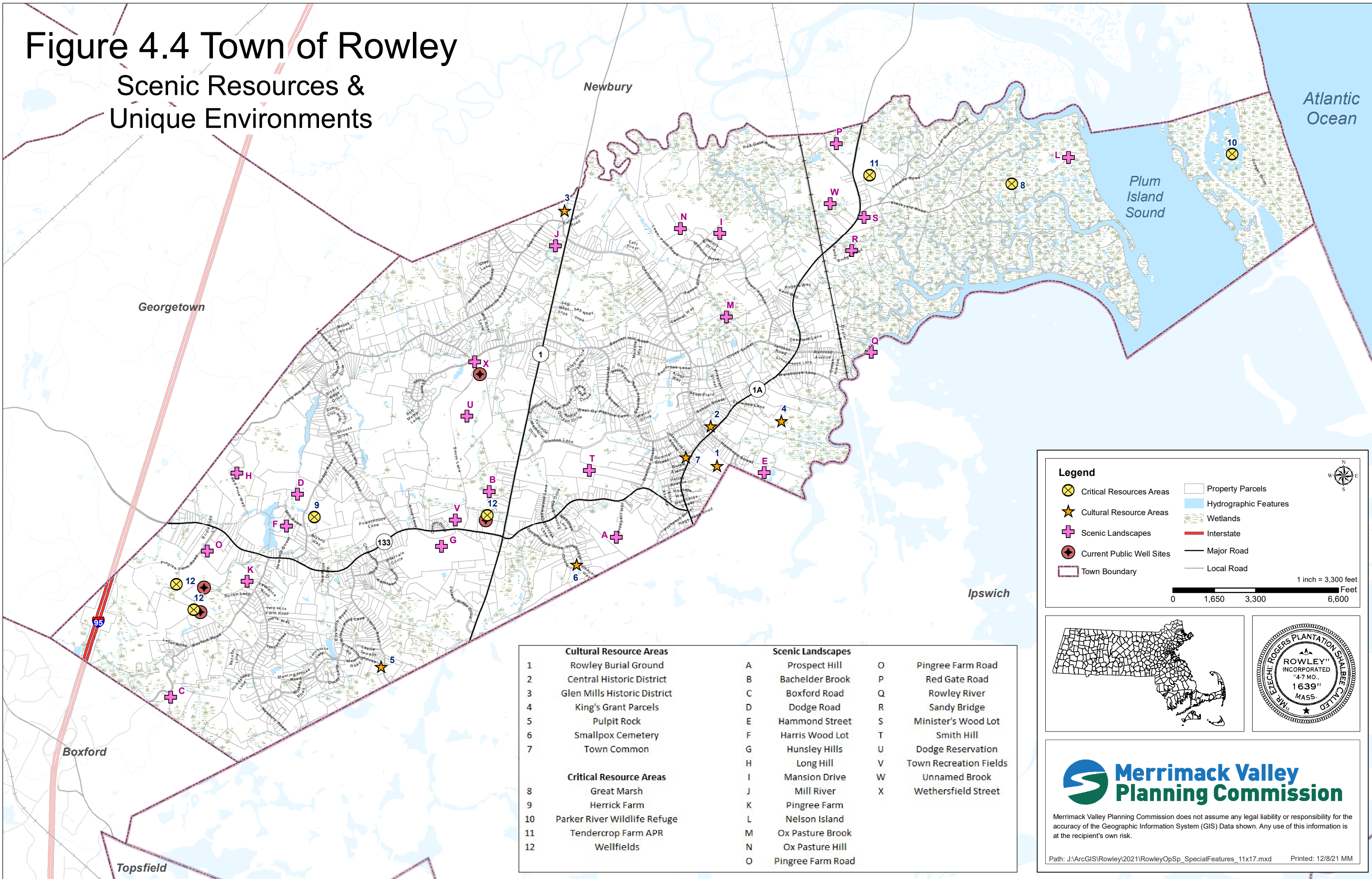
In 1979, the Executive Office of Environmental Affairs designated the Parker River/Essex Bay an Area of Critical Environmental Concern (ACEC). This area includes land and water within Rowley, Newbury, Essex, Ipswich, and Gloucester. It includes all of the Parker River Wildlife Refuge and Plum Island Sound, as well as parts of the Rowley and Mill Rivers and Ox Pasture Brook. All of the salt marsh within Rowley is included in the ACEC. The Parker River/Essex Bay ACEC includes virtually all of the seventeen significant resources considered in the ACEC designation process. Of particular note are barrier beaches (including Plum Island), salt marsh, dunes, beach, shellfish, estuaries, anadromous fish runs, floodplains, erosion and accretion areas, coastal-related recreation, historic sites, significant wildlife habitats, and significant scenic sites.

Despite the ACEC designation for the Parker River/Essex Bay area, the area continues to face environmental challenges. In particular, pollution from agricultural uses, failing septic systems, and storm water runoff continue to harm the area. Because of high bacterial counts after rainfall, the shellfish beds in Plum Island Sound are regularly closed after rainfalls of just ½ inch.

⁸ Jewett, Amos Everett and Emily Mabel Adams Jewett, *Rowley, Massachusetts “Mr. Ezechi Rogers Plantation” 1639-1870*, Newcomb and Gauss, Co., Printers: Salem, MA, 1946.

Figure 4.4 Town of Rowley

Scenic Resources & Unique Environments



Legend

- Critical Resources Areas
- Cultural Resource Areas
- Scenic Landscapes
- Current Public Well Sites
- Town Boundary
- Property Parcels
- Hydrographic Features
- Wetlands
- Interstate
- Major Road
- Local Road

1 inch = 3,300 feet
 0 1,650 3,300 6,600 Feet

Cultural Resource Areas		Scenic Landscapes	
1	Rowley Burial Ground	A	Prospect Hill
2	Central Historic District	B	Bachelor Brook
3	Glen Mills Historic District	C	Boxford Road
4	King's Grant Parcels	D	Dodge Road
5	Pulpit Rock	E	Hammond Street
6	Smallpox Cemetery	F	Harris Wood Lot
7	Town Common	G	Hunsley Hills
		H	Long Hill
		I	Mansion Drive
		J	Mill River
		K	Pingree Farm
		L	Nelson Island
		M	Ox Pasture Brook
		N	Ox Pasture Hill
		O	Pingree Farm Road
Critical Resource Areas		O	Pingree Farm Road
8	Great Marsh	P	Red Gate Road
9	Herrick Farm	Q	Rowley River
10	Parker River Wildlife Refuge	R	Sandy Bridge
11	Tendercrop Farm APR	S	Minister's Wood Lot
12	Wellfields	T	Smith Hill
		U	Dodge Reservation
		V	Town Recreation Fields
		W	Unnamed Brook
		X	Wethersfield Street

Merrimack Valley Planning Commission does not assume any legal liability or responsibility for the accuracy of the Geographic Information System (GIS) Data shown. Any use of this information is at the recipient's own risk.

Path: J:\ArcGIS\Rowley\2021\RowleyOpSp_SpecialFeatures_11x17.mxd Printed: 12/8/21 MM

4G Environmental Challenges

New development in Rowley has the potential to stress the Town's environmental and open space resources. The challenges posed by new development include:

- Deforestation
- Reduction of the Town's potential open space resources, such as agricultural land, forests, and fields
- Increased potential for surface water and groundwater pollution
- Increased demand on the Town services, including water supply, waste disposal, and recreational facilities
- Evolution of the Town's rural character

The Town is working to mitigate the impact of new development through the issuance of special permits for Open Space Residential (OSRD) projects, or "cluster developments" that, "promote integrated, creatively-designed residential development that results in the preservation of open space and natural resources, the reduction of infrastructure and site development costs, and the promotion of attractive standards of appearance consistent with Town character." OSRDs are required by law to dedicate a minimum of 50 percent of the OSRD land as permanent open space that is to be, "devoid of structures and impervious surfaces, and shall be left in its undisturbed natural condition or developed to assure its use as an area for passive recreation or a visual amenity."

In July 2003, the Planning Board implemented a provision requiring public access as part of OSRD approval. Since that time, several OSRD developments have been approved, providing access to Town-owned land that was previously inaccessible as well as ensuring permanently protected open space. Town OSRD projects include:

- Fox Meadows: 28.4 acres including a Conservation Restriction that allows public access to a hiking trail that connects Wethersfield Street to Central Street
- Wild Pastures: 32.2 acres including a hiking trail loop around the perimeter of the property and a gravel pullover for public parking
- Pingree Farms: 14.5 acres with public access to the Georgetown-Rowley State Forest located behind the property
- Carriage Pines: 12.5 acres adjacent to the Rowley Country Club protected by a Conservation Restriction that allows the continued operation of the existing golf course

To date, there are three definitive OSRD subdivision plans being reviewed by the Planning Board for possible future development.

Deforestation

Forests are important for providing wildlife habitat, regulating climate and assimilating

pollution, protecting water supply and quality, mitigating flooding and retaining soils. Forests also have important aesthetic and recreation value, adding greatly to quality of life. Forests in Rowley have historically been managed for production of wood products and also utilized in the pasturing of livestock. Today the lack of active forest management and the open condition of abandoned pasture land has presented an opportunity for invasive plant species to gain a foothold. Forested pasture land is particularly susceptible to intrusion by glossy buckthorn, Japanese barberry and Oriental bittersweet. Active management of forests for wood products is complicated by the decreasing size of the forested acreage under individual ownership. Harvesting of wood products can become uneconomical due to the smaller acreages involved and the relatively low value of the tree species that compose Rowley's forests. Forests also face threats from invasive pests including the Asian long-horned beetle, emerald ash borer, gypsy moths and winter moths. Monitoring and managing the town's protected open spaces are important to ensure the long-term sustainability of Rowley's forests and the benefits they provide.

Surface Water and Groundwater Pollution

An inventory project of the Great Marsh Area of Critical Environmental Concern (ACEC), of which the Town of Rowley comprises 15 percent of the 25,500 acres, was completed in 2000. The project identified resource trends, threats, and opportunities for restoration based on a literature review of published data and interviews with scientists. In general, changes in land use patterns, such as new development and increases in impervious surfaces, has the potential to degrade water quality and impair wetland functions (thus reducing pollutant filtration).

In Rowley, fecal coliform has been found in various locations along the Mill River watershed. Fecal coliform is caused by human and animal waste that stems from failing septic systems, agricultural runoff, and stormwater runoff from impervious surfaces. In 2016, three water bodies in Town were identified by the State of Massachusetts Integrated List of Waters (as required by the Federal Clean Water Act) as a "Category 5 Water" or impaired and requiring a designated Total Maximum Daily Load or TMDL due to the presence of fecal coliform. These waters included:

- Egypt River (east of Jewett Hill)
- Mill River (confluence with Parker River)
- Rowley River (confluence with Egypt River and Muddy Run)

Two of the water bodies that are impaired by fecal coliform (Egypt River and Rowley River) have been designated as suitable for shellfish harvesting without depuration (i.e. Conditionally Approved Shellfish Areas), and fecal coliform is not to exceed a mean of 14 organisms per 100 ml of water. The shellfish area at Mill River (confluence with Parker River) has been designated as prohibited, or closed for the harvesting of shellfish, due to high levels of fecal coliform pollution.

Rowley has addressed fecal coliform by supporting and participating in both the Plum Island Sound Project and the Mill River Project. Although some advances have been made, fecal coliform bacteria counts are still of concern, potentially impacting Town water resources, aquatic

life, fisheries, and shellfish beds.

Some recommendations made in the Plum Island Sound Project for Rowley to consider are:

- Completion of a wastewater management plan to upgrade failing septic systems, including investigation of alternative technologies
- Enact an agricultural management program, working with farmers and stable owners to obtain funding to install best management practices
- Continue to address water quality when reconstructing roads and drainage systems
- Adopt growth management strategies to protect open space (especially natural pollution filtration systems such as marshes and wetlands), prevent sprawl, and reduce likelihood of increased pollution.
- Continue frequent regional monitoring to determine changing sources of bacterial contamination. When a source of elevated pollution is identified, efforts should focus on remediating the pollutant source.

In 2010, the Department of Environmental protection issued a consent order requiring the Town to build a new water treatment plant after high levels of manganese were found in two of the Town's wells. The new plant was completed in 2014.

Flooding

Several areas in Town are subject to chronic flooding due to heavy rains. These include: Wethersfield Street at Bachelder Brook, Hillside Street at Great Swamp Brook, Route 133 at Cedarwood Lane, and several areas on the west side of Town south of Route 133, including Leslie Road and Newbury Road. These old roads, built across floodplains associated with streams, were constructed at existing grade, and therefore can be underwater during flood times. There are two aspects to flooding - water volume which needs storage; and rate of runoff. Volume is addressed by the Wetlands Protection Act and Planning Board regulations. New roads now are required to be raised above the floodplain, with culverts sized to allow the stream to pass. When floodplain areas are filled for roads, driveways, grading or building, an equal volume of flood storage space must be excavated as compensation.

The runoff rate is addressed only for subdivisions and commercial development. When naturally vegetated landscape is changed to impervious roofs, driveways, parking areas or quickly draining lawns, rainfall and snowmelt can flood off the site more quickly than before development occurred, causing problems downslope. Single lots (ANR developments) are not subject to any regulation addressing this runoff rate issue.

Erosion and Sedimentation

Both the Mill River and Ox Pasture Brook have suffered from sedimentation and erosion of their banks

as a result of development and stormwater runoff. Sedimentation in these waterways has caused loss of fisheries, and the loss of general aquatic and microinvertebrate habitats. Rowley has implemented better planning tools to work with developers to prevent further deterioration of our important water resources. In addition, the budget of the Town Highway Department must include resources to ensure that road sanding, street sweeping and catch basin cleanout are accomplished without adding to sedimentation problems in the Town's streams, brooks, and rivers.

In addition, the Town issued a Stormwater Management and Erosion Control Bylaw in November 2007 with regulations amended in June 2021. If earth disturbance is 20,000 square feet or more, a Stormwater Management Permit must be filed. If earth disturbance is under 20,000 square feet of disturbance, appropriate erosion controls must be implemented to prevent transport of sediments into wetlands and waterways, abutting property, or the Town's right of ways. Developers generally provide construction period erosion control plans, but few (if any) prepare post-construction plans.

Hazardous Waste Sites

In recent years, the State Department of Environmental Protection listed several Rowley sites as hazardous materials sites. Most of these sites represented either small industrial problems or petroleum spills from automobile accidents. Most have been cleaned up and the State's files closed.

Landfills

The Rowley landfill, located on Red Gate Road, has been closed since 1991. A portion of the site is owned by the Town of Rowley, while the majority of the site is privately-owned land. In 1990, the Massachusetts Department of Environmental Protection issued an Administrative Consent Order to the Town to prepare a Comprehensive Site Assessment Scope of Work and closure plan for the landfill. The landfill has now been capped and is being monitored. A 1996 report by R.N. Buchsbaum reported that, "...the levels were not of concern and future analysis was deemed unnecessary."

The Town currently has no official plans for the reuse of the landfill. The site is large and potentially could be used for recreational uses; however, recreational uses should only be pursued if the Town can be assured that there are no associated health risks.

Climate Change

The Municipal Vulnerability Preparedness grant program (MVP) was created in 2017 as part of Governor Baker's Executive Order 569 and provides support for cities and towns in Massachusetts to identify climate hazards, assess vulnerabilities, and develop action plans to improve resilience to climate change. The Town of Rowley was designated as a Municipal Vulnerability Preparedness (MVP) Community in October 2020 and is now eligible to apply for Action Grants to implement projects that address the climate-related vulnerabilities. Those vulnerabilities, as identified in the Town Summary of Findings Report and stated below, include changing temperatures, sea level rise, more frequent and intense storms, and flooding.

Average global temperatures have risen steadily in the last 50 years, with 19 of the 20 warmest years having occurred since 200. The National Climate Science Center at the University of Massachusetts Amherst predicts that mean annual temperatures in the Parker River Basin could increase 12.4 degrees Fahrenheit by the end of the century, with the number of extreme heat days (over 90 degrees Fahrenheit) expected to increase by as much as 32 days per year by 2050. The area can also expect shorter, milder winters. Extended heat waves could significantly impact public health, infrastructure, agriculture, and forest and wetland ecosystems. Additionally, as higher temperatures lead to greater evaporation and earlier snowmelt, the frequency and intensity of drought conditions are predicted to increase in summer and fall months in New England.

Rising temperatures have contributed to thermal expansion of the ocean and an influx of fresh water from melting glaciers, resulting in global sea level rise since 1950. Approximately 20 percent of Rowley's land area currently lies within the coastal hazard zone, and by 2070 this is expected to increase to 25 percent.⁹ Sea level rise and future storms are likely to inundate the marsh that currently helps reduce storm surge, prevent erosion, and provide important habitat to rare and threatened species.¹⁰

Climate change has the potential to increase the intensity and frequency of storms. In 2018, the Fourth National Climate Assessment stated that heavy precipitation events in most parts of the United States have increased in both intensity and frequency since 1901. In Massachusetts, these storms are the most frequent naturally occurring hazard. Memorable Nor'easters include October 2017 and March 2018, when storms caused road closures and extended power outages throughout the region. In addition to infrastructure disruption, these heavy storms can bring tree damage, flooding, disruption to local economy, public health risks, and create increased demand on local government services and first responder capacity.

⁹ Abdollahian, N. et al. *Community exposure to potential climate-driven changes to coastal-inundation hazards for six communities in Essex County, Massachusetts*. U.S. Geological Survey open-file report. P27. 2016.

¹⁰ Schottland, T. et al. *Great Marsh Coastal Adaptation Plan*. National Wildlife Federation Northeast Regional Office, Montpelier, VT. 2017.



Rough Meadows Marsh 2018

Section 5 - Inventory of Lands of Conservation and Recreation Interest

The Town of Rowley has a rich heritage extending back to its founding in 1639, when stone walls, farms, fields and forests delineated property lines and land uses. The Town's historic common pasture is now protected as Hunsley Hills Conservation Area. Current farms provide produce and livestock that help feed the residents and the region. Those rural characteristics are an anchor of the Town's identity, and thus they are characteristics that are worth preserving and protecting for future generations to enjoy.

The salt marshes that comprise the eastern part of Town are another key characteristic of Rowley, and one that draws tourists from all over the country. The salt marshes provide important habitat for rare species of plants and animals and provide natural infrastructure to filter stormwater and protect the Town from flooding. Similarly, the Town's forests and fields provide recreational opportunities for residents as well as provide critical habitat and corridors for regional wildlife. The continued protection of these important natural resources is an important goal for the Town.

One of the most effective strategies to preserve the rural character of Town and its natural resources is through land protection. Land that is "permanently protected" is set aside for conservation or recreation purposes and cannot be developed, as stated in Article 97 of the Articles of Amendment to the State Constitution. The land is then protected in perpetuity unless five specific, and purposefully arduous, actions are met in order for the landowner to change land use and protection status. These actions include setting aside a replacement parcel of equal conservation value for permanent protection and garnering a two-thirds vote by the State legislature.

Land can be permanently protected by public, private, or nonprofit owners. Public owners include the Town, County, State, or Federal governments, who may acquire land with government funds, grants, gifts, donations, or tax title taking. As depicted in Figure 5.1, in the Town of Rowley, the Conservation Commission owns 42 parcels for a total of 832 acres, Essex County owns 2 parcels for a total of 8 acres, the State owns 38 parcels for a total of 1,468 acres, and the U.S. Fish and Wildlife Service owns 1 parcel for a total of 800 acres. Similarly, municipal lands for watershed or aquifer protection are often set aside as permanently protected open space. In Town, the Water Department owns 8 parcels for a total of 97 acres.

Lastly, nonprofits with land stewardship priorities may choose to permanently protect valuable parcels. In the Town of Rowley, over 600 acres of land are permanently protected by Essex County Greenbelt Association and Mass Audubon.

Lands can also be protected under special tax reduction programs. These programs, approved by the citizens of Massachusetts in constitutional amendments, require cities and towns to reduce tax assessments of farm, forest, and open space lands provided the owners make a commitment to keep their lands in one or more of those uses. Those uses include Chapter 61 - the Forestland Act, Chapter 61A - the Farmland Assessment Act, and Chapter 61B - the Recreational Land Act. If a landowner decides to sell or change the land use, the community

has the right of first refusal to acquire the land. These laws make an important contribution to the rural character of Town by helping to limit development on productive, scenic, and natural lands.

Many of these parcels have great recreational potential for activities including hiking, horseback riding, bird watching, and biking, though most are not currently accessible to the public. While enrolled in the program, the property owners enjoy reduced property taxes, which provides an incentive to maintain the lands as undeveloped farms, woodlands, and open space. However the incentive is often not enough to keep the land undeveloped. Many of the Town's subdivisions are located on land once protected under Chapter 61. Although the Town may exercise a right-of-first-refusal prior to a sale to a developer, only a modest acquisition fund is currently available. As a result, Chapter 61 lands continue to be sold to developers.

In the Town of Rowley, 18 parcels are covered under Chapter 61 (Forestry) for a total of 284 acres, 64 parcels are covered under Chapter 61A (Agricultural) for a total of 889 acres, and 2 parcels are covered under Chapter 61B (Recreational) for a total of 85 acres.

There are a considerable number of privately-owned parcels not protected under the Chapter 61 program that are of conservation interest. Many of the parcels are landlocked and forested. While these have not been fully inventoried, it is estimated that there are upwards of 30 parcels across Town. These parcels are currently not protected in any way and they are not included in the total acreage provided in Figure 5.1, however, the Open Space Committee will take notice if these properties become available for purchase or change ownership.

Lastly, the Town owns some parcels of unprotected land, including four with recreational use and potential: Eiras Park, Pine Grove Elementary School, Town Landing, and Town Common. The Town also owns three cemeteries: the Rowley Burial Grounds behind Town Hall (active), the Smallpox Cemetery on Trowbridge Circle (historic), and the Pulpit Rock Burial Ground off Leslie Road (historic).

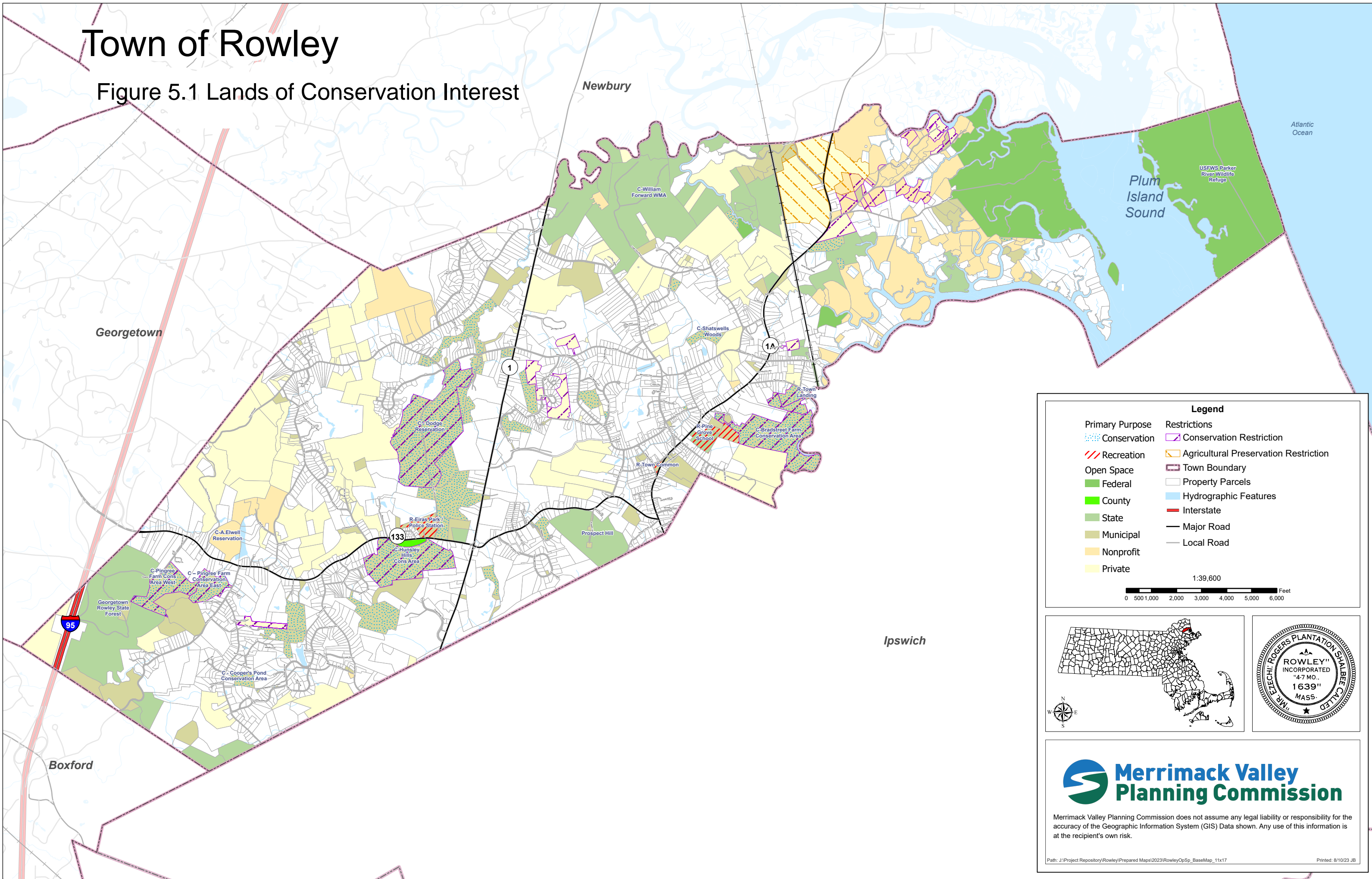
A summary of these lands of conservation and recreation interest, as well as their protection status and acreage, is provided in Figure 5.1. A full list of parcels by ownership can be found in Appendix A.

Table 5.1 - Protected and Unprotected Land of Conservation Interest

Ownership	No. of Parcels	Total Acreage
Permanently Protected Land		
Town of Rowley		
Held and Managed by the Conservation Commission	42	832.31
Held and Managed by the Water Department	8	97.06
Parcels Under Other Governmental Ownership		
Commonwealth of MA (DCR and DFWELE)	38	1,468.05
U.S. Fish & Wildlife Service	1	800.00
Essex County	2	8.49
Land Trust and Privately Held Properties		
Essex County Greenbelt Association	75	456.46
Mass Audubon	46	216.48
Private Properties with Conservation Restriction	13	391.08
TOTAL PROTECTED	225	4,269.93
Semi-Protected Land on Municipal Lands		
Open/Recreational	16	71.88
Pine Grove School	1	16.19
TOTAL SEMI-PROTECTED	17	88.07
Unprotected Land of Conservation or Recreational Interest		
Chapter 61 (Forest)	18	284.86
Chapter 61A (Agricultural)	64	889.23
Chapter 61B (Recreational)	2	85.03
TOTAL UNPROTECTED	84	1,259.12
TOTAL	326	5,617.12

Town of Rowley

Figure 5.1 Lands of Conservation Interest



Legend

Primary Purpose	Restrictions
Conservation	Conservation Restriction
Recreation	Agricultural Preservation Restriction
Open Space	Town Boundary
Federal	Property Parcels
County	Hydrographic Features
State	Interstate
Municipal	Major Road
Nonprofit	Local Road
Private	

1:39,600

0 500 1,000 2,000 3,000 4,000 5,000 6,000 Feet

Merrimack Valley Planning Commission

Merrimack Valley Planning Commission does not assume any legal liability or responsibility for the accuracy of the Geographic Information System (GIS) Data shown. Any use of this information is at the recipient's own risk.

Path: J:\Project Repository\Rowley\Prepared Maps\2023\RowleyOpSp_BaseMap_11x17 Printed: 8/10/23 JB

Environmental Equity

Environmental equity refers to equal access to open space, relative amount of tree cover near a person's residence, and other environmental quality characteristics a person is subject to based on that person's inclusion in a population identified as an environmental justice population. Environmental justice (EJ) populations are those with a high percentage of minority, non-English speaking, low income and foreign-born populations. According to the Mass GIS map showing EJ populations in Massachusetts, there are no such populations in the Town of Rowley.

Environmental equity also refers to the ability of all users, regardless of where they live in a community, to access open space and recreation land. Rowley is fortunate to have a distribution of open space and conservation land across the Town, providing good access to all residents. Given the rural nature of the community, there are no areas in Town where access to tree cover is difficult.



Rowley River Town Landing 1920



Rowley River Town Landing 2021

Section 6 – Community Vision

6A Description of the Process

A key component of the OSRP process was the re-evaluation of community goals established in the 2014 OSRP. To ensure that the goals of the updated plan would continue to reflect the interests of Rowley residents, the Open Space Committee actively sought community input for goal development through both a public survey and public meeting.

The survey was designed to gather input from Rowley residents regarding their current use of open space properties in Town as well as perceived barriers in accessing those properties. The survey identified the types of facilities that residents would like to see expanded or added to the Town's resources. The survey further identified preferences for the conservation of the Town's natural resources, including the type of natural resource and the mechanism for protection.

Town residents were notified of the survey through a flyer in a municipality utility bill and notices posted in a Town social media outlet. Survey respondents were able to access the survey via an online link or they could request a paper copy returned by post mail. Over a period of two months, the Open Space Committee collected 307 surveys. Of those who responded, 38% have lived in the Town of Rowley for over 20 years, 22% have lived in Town for 11-20 years, 15% for 6-10 years, 19% for 1-5 years, and 6% were new to Town. All ages (18-65+) were well represented among the respondents, with 16% being 18-35 years old, 30% being 36-50 years old, 34% being 51-65 years old, and 20% being 65+ years. The survey yielded helpful information in understanding community use and goals for the Town's open space properties.

The Open Space Committee also conducted an open meeting designed both to inform the public about the open space and recreation planning process, and to obtain input for the development of goals for the current submission of the OSRP. The notice of public meeting was posted at Town Hall and advertised on Rowley Community Media (RCM) by way of a community bulletin as well as two local social media groups (Rowley Talks and Friends of Rowley Open Space). Following a short presentation, meeting participants were asked their opinions about the present open space plan and to contribute their ideas about what future goals were important. Written comments were also accepted via post mail or email to the Conservation Commission.

6B Statement of Open Space and Recreation Goals

Based on the results of the survey and public meeting, the Town is prepared to support the following community-based goals:

1. Preserve and protect the Town's water resources
2. Preserve and protect the Town's natural resources and rural character, open space and forests
3. Provide diverse recreation opportunities for residents of all ages and abilities
4. Educate residents about the availability, use, and protection of the Town's open space and recreation resources

We envision a Town that can maintain its rural character, sustainably use and protect its natural resources, provide accessible and well-maintained recreational opportunities for its residents, and be a supportive partner in regional environmental projects and initiatives.



Dodge Sawmill on the Mill River 1910

Section 7 - Analysis of Needs

7A Summary of Resource Protection Needs

Open space in the Town of Rowley is threatened by new development and the infrastructure required to support an expanding population. Development can disrupt wildlife corridors, stress water resources, and destroy natural habitat. Land conservation is a key tool in protecting the Town's rural character, natural resources, and ecosystem services supported by those open spaces. When land is conserved, it can no longer be developed, although public access and permitted uses can vary across the conserved properties, depending on what natural resources are present on the land, the management practices of the landowner, and the terms of any conservation restrictions.

The Town of Rowley and its citizens recognize the need to preserve the Town's rural character and protect its natural resources through land conservation. In the recent survey, 98% of respondents felt that the Town should preserve open space in some way. Within the past few years, the Town has fulfilled its commitment to protecting valuable open space parcels through a variety of land protection strategies, including zoning bylaws (i.e. Open Space Residential Developments), conservation restrictions (i.e. Mehaffey Farm), and land acquisition (i.e. purchase of Dodge Reservation with CPA funds).

Looking forward over the next several years, the Town will continue to consider land protection opportunities proposed by local stakeholders or agencies. Of most interest will be those properties that promote or support clean water, flood mitigation, climate resiliency, habitat diversity, sustainable agricultural use, and recreation potential. At this point, however, the Town is not actively pursuing the purchase of additional space. Rather, the emphasis will be to maintain or improve existing open space properties and use good judgement to leverage opportunities for land acquisition and protection as they become available.

7B Summary of Community Needs

Residents of the Town of Rowley enjoy spending outdoor time on a regular basis. In the recent survey, over 40% of respondents stated that they participate in outdoor activities in Town weekly, with 17% enjoying daily time outdoors. During their time outdoors, respondents enjoy passive recreation such as walking or jogging (80%), hiking (75%), bird watching (45%), snowshoeing or cross-country skiing (30%), and mountain biking (23%). Based on write-in responses, the five most often visited properties in Town are Dodge Reservation, Rough Meadows (including adjacent dirt roads and open spaces), Georgetown-Rowley State Forest, Eiras Park, and Hunsley Hills.

Community members feel that it is important for the Town to maintain and support opportunities for passive recreation. A majority of those respondents (65%) feel there is a need for more multi-purpose trails that could be used for hiking, biking, snowshoeing, cross-country skiing, and horseback riding. The Conservation Agent and the Open Space Committee recently cut a new trail in Dodge Reservation (between trail markers 5 and 9) as well as a trail network in Pingree Farm off Boxford Road. The Town has also worked with the Bay Circuit Trail Committee to elongate the Bay Circuit Trail through Rowley. However, to complete the trail through Rowley, the Bay Circuit Trail Committee needs additional assistance in obtaining permission for access from property owners on either side of Bradstreet Farm. This could be a future focus of the Open Space Committee to increase trail access in Town.

Community members also felt that trails could be enhanced to improve passive recreation. For example, some community members suggested an educational nature trail that would allow for self-guided walks or hikes. Other community members suggested a paved, multi-use trail that would make outdoor recreation more accessible to strollers, bikers, and those with disabilities. Of note, the Parks and Recreation Committee in Town recently expressed interest in installing a paved, multi-use path around the Eiras Park facility. Any such project will require significant funding (likely in the form of a grant) and organizational support, so a partnership between the Open Space Committee and Parks and Recreation Committee could be instrumental in seeing the project to fruition.

Residents of the Town of Rowley also enjoy using Town facilities for active recreation, including parks and playgrounds (43%), boating (30%), fishing (20%), golf (15%), swimming (15%), and team sports (15%). Other outdoor activities identified by respondents included dog walking, horseback riding, road biking, hunting, participation in Town events, ice skating, nature photography, skateboarding, kayaking, and just enjoying being in nature. Those respondents who had interest in active recreation stated a need for facilities such as community gardens (23%), playground and picnic areas (22%), swimming areas (22%), ice skating rink (15%), tennis courts (13%), athletic fields (14%), and basketball courts (9%). Other suggestions included a fenced dog park, public access to hunting, a disc golf course, skateboard park, a splash pad, and more access to water-based activities. Respondents also stated a desire for improvements to current recreational programming (for both youth and adults) and improvements to youth sports fields. Interestingly, only about half of the plots at the current community gardens at Bradstreet Farm are being used, which demonstrates a disconnect between stated desires and actual use by the community. The Open Space Committee will consider options to better familiarize community members with currently available recreational resources.

The need for recreation facilities will only increase as Rowley continues to grow. In analyzing funding preferences for the northeast region, the 2017 Massachusetts Statewide Comprehensive Outdoor Recreation Plan (SCORP) revealed that support for maintaining, restoring, and improving existing facilities was a top concern for Massachusetts residents. The Town of Rowley Parks and Recreation Committee uses funds from leasing to ballfields at Eiras Park to offset the cost of maintenance. And currently, with the use of Community Preservation Act Funds, they are installing batting cages and implementing important safety upgrades to the playground at Eiras Park as well as repaving the basketball courts near Pine Grove School and installing six hoops. In years past, Veterans Park has been considered for expanded active recreation use. However, lack of access to water has limited the potential and the Town continues to assess how to best purpose the space.

Accessibility and awareness are important areas to address when considering the needs of a community with respect to recreational use of Town facilities. A majority of survey respondents (77%) stated that they have visited open space properties in Rowley, although only 23% of those respondents stated they used these properties regularly and were comfortable with their access and use. The majority of respondents stated that they are somewhat comfortable accessing and using open space properties in Town (53%), and 24% stated that they are not at all comfortable accessing and using open space properties or do not know where they are located.

The biggest barrier to community use of Town open space properties was stated to be unfamiliarity

with trailhead access or location of the properties (23%). Many of those respondents offered that access to more detailed information on the open space properties would be useful in precipitating future visits to open space properties in Town. Information that would increase comfort with accessing open space properties included the exact location of parking or trailhead, description of trail length and difficulty, a map of trails and property borders, and information on appropriate uses (i.e. leashed dogs, mountain biking, horseback riding, etc.). This information would help address the other barriers reportedly encountered: difficulty finding adequate parking (18%), inability to find trail map or guide (13%), concern about lack of trail markers or getting lost (8%), concern about encountering poor trail conditions or obstructions (6%), and not knowing what open spaces are available to the public (6%). A few community members also stated their concern for ticks and mosquitos (6%).

The Open Space Committee published a Town of Rowley Nature Trails brochure in 2018. Updated in 2021, the brochure highlights nine properties in Town with well-maintained trails that can be used for passive recreation. A map shows the location of each trailhead, and a property description lists the trailhead address, parking availability, applicable leash laws, and property characteristics. The brochures were distributed to Town Hall, the Public Library, local businesses, and posted on social media. The Town of Rowley website also has a list of open space properties and an accompanying trail map for each property. Additionally, the Open Space Committee offers community hikes and volunteer trail work days on open space properties to familiarize residents with the trail systems.

In order to expand the community's familiarity with the properties in Town, the Open Space Committee plans to keep sponsoring community hikes and volunteer trail work days. More extensive mapping of the existing trail network would help improve community members' familiarity and comfort with the open space properties. Efforts to expand familiarity to properties in town could extend beyond the woodlands and trails to the waterways. The Town does have a boat launch that accommodates kayaks and canoes at the Town Landing. New efforts to inform citizens about this opportunity may increase the use of the Landing by canoers and kayakers.

Another theme that emerged in discussing barriers to accessing Town open space properties was that of safety. Community members have stated a desire for more sidewalks and crosswalks so that open space properties can be more safely accessed on foot, and without the use of a car. Similarly, for those accessing open space properties by car, there were requests for improvements to parking areas, such as clear signage, better lighting, and more spaces. There were also suggestions for improvements to Town Common to make it feel safer and more accessible. Specific suggestions included improvements to sidewalks and the installation of more shade trees, benches, or swings. Lastly, many respondents mentioned that they prefer to not be alone while accessing trails and other open space properties. While acknowledging that this is not a barrier specific to the Town of Rowley, it was still often identified by respondents as a barrier to use and should be considered in future awareness campaigns and trail planning.

Our survey was designed to identify the needs of special populations in our community, specifically, teens (ages 18 and under) and the elderly (ages 65 and older). From our teen population, we heard a desire for 1) a skateboard park and 2) a seasonal ice-skating rink. Many other towns in the North Shore region have recently provided recreational opportunities for skateboarding (Bialek Park in Ipswich, Partridge Brook Park in Salisbury, etc.) and outdoor ice skating in winter (Endicott Park in Danvers), and our teens are hopeful for a similar opportunity in

town. These suggestions can be explored with the Parks and Recreation Committee.

From our elderly respondents, we heard a desire for 1) more information on which properties and recreational facilities were accessible by wheelchair, 2) more crosswalks around the Town Common, 3) places to sit and rest or read a book around Town Common, and 4) a more extensive network of sidewalks around town to make walking a safer activity. The Open Space Committee has acknowledged these needs, and plans to 1) update trail maps and brochures to reflect ADA accessibility and 2) identify opportunities to add benches and/or picnic tables to appropriate open spaces. The Committee plans to oversee the construction of ten benches along new trails that are part of the Falcon Ridge subdivision, adjacent to Dodge Reservation. Future goals may include adding benches to the Hunsley Hills property and increasing seating opportunities on the Town Common. There are currently benches at Rough Meadows and a bench and picnic table at Dodge Reservation.

In addition, adults with young children expressed the need for 1) more information on whether or not trails are family-friendly and 2) updated playground facilities that were accessible to infants and toddlers. In response, the Open Space Committee held a number of family-friendly hikes to help familiarize local residents with the trails. The events were not well-attended, so the Open Space Committee will continue to seek opportunities for information sharing regarding family-friendly open space resources. In addition, the Town has recognized the need to update the playground equipment and increase accessibility of the playground at Eiras Park and plans to submit a proposal to the Community Preservation Committee.

As part of this plan, all Town-owned land was inventoried for compliance with the Americans with Disabilities Act (ADA). The research found that public buildings, such as Town Hall, the Light Department, and Pine Grove School have been renovated according to ADA requirements. In addition, some efforts have been made to many of the Town's recreation facilities and conservation lands to better provide accessibility. For example, the recently constructed boardwalk at Pingree Farm Conservation Area is ADA compliant. Additionally, handicap parking has been created at Eiras Park, Town Landing, Pingree Farm Conservation Area, and Hunsley Hills Conservation Area. A project to renovate the playground at Eiras Park to provide accessible footing at play structures has been approved. Additionally, the Open Space Committee should work with the Town to ensure interpretive signs, accessible to disabled users, can be found at trailhead parking areas.

Lastly, some community members have expressed concern over perceived tax increases associated with land protection. Wary from recent tax increases due to municipal projects (i.e. remodeling of public safety facilities and Pine Grove Elementary School), it is unclear if the concern is for 1) decreased tax base when protected land is no longer taxed as residential land or 2) increased individual taxes to cover expense of land acquisition by the Town. However, a 2019 study of four Massachusetts communities found a higher expense-to-revenue ratio for residential land than for open space¹¹. Similarly, open space may increase the tax base by adding value to

¹¹ Murray, H. and Catanzaro, P. *Fiscal Impacts of Land Use in Massachusetts: Up-to-Date Cost of Community Services Analyses for Massachusetts Communities*. University of Massachusetts, Amherst, 2019.

properties adjacent to protected areas¹². Lastly, land acquisition by the Town is often supported by grant programs, such as the Community Preservation Act, that remove the burden of purchase cost from Town residents. Moving forward, it behooves the Town to set clear expectations around tax implications of land acquisition and the protection of open space.

7C Management Needs

Educating the public about open space and recreation issues, one objective of this plan, is critical to achieving an informed understanding about Rowley's resources, their unique qualities and characteristics, and the best ways to ensure that they remain protected into the future. Rowley cannot risk the loss of our resources simply because people are unaware of the alternatives or of how to treat what we have. One integral part of preserving the open space and recreation assets of Rowley is public patronage, and it is critical that the public using the facilities respect and help to maintain the resources. The Open Space Committee is committed to fostering this relationship with the community.

The 2021 OSRP includes numerous recommendations that require ongoing action. The responsibility for implementation of this plan (see Action Steps in Section 9), falls upon a number of Town boards, commissions and committees, all of which have many responsibilities pulling them in many directions. Therefore, this plan strongly recommends that the Open Space Committee be charged with spearheading and coordinating implementation of the Plan.

There is a need to expand the Town's maintenance capabilities. The Open Space Committee and volunteers currently maintain all the Town's trails. In 2002, the Town adopted the Community Preservation Act (CPA). Since that time, the Town has generated over \$710 thousand from CPA funds across 59 projects, including 14 open space projects for a total of \$2.4 million and 12 recreation projects for a total of almost \$1.1 million¹³. In 2020, the CPA distributed over \$56 million to CPA communities. Lack of available funding is not the primary challenge to expanding permanently protected open space and recreational opportunities. A major challenge is funding and staffing maintenance of existing properties and recreational opportunities.

¹² Reeves, T., Mei B., and Siry, J. *Review of the Effects of Conservation Easement on Surrounding Property Values*. Journal of Forestry v. 116 no. 6 pp. 555-562. 2018.

¹³ Community Preservation Coalition *Total Number of CPA Projects & Appropriations*



Stickney – Dummer Sawmill on the Mill River 1890

Section 8 – Goals and Objectives

The following community-based goals and objectives have been established and confirmed through the input of the public, consultation with Town boards and committees, and a needs assessments. Each objective is an initiative to be implemented by a Town board or committee, and together the objectives will work towards the achievement of the overarching goals. The goals and objectives of the 2021 OSRP are as follows:

Goal 1: Preserve and protect the Town’s water resources

- Objective 1.1: Strictly enforce existing water resource protection regulations
- Objective 1.2: Encourage safe residential practices to maintain water quality
- Objective 1.3: Protect and monitor well fields
- Objective 1.4: Partner with governmental and nonprofit entities engaged in water resource protection

Goal 2: Preserve and protect the Town’s natural resources and rural character

- Objective 2.1: Maintain active Open Space Plan
- Objective 2.2: Maintain active Open Space Committee
- Objective 2.3: Actively protect/acquire key parcels
- Objective 2.4: Encourage new and existing agricultural uses in Town

Goal 3: Provide diverse recreation opportunities for residents of all ages and abilities

- Objective 3.1: Maintain and improve opportunities for active recreation
- Objective 3.2: Maintain and improve opportunities for passive recreation
- Objective 3.3: Maintain and improve opportunities for people with disabilities and the elderly

Goal 4: Educate residents about the availability, use and protection of the Town’s open space and recreation resources

- Objective 4.1: Publicize Open Space and Recreation Plan
- Objective 4.2: Hold events on Town-owned parcels
- Objective 4.3: Increase public awareness of Town’s open spaces
- Objective 4.4: Educate public about importance of natural resources



Bradstreet Farm, a King's Grant Property, in 2007

Section 9 – Seven Year Action Plan

The Seven Year Action Plan is an important tool in enabling the Town to proactively plan for the protection and preservation of its natural resources and rural character. Its successful implementation depends on designated Town boards and committees to assume ownership and responsibility for specific action items that will help the Town achieve its overarching goals and objectives. The designated Town board or committee should assume responsibility for implementation of their action items, but support and assistance from other boards, committees, or local stakeholders will likely be needed to see the objective to fruition. In many cases, assisting entities have already been identified in the table.

The Open Space Committee should spearhead coordination and continual review of the Seven Year Action Plan. It can be expected that a staggered approach to critical actions may be needed to focus resources on plan implementation, and the Open Space Committee should steer designated boards and committees towards a successful project timeline.

With respect to land acquisition, it is recommended that the following types of land, all of which have defined Rowley for centuries and continue to be important for preserving the Town’s rural character and natural resources, be considered when land acquisition opportunities are presented:

- Farmland
- Hilltops
- Open space corridors
- River corridors
- Potential recreation areas
- Parcels with historic significance

In addition, it is recommended that the following criteria be used for evaluation of land that is being considered for acquisition:

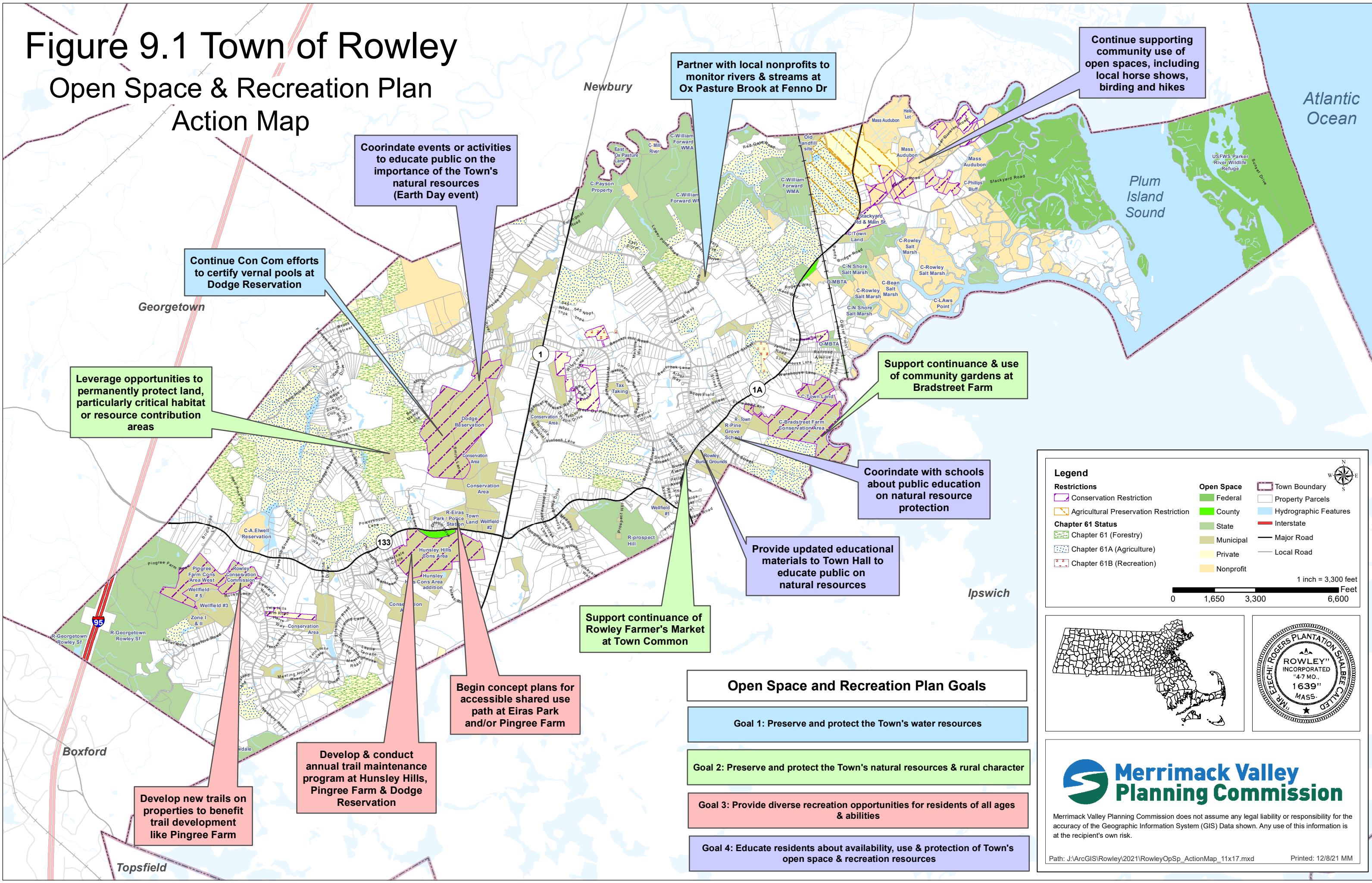
- At risk of development
- Owner willing to donate land or restrict development potential via Conservation Restriction
- Partially or fully of critical environmental concern
- Provides scenic views, especially from the roadside
- Protects well fields or other water bodies
- Offers potential for greenbelt, wildlife corridor, or trailways
- Includes riparian corridors or means of access to these areas
- Suitable for passive and active recreational activities
- Is of historical significance
- Contributes to contiguous areas of habitat

As discussed in Section 5, land protection comes in a variety of forms, including purchase (often through the use of a grant), a Conservation Restriction that prohibits development, or tax incentive programs that leave a property in private hands for continued forestry or agricultural uses. The Town of Rowley is one potential buyer, but other governmental entities and nonprofit organizations can also play an active role. Similarly, Town funding can be leveraged by many public and private sources.

The Seven Year Action Plan is depicted in Figure 9.1 and detailed in Table 9.1. Town boards and committees are designated by the following abbreviations:

Town Board or Committee	Abbreviation
Agricultural Commission	AG
Board of Health	BOH
Board of Selectmen	BOS
Conservation Commission	ConCom
Historical Commission	HC
Highway Department	HD
Merrimack Valley Planning Commission	MVPC
Open Space Committee	OSC
Planning Board	PB
Recreation Committee	RC
Water Department	WD
Zoning Review Committee	ZRC

Figure 9.1 Town of Rowley Open Space & Recreation Plan Action Map



Coordinate events or activities to educate public on the importance of the Town's natural resources (Earth Day event)

Partner with local nonprofits to monitor rivers & streams at Ox Pasture Brook at Fenno Dr

Continue supporting community use of open spaces, including local horse shows, birding and hikes

Continue Con Com efforts to certify vernal pools at Dodge Reservation

Leverage opportunities to permanently protect land, particularly critical habitat or resource contribution areas

Support continuance & use of community gardens at Bradstreet Farm

Coordinate with schools about public education on natural resource protection

Provide updated educational materials to Town Hall to educate public on natural resources

Support continuance of Rowley Farmer's Market at Town Common

Begin concept plans for accessible shared use path at Eiras Park and/or Pingree Farm

Develop & conduct annual trail maintenance program at Hunsley Hills, Pingree Farm & Dodge Reservation

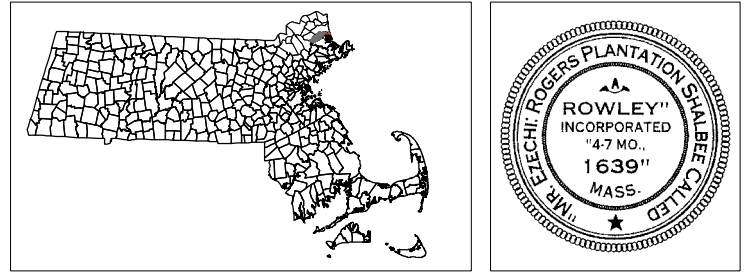
Develop new trails on properties to benefit trail development like Pingree Farm

- ### Open Space and Recreation Plan Goals
- Goal 1: Preserve and protect the Town's water resources
 - Goal 2: Preserve and protect the Town's natural resources & rural character
 - Goal 3: Provide diverse recreation opportunities for residents of all ages & abilities
 - Goal 4: Educate residents about availability, use & protection of Town's open space & recreation resources

Legend

Restrictions	Open Space	Town Boundary
Conservation Restriction	Federal	Property Parcels
Agricultural Preservation Restriction	County	Hydrographic Features
Chapter 61 Status	State	Interstate
Chapter 61 (Forestry)	Municipal	Major Road
Chapter 61A (Agriculture)	Private	Local Road
Chapter 61B (Recreation)	Nonprofit	

1 inch = 3,300 feet
0 1,650 3,300 6,600 Feet



Merrimack Valley Planning Commission

Merrimack Valley Planning Commission does not assume any legal liability or responsibility for the accuracy of the Geographic Information System (GIS) Data shown. Any use of this information is at the recipient's own risk.

Path: J:\ArcGIS\Rowley\2021\RowleyOpSp_ActionMap_11x17.mxd Printed: 12/8/21 MM

Table 9.1: Seven Year Action Plan

Priority Categories: Immediate, Short Term Long Term										
Objective	Action	Responsible Group	Source of Potential Funding	2022	2023	2024	2025	2026	2027	2028
Goal 1: Preserve and Protect the Town's Water Resources										
1.1 Strictly enforce existing water resource protection regulations (Immediate)										
1.1.1 Strictly enforce State and local Wetlands Protection Bylaws										
		ConCom	ConCom staff time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
1.1.2 Review zoning and rewrite as needed to identify opportunities to strengthen groundwater and surface water protection										
		PB, ConCom, WD	PB, ConCom	Annual	Annual	Annual	Annual	Annual	Annual	Annual
1.1.3 Reinstigate efforts to certify vernal pools and track locations with Conservation Commission										
		ConCom, OSC	ConCom, Volunteers	Annual	Annual	Annual	Annual	Annual	Annual	Annual
1.2 Encourage safe residential practices to maintain water quality (Immediate)										
1.2.1 Continue semi-annual hazardous waste collection										
		BOS, BOH	Town budget	Semi-annual	Semi-annual	Semi-annual	Semi-annual	Semi-annual	Semi-annual	Semi-annual
1.2.2 Maintain and improve marketing of septic system replacement loan program										
		BOH	BOH staff time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
1.3 Protect and monitor well fields (Immediate)										
1.3.1 Complete annual state of the water report										
		WD	WD staff	Annual	Annual	Annual	Annual	Annual	Annual	Annual

			time							
1.3.2 Conduct periodic testing of wells to ensure water is safe										
		WD	WD staff time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
1.3.3 Review and update (as necessary) water conservation and pollution control steps on Water Department website										
		WD	WD staff time	Annual	Annual	Annual	Annual	Annual	Annual	Annual
1.4 Partner with Governmental and nonprofit entities engaged in water resource protection (long term)										
1.4.1 Partner with local nonprofits (i.e. Parker River Clean Water Association) to monitor rivers and streams										
		ConCom, OSC, BOH	N/A		Every 2 years		Every 2 years		Every 2 years	
1.4.2 Partner with local nonprofits (i.e. Greenscapes, Parker River Clean Water Association, Eight Towns and The Marsh Coalition) to support public education programs on water resource protection										
		ConCom, OSC	ConCom staff time	As needed	As needed	As needed	As needed	As needed	As needed	As needed
Goal 2: Preserve and Protect Town's Natural Resources and Rural Character										
2.1 Maintain active Open Space and Recreation Plan (Immediate)										
2.1.1 Implement OSC action items of the 2021 OSRP Seven Year Action Plan										
		OSC		Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
2.1.2 Communicate with other responsible Town boards and commissions to determine their progress on action items of the 2021 OSRP Seven Year Action Plan										
		OSC	NA	Annually	Annually	Annually	Annually	Annually	Annually	Annually
2.1.3 Prepare 2028 OSRP										
		OSC	CPA, if needed					Start review	Complete draft	Get public input
2.2 Maintain active Open Space Committee (Short Term)										

2.2.1 Annually review OSC progress of 2021 OSRP Seven Year Action Plan										
	ConCom	N/A	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual
2.2.2 Recruit new OSC members as necessary to retain five active members at all times										
	ConCom, OSC	N/A	As needed	As needed	As needed	As needed	As needed	As needed	As needed	As needed
2.2.3 Hold an open meeting of the OSC at least quarterly throughout the year										
	OSC	N/A	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
2.3 Actively acquire and protect key parcels (Short Term)										
2.3.1 Leverage opportunities with private landowners, local nonprofits, grant programs, and the State to acquire land that should be permanently protected										
	ConCom, OSC	Grants	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
2.3.2 Review list of key parcels to protect; add or delete properties based on development, availability, etc.										
	ConCom, OSC	N/A	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual
2.3.3 Develop a process for the Town to ensure that the ConCom is notified of any OSRD parcel being brought to the Planning Board on for new acquisition of properties based on Open Space's goals to maintain the rural character of Rowley										
	PB, ConCom, OSC		Initiate		Review		Review		Review	
2.3.4 Maintain awareness of current inventory of resources (technical and financial) for protection of key parcels										
	ConCom, OSC	N/A		Initiate	Review	Review	Review	Review	Review	Review
2.4 Encourage new and existing agricultural uses in Town (Short Term)										
2.4.1 Support any proposed APRs on key agricultural parcels										
	OSC, ConCom, BOS, Partners	CPA, State APR program,	As needed	As needed	As needed	As needed	As needed	As needed	As needed	As needed

			partners							
2.4.2 Support continuance and use of community gardens at Bradstreet Farm										
		ConCom, AG	NA	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
2.4.3 Support continuance of Rowley Farmers Market on Town Common										
		BOS, AG	Annual Town budget	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
2.4.4 Encourage residents to consider sustainable actions (i.e. “No Mow May”, right to farm, limiting lawn watering, etc)										
		OSC	Volunteer time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Goal 3: Provide Diverse Recreational Opportunities for Residents of All Ages and Abilities										
3.1 Maintain and improve opportunities for active recreation (Short Term)										
3.1.1 Identify needs for new recreational facilities										
		RC	N/A				Review			
3.1.2 Identify location(s) for new recreational facilities										
		RC	N/A				Review			Review
3.1.3 Leverage opportunities for use or purchase of new recreational facilities										
		RC	CPA, Town override				Review			Review
3.1.4 Maintain and improve existing recreation facilities										
		RC	Annual town budget, CPA	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
3.2 Maintain and improve opportunities for passive recreation (Short Term)										
3.2.1 Identify Town parcels that would benefit from trail development, improvement, or maintenance										
		OSC, ConCom	Staff and volunteer	Annually	Annually	Annually	Annually	Annually	Annually	Annually

			time							
3.2.2 Develop new trails on properties identified under 3.2.1 above										
		OSC, ConCom	Staff and volunteer time	Annually	Annually	Annually	Annually	Annually	Annually	Annually
3.2.5 Develop annual trail maintenance program										
		OSC, ConCom	Staff and volunteer time	Develop	Review	Review	Review	Review	Review	Review
3.2.6 Conduct annual trail maintenance										
		OSC, ConCom	Staff and volunteer time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
3.2.5 Develop a multi-use trail (accessible to strollers and wheelchairs)										
		OSC, PR	Staff and volunteer time	Develop	Develop					
3.3 Maintain and improve opportunities for people with disabilities and the elderly (Short Term)										
3.3.1 Implement recommendation in Appendix C of this plan to improve handicap access at Town-owned parcels, including adding signage, handicap bathrooms, parking and limited trails										
		BOS, Handicap Commission, RC, ConCom	Staff time, CPA	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Goal 4: Educate Residents about Availability, Use and Protection of Town's Open Space and Recreation Resources										
4.1 Publicize Open Space and Recreation Plan (Immediate)										
4.1.1 Write and distribute press release when plan is completed and approved										
		OSC	N/A							Implement

4.1.2 Post plan on Town website										
	OSC	N/A								Implement
4.1.3 Place copy of completed plan at Library, Town Hall, and distribute to relevant Town boards and committees										
	OSC	N/A								Implement
4.1.4 Recruit volunteers to help with plan implementation										
	OSC, ConCom	NA	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
4.2 Hold events on Town-owned parcels (Long Term)										
4.2.1 Lead community hikes or volunteer trail work days on open space land										
	OSC, ConCom	Volunteer time	Annually	Annually	Annually	Annually	Annually	Annually	Annually	Annually
4.2.2 Participate in local and regional community events (i.e. Library Volunteer Fair, Essex National Heritage Area Trails and Sails)										
	OSC, HC, BOS	Volunteer time	As needed	As needed	As needed	As needed	As needed	As needed	As needed	As needed
4.2.3 Support the continuance of the Rowley Farmers Market										
	AG	Volunteer time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
4.2.4 Consider events that could be held on Town Common										
	BOS	Staff time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
4.3 Increase public awareness of Town's open spaces										
4.3.1 Develop, maintain, and distribute trail maps for open space land accessible to the public										
	OSC, ConCom	CPA, corporate sponsors, MVPC technical assistance	Nature trail brochure update	As needed	As needed	Nature trail brochure update	As needed	As needed	Nature trail brochure update	Nature trail brochure update
4.3.2 Provide list of open space land that is accessible to the public on Town of Rowley website										
	OSC	N/A	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

4.4 Educate public about importance of natural resources (Long Term)										
4.4.1 Coordinate events or activities to educate public about the importance of the Town's natural resources										
		OSC, ConCom	Staff and volunteer time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
4.4.2 Coordinate public education efforts with schools regarding importance of protecting the Town's natural resources										
		ConCom	Staff and volunteer time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
4.4.3 Provide published materials from State (i.e. DCR) or relevant nonprofits at Town Hall, Library, etc.										
		ConCom	Staff and volunteer time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
4.4.4 Coordinate public education efforts regarding the Town's natural resources, historic landmarks, scenic byways, and hiking trails.										
		OSC	Staff and volunteer time	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
4.4.5 Participate in local and regional community events										
		OSC, HC, BOS	Volunteer time	As needed	As needed	As needed	As needed	As needed	As needed	As needed



Fourth of July on the Common 1910



Chili Cook off on the Common 2015

Section 10 – Public Comment

Draft plans were distributed to the following boards on September 13, 2021:

- Rowley Board of Selectmen
- Rowley Planning Board
- Rowley Parks and Recreation Committee
- Rowley Conservation Commission
- Merrimack Valley Planning Commission

A plan was also made available in the Town Clerk's office and the Public Library for review by the following groups, each of which were also sent a letter requesting review and comment on the draft and inviting members to attend a public meeting held on September 27, 2021:

- Rowley Assessor's Office
- Rowley Board of Health
- Rowley Finance Committee
- Rowley Historical Commission
- Rowley Housing Authority
- Rowley Water Department
- Rowley Zoning Board of Appeals

An announcement was also made over social media alerting the public that draft plans were available for review on the Town website and that a meeting would be held on September 27, 2021 to present and discuss the draft plan.



Prospect Hill 1910

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Correspondence

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Letter to Betty Herrick from Bob Gouthro, Rowley resident and conservationist, dated January 7, 1998.

Letter to Bob Gouthro from Ken Simmons, Ph. D., Massachusetts Division of Fisheries and Wildlife, dated October 8, 1996.

Letter to Susan Jones Moses from Christina Vaccaro, Environmental Review Assistant, Division of Fisheries and Wildlife, dated December 21, 2001.

Interviews – 2003, 2021

Mark Fish, Rowley Recreation Committee
Andrea Cooper, Massachusetts Coastal Zone Management
Fran Sculley, Past Chairwoman, Rowley Board of Health
Hank Hale, Chairman, Rowley Board of Health
Kathy Leahy, Mass Audubon: North Shore
Jim Berry, Ipswich Open Space and Recreation Plan Committee
Dave Heacock, Essex County Greenbelt
Jack L. Cook, Chairman, Rowley Water Board
Wayne Castonguay, MA. Division of Marine Fisheries
Nancy Pau, USFWS, Parker River NWR
Justin Lesser, Ipswich River Watershed

Participants in 2021 Plan Update

Sonja Vincola, Open Space Committee (emeritus)
Alyssa King, Open Space Committee
Brooke Ten Eyck, Open Space Committee
Howard Vogel, Open Space Committee
Russ Liebe, Open Space Committee

Debbie Eagan, Town Administrator
Katherine Bento, Rowley Water Administrative Assistant
Karen Summit, Treasurer's Office

Sue Bailey, Town Accountant
Christopher Thornton, Planning Board
Libby Tucker, Agricultural Committee
Kirk Baker, Town Planner
Sean McFadden, Town Assessor
Tim Southall, Rowley Recreation Committee
Bill DiMento - Harbormaster

Administrative Support

Brent Baeslack, Conservation Agent

Photographs in this document courtesy of G. Robert Merry, Alan Rosco, Janet Morrissey and Brooke Ten Eyck

Appendices located in separate document:

Appendix A - Lands of Conservation Interest

Appendix B - Town of Rowley Open Space Survey

Appendix C - Letters of Support

Appendix D - ADA Self Evaluation