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The Road Not Taken

Robert Frost, 1874-1963

Two roads diverged in a yellow wood, And sorry I could not travel both And be one traveler, long I stood And looked down one as far as I could To where it bent in the undergrowth,

Then took the other, as just as fair, And having perhaps the better claim, Because it was grassy and wanted wear; Though as for that the passing there Had worn them really about the same,

And both that morning equally lay In leaves no step had trodden black. Oh, I kept the first for another day! Yet knowing how way leads on to way, I doubted if I should ever come back.

I shall be telling this with a sigh Somewhere ages and ages hence: Two roads diverged in a wood, and I-I took the one less traveled by, And that has made all the difference.

"We stand now where two roads diverge. But unlike the roads in Robert Frost's familiar poem, they are not equally fair. The road we have long been traveling is deceptively easy, a smooth superhighway on which we progress with great speed, but at its end lies disaster. The other fork or the road – the one less traveled by – offers our last, our only chance to reach a destination that assures the preservation of the earth."

- Rachel Carson, Silent Spring

"What a joy it is to feel the soft, springy earth under my feet once more, to follow grassy roads that lead to ferny brooks where I can bathe my fingers in a cataract of rippling notes, or to clamber over a stone wall into green fields that tumble and roll and climb into riotous gladness!"

- Helen Keller, author and activist

For generations, residents living along the banks of the Merrimack River have recognized their role as stewards of this source of beauty and sustenance. As the Town of Merrimac plans for its open space, natural resources and recreation needs, the protection of the Merrimack River and its watershed continue to be vitally important.

Watersheds and open space maintain natural ecological processes, sustain air and water resources, and contribute to the health and quality of life for people and wildlife. This Open Space and Recreation Plan highlights important natural resources in Merrimac, identifies areas that need special attention, and suggests ways for local government to serve as an agent of preservation and protection. This requires concerted and continuous effort on the part of Town officials, residents and landowners. This Plan addresses the Town's open space goals in ways that makes environmental, economic and fiscal sense for a small community.

1. Plan Summary

The Town of Merrimac values its historic small town character, the Town Forest, its vast farmland, and its location along the Merrimack River. These important natural and open space resources define the Town's past and frame its vision for the future.

The <u>2016-2023</u> Open Space and Recreation Plan identifies goals and a supporting action plan that will lead to an open space and recreation system that meets the needs of the Town for the next seven years. The Merrimac Open Space Committee developed the plan between 2014 and 2016. In addition to updating background information to reflect current conditions, the Committee distributed an Open Space survey and led a public forum to garner input about open space and recreation needs and priorities.

Key priorities identified through the survey and public forum include:

- Public access to the Merrimack River
- Protection of the Town's water supply
- Protection of farmland
- Development of more children's playground facilities
- Improved maintenance and development of existing playgrounds
- Additional land protection through conservation restrictions and fee acquisitions
- Scenic Road designation for Hadley Road
- Opportunities for youth groups to help maintain trails

Public input informed the development of a new action plan for the community designed to address the following five goals:

- 1. Preserve land that protects wildlife habitat and creates greenway corridors.
- 2. Foster a sense of community by providing open space resources for residents of all ages and abilities through accessible parks and recreation facilities and increased awareness of these resources.
- 3. Safeguard water resources for drinking water, habitat and recreation.
- 4. Support the continuity and vitality of agriculture in Merrimac.
- 5. Engage Town departments and residents in implementation of the plan and stewardship of Merrimac's natural resources, historic landscapes and landmarks.

Today, the Town is trying to balance housing growth and affordability, resource protection, open space and farmland conservation with its needs for a stronger tax base and infrastructure maintenance and improvements. The Action Plan included in this document was developed in recognition of these realities.

2. Introduction

2.1 Statement of Purpose

The 2016-2023 Merrimac Open Space and Recreation Plan builds on the original 1997 Open Space and Recreation Plan and the 2005-2010 approved update developed by the Merrimac Open Space Committee. Since 1997, the Town has worked with Community Opportunities Group, Inc. to develop a Master Plan, a new zoning bylaw, and a local wetlands bylaw that respond to many of the goals and priorities in the prior open space plans.

Now, ten years after completion of the last open space and recreation plan, the Open Space Committee set out to review its priorities, evaluate its accomplishments and setbacks, and address new resource protection and recreation needs. In developing a new seven-year plan, the Open Space Committee reached out to other committees and departments to help update information. The Committee used the Town web site and Facebook page to publicize the planning effort. This document presents a Seven-Year Action Plan that can be implemented within the Town's fiscal and human resource constraints, and that meets the Town's open space and recreation needs.

2.2 Planning Process and Public Participation

The Merrimac Open Space Committee began work on the Open Space and Recreation Plan update in the Fall of 2014. The Committee held fourteen publicly-posted meetings over the next 24 months. The Committee reviewed the status of the prior action plan and identified new needs. The goals and five-year action plan were revised based on the input received from responses to a community survey and comments received at a March 24, 2016 public forum. After completing a draft of the plan, the Open Space Committee submitted it for review, comment and approval to the Board of Selectmen, the Planning Board, and the Merrimack Valley Planning Commission.

The following people generously contributed their time and knowledge to produce this plan.

Merrimac Open Space Committee

Carrie Rennie, Chair Mel Briggle Dave Collins Sandra Venner

Merrimac Assessor's Office

Heather Roche, Clerk Joyce Clohey, Clerk – retired

Essex County Greenbelt Association

Vanessa Johnson-Hall, Assistant Director of Land Conservation

Merrimac Valley Planning Commission

Joseph Cosgrove, Environmental Program Manager Jerrad Whitten, GIS/IT Manager Kesley Quilan, GIS Analyst

In the next seven years, the Open Space Committee must solidify its role in Town, and engage citizens, Town boards and departments, volunteers, regional organizations and other partners in

implementation of the plan. Projects such as field and trail development and management, advocating for land acquisition, and planning for open space conservation, resource protection and recreation needs will require broad community support and involvement. The Committee must work to enlist new volunteers and engage with regional partners.

2.3 Accomplishments Since 2005-2010 Plan

The Town of Merrimac accomplished several notable steps in implementing the last Open Space and Recreation Plan. These include:

- In 2005, the Open Space Committee facilitated the acquisition of a conservation restriction and public trail easement from the Church Street Neighborhood Association. The Neighborhood Association had purchased a parcel in the neighborhood to prevent future development. The CR insures the preservation of the property in its natural state or for possible re-use as community gardens. It also affords public access to the McLaren Trail near Merrimac Square, and provides off-street parking for users of the property. A wooden sign has been posted to identify the trail access point on Church Street. A trail map informs users that the McLaren Trail leads to the Marshview Trail located on the New Hampshire border, where there are great views of a large wetland habitat.
- In 2008, the Town entered into an agreement with Essex County Greenbelt Association to manage a Conservation Restriction on the 110-acre Perkins Conservation Area. This land, purchased by the Town through two different acquisitions, consists of a diverse natural habitat and a network of public trails with scenic views of a large marshland area.
- The Open Space Committee replaced trail signs at Town properties to facilitate trail usage in the Town Forest, Perkins Conservation Area and McLaren Trail network. Map holders for Town Forest were replaced at kiosk locations off Winter Street and Cobbler's Brook Trail. Trail maps are now available at Town Hall and the public library.
- Essex County Greenbelt Association and other conservation organizations have sponsored public presentations on the landowner benefits of conservation restrictions, and reached out to key landowners to explain the same.
- The Town amended the Merrimac Zoning Bylaws to include provisions for Open Space Residential Development in the Agricultural Residential District. The bylaw encourages development that preserves open space in perpetuity and protects natural resources and wildlife habitat. The Planning Board approved two developments under this provision and is reviewing a third.
- A Public Outreach Bulletin is available in a pamphlet holder at the Town Hall titled 'Protect Merrimac's Waters!'. It outlines everyday Household Best Management Practices (BMPs) that residents can employ to help protect the quality of ground and surface waters, including Town wells, Cobbler's Brook and the Merrimack River.
- In 2007, the Town adopted general bylaws that regulate storm water management and land disturbance and illicit discharge detection and elimination.
- The Town developed an improved access point for the Merrimac River to be used for emergency purposes and for launching kayaks and canoes.
- A representative from the Open Space Committee worked with the Merrimack Valley Planning Commission to develop the Regional Bicycle and Pedestrian Plan.

- The Merrimac Garden Club plants and maintains the street islands on Broad Street, in the Town center and around the sign welcoming people to Town. Flowers and a small stone garden fence have been added in front of the Town's Soldiers Memorial in front of the Historic Sawyer House.
- The Town appointed new members to the Playground Committee and designated a new site to erect playground equipment, thus working toward providing better access to playgrounds throughout town.

3. Community Setting

3.1 Regional Context

Merrimac is a small town in Essex County in northeastern Massachusetts. The Town is bordered by Haverhill on the southwest, the state of New Hampshire on the northwest and north, Amesbury on the east, and West Newbury on the south (Map A.1). It is seven miles east of Haverhill, 37 miles north of Boston, 39 miles south of Manchester, NH and 78 miles south of Portland, ME. The Merrimack River and two regional highways (I-495 and Route 110) traverse the width of the southern part of Town, dividing the Town in half. Merrimacport is joined to the rest of Merrimac by three bridges over I-495.

Merrimac and the surrounding towns are located in the Southern New England Coastal Plains and Hills ecoregion of Massachusetts, as designated by the US Environmental Protection Agency (EPA). The Wisconsin Glacier that covered New England more than 120,000 years ago shaped the region's topography. The result is a diverse landscape and topography with drumlin hills and flat deposits of outwash. Much of the region was once cleared for industry along river corridors and for upland farming, but is vegetated today by post-agricultural southern New England hardwood forest.

Shared Resources

The communities in the region share many resources. The most significant is the 180-mile Merrimack River and its watershed. The Merrimack River watershed is New England's fourth largest, covering 5,010 square miles and including more than 200 cities and towns. More than 300,000 people use surface water from the Merrimack River for drinking water. Other communities in the region rely on the Merrimack's groundwater resources. There are unconsolidated sand and gravel aquifers along the Merrimack River and its major tributaries that can sustain well yields of more than 300 gallons per minute (gpm).

The EPA and the Merrimack River Watershed Council monitor the river's water quality and its flow. Development, an increase in impervious surfaces, non-point source pollution and combined sewer overflows (CSOs) threaten the water quality of the river south of Manchester, NH. (See Section 4.3: Water Resources for more information about water resources in Merrimac.)

The Merrimack Valley Planning Commission (MVPC) coordinates region-wide planning for 15 communities in the Merrimack Valley, including Merrimac. One of the agency's most significant responsibilities is planning for the region-wide transportation system, including development of the regional Transportation Improvement Plan (TIP), a five-year capital improvement and asset management program mandated by the federal government. Projects in Merrimac in the most recent TIP (endorsed June 2012) included resurfacing and reconstructing Route 110 in Merrimac Square. The construction started in Merrimac Square August 2014 and was completed at the end 2015.

MVPC also coordinates regional economic development planning. Every five years MVPC prepares a Comprehensive Economic Development Strategy (CEDS) for the region. The purposes of the CEDS are:

- to assess the state of the regional economy, the opportunities and threats posed by external forces, and the availability of partners and resources for economic development;
- to develop a vision and establish goals and strategic direction for the region; and
- to develop an action plan and performance measures. MVPC also provides other planning expertise and support to communities in the region.

The Essex National Heritage Commission is charged with preserving the region's historic, cultural and natural resources. Merrimac is one of 34 communities within the Essex National Heritage Area, a designation made by the National Parks Service. There are 49 National Heritage Areas in the country. The Commission manages several technical assistance and grant programs to help member communities with landscape and historic inventories, and preservation planning.

3.2 History of the Community

Merrimac, Amesbury, Salisbury and several southern New Hampshire towns once comprised Merrimack Plantation, a large colonial land grant. Amesbury incorporated in 1668 and included Merrimac. Starting in 1726, Merrimac was known as West Amesbury or West Parish. Merrimac became a separate town in 1876, taking about 50% of Amesbury's land and nearly 70% of its population.

In its early years, Merrimac was an agricultural settlement based on subsistence farming and cottage industries. Farming landscapes lined the valleys between Bear Hill, Brush Hill, Long Hill and Brady Brow Hill in Haverhill. Northern Merrimac retains much of its historic pastoral character today. Working farms are present in the northern part of the Town and the character feels more rural than suburban. The landscape and vistas along Bear Hill, Birch Meadow, Hadley and Highland Roads are the best examples of pastoral Merrimac.

In sharp contrast to the northern part of the Town, Southern Merrimac was an important seat of industry during the Industrial Revolution. There were at least 19 horse carriage shops in Merrimac Square and Merrimacport. The Town had a national reputation for producing fine coaches, broughams and victorias, and the industry employed nearly 50% of the Town. The villages retain excellent examples of colonial and Victorian structures that were built during this era of prosperity.

The Boston and Maine Railroad linked Merrimac and Newton Junction, NH in 1872. Today the old railway right-of-way is a popular recreation amenity known as Jay McLaren Trail.

In the early 20th century, Merrimac's carriage-makers began producing custom automobile bodies for Pierce Arrow, Lincoln, Cadillac, Marmon, Duesenberg and Packard. The industry flourished for about 30 years until Henry Ford's assembly line dramatically changed automobile manufacturing. The Great Depression of the 1930's fundamentally changed the economic activities of the entire region and Merrimac's unique industry became part of its past.

After the Depression and WWII, the Town was no longer an industrial center, but its historic character endured: a Victorian village sitting above a colonial riverfront in Merrimacport and agricultural lands to the north. Since the 1950s, Merrimac's growth has been predominantly residential, and Merrimac has become a bedroom community. The Town's workforce commutes to Haverhill, Boston and job centers along I-95 and I-495. Today, the Town struggles to balance housing growth and affordability, resource protection, open space and farmland conservation with its needs for a stronger tax base and infrastructure improvements.

Table 3.1: Comparison Population Statistics

CENSUS 2010	% Change 2000 - 2010
-------------	----------------------

Community	Population	% under 18	% Over 65	% Change	% Change	% Change
				Total	Persons < 18	Persons >65
				Population		
Amesbury	16283	22.4	12.4	-1.0	-3.7	0.4
Georgetown	8183	27.0	11.3	10.0	-1.6	1.9
Groveland	6459	24.7	15.1	6.9	-4.9	4.8
Haverhill	60879	23.0	12.2	3.0	-2.7	0.6
MERRIMAC	6338	24.3	13.3	3.2	-4.7	2.3
Newbury	6666	22.6	13.9	-0.8	-4.5	3.2
Newburyport	17416	20.8	16.5	2.0	-0.1	2.5
Rowley	5856	24.4	11.5	6.2	-3.6	2.1
Salisbury	8283	19.1	15.2	9.32	-4.5	3.3
W. Newbury	4235	26.9	11.4	2.0	-3.1	2.6

^{**} The Merrimack Valley Planning Commission June 30, 2013

3.3 Population Characteristics

Working-class and upper-middle-income households, life-long residents and newcomers, young families and seniors all give Merrimac the feel of a down-to-earth small town that welcomes everyone. Merrimac is home to a large number of families with children, as well as a growing population of senior residents.

The completion of I-495 in the 1960s facilitated travel between communities outside the Route 128 corridor, and expanded access to broader housing choice for those commuting to work inside the Metropolitan Boston area. This improved regional access resulted in population growth throughout the Merrimack Valley, including in Merrimac. However, the Merrimac's population density was 269.1 persons/square mile in 2010, far below the 1,509 per square mile population density of Essex County as a whole. This lower density reflects that the Town has retained its rural character, and that the Town's zoning encourages single-family housing, rather than more dense development patterns.

Table 3.1 shows population change by age cohort for Merrimac between 2000 and 2010. Merrimac's population grew to 6,638 in 2010, an increase of 3.2% from 2000. In comparison, the Merrimack Valley region's population increased by 4.97% over that time period (with decreases only in Amesbury (-1%) and Newbury (-0.8%)). In 2010, the median age in Town was 43.5 years.

After an influx of families with school children during the 1990's, Merrimac's average household size decreased during the 2000s. Two factors account for this change. First, between 2000 and 2010, the number of non-family households grew at a somewhat faster rate than the number of family households. Second, the average household size in Merrimac decreased from 2.73 in 2000 to 2.61 in 2010. Household size is projected to decrease to 2.17 by 2030.

As shown in Table 3.2, Merrimac falls in the middle compared to other towns in the region in terms of the percentage of households with children under 18 (35.3%). In 2000, children under 18 comprised 29% of the population, decreasing to 24.3% in 2010. This change has resulted in a decrease of 14% in school enrollment in Merrimac between 2005-2012. The current and projected decreases in the number of residents under age 18 should result in less demand for recreational facilities aimed at this cohort.

The Town has the third highest percentage of households with persons over 65 (26.8%) among municipalities within the region. This higher concentration of seniors indicates the Town should ensure open space and recreation facilities are accessible for this population.

Table 3.2: Comparison Profile of Households 2013

Community	Total households	% Household with children	Non-family Households	% Households
		< 18 years		> 65 years
Amesbury	6642	31.5	37.3	21.2
Georgetown	2937	40.9	22.0	22.9
Groveland	2346	36.2	22.8	30.0
Haverhill	24150	32.1	37.2	22.2
MERRIMAC	2417	35.3	28.0	26.8
Newbury	2694	31.1	29.1	26.7
Newburyport	7622	26.6	41.8	26.5
Rowley	2155	36.1	24.5	21.7
Salisbury	3441	26.6	38.2	28.4
W. Newbury	1508	38.3	17.7	22.5

^{* 2013} Merrimack Valley Comprehensive Economic Development Strategy – Merrimack Valley Planning Commission June 30, 2013

Socioeconomic Context

Merrimac's Socioeconomic characteristics are similar to the rest of the region but vary somewhat from statewide medians. In Merrimac and the Merrimack Valley, 30.8% of residents over 25 years of age have received a bachelor's or master's degree or higher, compared to 33% of citizens statewide. The median age in Merrimac was 43.7 years in 2010, compared to the state median age of 39.1 years. In 2011, the median household income in Merrimac was \$73,840, a 26% increase from 2000. Merrimac's median household income of \$73, 849 is roughly at the middle of the immediate region and higher than the \$62,859 median for the state. However, Merrimac has only 0.7% of households with an income over \$250,000, compared to 3.8% for the state as a whole.

The number of housing units in Merrimac increased 20% between 2000-2011. A total of 5.8% of these units are classified is affordable by the state (see Table 3.3 below).

Table 3.3 Affordable Units by Community (as of May 2012)

By MVPC 2012 Performance Report

Community	2010 Census Year Round Housing Units	Total Developed units	Subsidized Housing Inventory Units	%
Amesbury	7,041	865	501	7.1
Groveland	2.423	132	75	3.1
Haverhill	25.557	2247	2,025	7.9
Lawrence	27,092	3851	3,832	14.1
Merrimac	2,527	403	147	5.8
West Newbury	1.558	86	32	2.1

The number of employed Merrimac residents was 3,845 in 2016¹, a 15% increase from 2010, when the total number of employed residents was 3,344. According to the Massachusetts Executive Office of Labor and Workforce Development, there were 752 locally-based jobs in Merrimac in 2010. These numbers indicate that many Merrimac residents worked outside the Town.

In 2012, the US Economic Census reports that there were 94 firms in Merrimac.² The number of firms compared to the number of jobs in the Town reveals that most local businesses are small employers or self-employed individuals. The sectors with the most employees in 2016 were construction and computer and scientific equipment manufacturing.³ While there are only a few farms, the continuation of these farms in agricultural uses is an important goal for the community. The largest employer is the Town of Merrimac. The Town is not zoned to attract large employers.

¹ Massachusetts Executive Office of Labor and Workforce Development

² 2012 Economic Census

³ City-Data.com

3.4 Growth and Development Patterns

Patterns and Trends

Map A.2 shows Merrimac's current zoning. Current zoning, which favors single-family residential development, shaped recent growth and development patterns, and will guide future trends. The current map reflects changes made over the past fourteen years in response to recommendations from the 2002 Master Plan. (See Section 2.3 Accomplishments Since 2005-2010 Plan.)

Between 1980-2002, the housing stock in Merrimac increased by 38%, consuming 65% of the open space that existed in 1980. Since 2000, the number of housing units increased by 10.2%. From 2005-2013, Merrimac issued building permits for 118 new dwelling units. Almost all were for single family homes. Much of this development occurred on Approval Not Required, or "Form A", lots. These are lots with frontage on existing streets, making subdivision approval not required under Massachusetts' law. Exceptions include the Cobblers Brook Condominium development on Broad Street (Chapter 40B), an "Over 55" townhouse developments on East Main Street (Route 110), two additional apartment buildings in a complex on West Main Street (Chapter 40B), and infill construction of duplexes near the Town center. Each of these multifamily developments has access to public transportation.

Thirty-four percent of housing units were built before 1939 and 40% were built after 1980, including over half of Merrimac's single family homes. The completion of I-495 triggered a wave of residential growth, and each decade since its completion has seen a relatively high rate of housing production, from a low of 225 units in the 1960's to a high of 351 units in the 1980s. Three decades ago, Merrimac experienced a surge of condominium development that produced 92 of the Town's 128 condominiums.

In addition to three Chapter 40B developments, the Merrimac Housing Authority manages 48 public housing units and provides housing assistance to low income residents through the Housing Choice Voucher Program based on income guidelines established by HUD. Subsidized housing assistance also is provided to low-income disabled individuals at the Merrimac Residence on Locust Street and the Bridgewell Merrimac Residence on Church Street, each consisting of 10 units. Horace Mann Educational Associates Shared Living Program provides adult day activities in several locations in Merrimac and living arrangements in surrounding communities. Merrimac has no environmental justice communities as defined by the Commonwealth.

Infrastructure

Transportation: Merrimac and the surrounding region are accessed by three main modes of transportation: 1) major highways located within a few miles of Merrimac (State Route 110, and Interstate 495); 2) the Massachusetts Bay Transportation Authority (MBTA) commuter rail services (Haverhill and Newburyport stations), and bus service to the station and within Town provided by the Merrimac Valley Transit Authority; and 3) trails, paths and walkways providing pedestrian and bicycling opportunities. The closest airports are located in Manchester, NH and Boston.

Several major arterial, collector and local roadways comprise Merrimac's transportation network. Sidewalks are located principally in the downtown area. Pedestrians, cyclist, horses, cross-country skiers and snowmobilers use several local trails. Many of Merrimac's roads are winding, rural and lined with mature trees. New house lots, subdivisions and road widening or straightening projects threaten the character of these streets.

Public Water Supply: The Merrimac Water Department supplies drinking water to approximately 90% of the Town. Most of its customers are residents. There are two tubular well fields in Merrimac: Bear Hill and East Main Street, the latter of which also has a gravel packed well. The Bear Hill wellfield produces 50,000 to 400,000 gallons per day (gpd) and the East Main Street wellfield produces 50,000 to 250,000 gpd. A greensand filtration plant removes naturally occurring iron and manganese from water pumped from the East Main Street wellfield. The Water Department controls 19 miles of distribution mains and two storage tanks with a combined capacity of 1.42 million gallons. In 2014, Merrimac's drinking water met all applicable health standards of the state and federal governments.

The water withdrawal permit for Merrimac's operating wells is 360,000 gpd. Over the past three years, the average day demand in Merrimac has approximated 461,784 gpd. In short, Merrimac consumes about 1.28 gallons of water for every one gallon of authorized withdrawal. In 2004, Merrimac asked the Massachusetts Department of Environmental Protection (DEP) to increase its withdrawal permits from 0.36mgd in 2004 to 0.76 mgd in 2024. The request was not granted at the time, and the Town is still pursuing an increase to its withdrawal permits.

Sewer System: The Town's wastewater treatment plant is located on Federal Way. The Town constructed the system in 1980. It serves Route 110 and Merrimac Square, most of Merrimacport and Little Pond Road and areas around Lake Attitash. In 2015, the Merrimac wastewater facilities provided wastewater collection, pumping, treatment and disposal service to approximately 4,700 people from approximately 1,880 service connections.

In 2003, the 25-year old sewer system was placed under a Consent Order by DEP because it had reached 85% capacity. In response to the Consent Order, Merrimac took two significant steps. First, the Town approved \$1.6 million for sewer system upgrades in July 2003. These improvements have been completed.

Second, the Merrimac Master Plan Implementation Committee worked with consultants to draft a Sewer District Bylaw that would achieve two goals: 1) preserve the capacity of the Town's sewer system, and 2) use the sewer system to help guide growth and development patterns. Town Meeting adopted the Sewer District Bylaw in 2004. The Bylaw establishes a Sewer Service Area and encourages all properties within the district to connect to the sewer system. The purpose of the Sewer Service Area is to allocate capacity to the areas of Merrimac targeted in the Master Plan for new and denser development. Without the bylaw, the Sewer Commission would be obligated to provide sewer service to applicants on a first-come, first-served basis anywhere in Town.

3.5 Long-term Development Patterns

The State forecasts the population of Merrimac will remain relatively stable through 2030, and increase by only 5% by 2040.

The 2002 Master Plan included a build-out analysis. The build-out analysis estimated the amount of new development that could occur in Merrimac if all developable land was built to capacity, as allowed by the zoning bylaws at that time. The analysis defined buildable land as:

- Vacant parcels, assessed as developable or potentially developable, and of sufficient size to support one or more homes.
- Vacant residential parcels held in common ownership.
- Underdeveloped residential parcels, i.e., parcels with both an existing home and more land than required to meet minimum lot size requirements.
- Vacant and underdeveloped commercial and industrial parcels, i.e., parcels with an existing structure and additional (unused) development capacity.

- Land in the Chapter 61 tax program.
- Parcels owned by non-profit organizations that are not deed-restricted.

Table 3.4 shows the results of the build-out analysis. In 2002, there were 1,514.2 acres of developable land in Merrimac, the majority of which were zoned for single-family residential use. The analysis estimated that the undeveloped land in Merrimac could support 622 new housing units, 1.77 million square feet of commercial development, and 658,000 square feet of industrial development. This development would support a population increase of 1,711 people, including 498 school-aged children, an increase in water usage of over 330,000 gallons per day, and an increase in total municipal waste of 877 tons/year (of which 253 would be recyclable or compostable.) A total of 14.1 miles of new road would be needed.

Table 3.4 Build-Out Forecasts for Merrimac

Total Developable Land Area (Acres)	1,514.2
Residential	1,389.1
Commercial	83.2
Industrial	41.9
Total New SF Homes	622
Total Commercial Buildable Floor Area (Sq. Ft.)	1,766,269
Total Industrial Buildable Floor Area (Sq. Ft.)	657,590
New Population	1,711
School-Aged Population	498
Increase in Water Usage (Gal./Day)	330,244
Total Municipal Solid Waste (tons/year)	877
New Roads (miles)	14.1

Source: Merrimac Master Plan, 2002

The development potential identified through the build-out analysis would strain existing recreational facilities. New development and roads would result in an increase in impermeable surfaces, potentially leading to increased issues related to run-off and pollution.

Based in part on the results of the build-out analysis, the Master Plan recommended adoption of a new zoning bylaw to reinforce the Town's historic rural-village land use pattern. In response, the Town adopted a comprehensive new zoning bylaw in 2004 with minor amendments since then, to provide a blueprint for growth and to institute growth management practices. The purposes of the bylaw are:

- to guide development toward areas of the Town with adequate public infrastructure and utilities, and preserve the rural quality of outlying areas;
- to control the impacts of future development on the quantity and quality of the Town's drinking water resources;
- to protect natural and historic resources, farmland and forests;
- to encourage housing for household at all income levels;
- to provide for a variety of business and industrial uses; and
- to improve and beautify the Town.

The majority of Merrimac's vacant residential land is in the Agricultural Residential District, where the minimum lot size is 82,000 sq. ft unless it is built as an Open Space Residential Development which has no minimum lot size. The Town's zoning bylaw allows multifamily housing and mixed-use development where sewer service is available along Route 110 and around the Town Center.

4. Environmental Inventory & Analysis

4.1 Geology, Soils and Topography

Shaped by the Wisconsin glacier that covered New England during the Pleistocene Epoch over 120,000 years ago, Merrimac's topography is strikingly diverse, with a landscape and soil composition created by glacial drift. Merrimac's undulating terrain varies from sea level to 315 feet above sea level. Red Oak Hill, a smooth, elongated glacial hill called a *drumlin*, is the highest point. Cobbler's Brook, East Meadow River and the Back River have cut broad valleys through the Town's glacial outwash plains. These tributaries flow southeasterly across Town to the main stem of the Merrimack River.

As the glacier began to recede from the area 18,000 years ago, it deposited alluvium and glacial till. Today, Merrimac's landscape and its underlying soil structure are composed of clays, sands, silts and gravel, all laid over pre-glacial (Paleozoic Era) bedrock. Map A.3 displays the location of these different soil structures within the Town.

Three specific soil series have been identified in Merrimac: Hinckley-Windsor-Merrimac, Paxton-Woodbridge-Montauk and Canton-Charlton-Sutton. Hinckley-Windsor-Merrimac is found in the eastern part of Town in a 0.5-mile band running from the New Hampshire border to the Merrimack River. Another deposit is located near Brady Brow Hill. This deep soil is well-drained and is found in gravelly fluvial deposits. Hinckley soils have few limitations for development. They are associated with aquifer recharge. Their sandy composition with rapid permeability means that groundwater can become contaminated from septic systems and other pollutants. For this reason, most of this area of Merrimac is sewered.

Paxton-Woodbridge-Montauk soils are located along the western shore of Lake Attitash and extend to the New Hampshire border in a 0.25-0.5 mile band. A second deposit extends from approximately Battis Road and Winter Street to the Merrimack River. It is a very deep, well-drained soil formed in compact glacial till derived mostly from schist, gneiss and granite. Paxton and Woodbridge soils are well-suited for woodland and cropland. Septic tanks should not be sited here because leaching fields cannot readily absorb the effluent. Subsurface drainage may be a problem with these soils because of a perched seasonal highwater table.

Canton-Charlton-Sutton soil is found in central Merrimac in a 0.5-1 mile band from the New Hampshire border to the Merrimack River. It is a deep, well-drained, loamy soil laid over sandy till. It has no major limitations for development. Large surface and subsurface stones and boulders may be present and erosion could be a problem during disturbance.

4.2 Landscape Character

Merrimac's beauty stems from the juxtaposition of its diverse natural landscape with the quality of the built environment. Map A.4 depicts the unique features that make up the Town's landscapes. The Town's glacial history may be seen throughout the Town in the form of eight drumlin hills, floodplain lowlands and kettle-hole ponds. Victorian villages and working agricultural landscapes characterize the beauty of the Town's buildings and land use patterns.

The dominant landscape feature in southern Merrimac is the Merrimack River. The river corridor is significant environmentally and aesthetically and is one of the Town's most important resources. The tributaries that feed the Merrimack River have cut valleys through the Town's steep hills creating dramatic views that characterize its visual identity. Northern Merrimac is characterized by

working landscapes bordered by wetlands, hills and forested areas. The Town's natural environment has influenced the built environment. Route 110 and Interstate 495 parallel the Merrimack River, crossing the flat lowlands north of the river. The Town's north-south roads follow the contours of the major tributaries and are oriented northeasterly. Merrimacport is an early 18th century village on the Merrimack River. Merrimac Square is located at the junction of Route 110, School Street and Church Street. Merrimacport and Merrimac Square are the oldest parts of Town, with a historical mix of uses and densely developed neighborhoods. Since 2015 a new rotary has been designed in Merrimac Square to help with traffic flows.

4.3 Water Resources

Map A.5 depicts the Town's water resources, including rivers, lakes, streams, wetlands, and aquifers, as well as flood hazard areas.

Watersheds

The Town of Merrimac lies completely within the Merrimack River Watershed. The watershed provides drinking water for several municipalities in the Valley. Therefore, permitting decisions by Town boards and commissions in each of the communities within the watershed affect the drinking water and habitat of the people and wildlife in other municipalities. Since Merrimac does not have the legal authority to regulate activities throughout the watershed, the Town's water resources are vulnerable to decisions made in other municipalities. (For more information about the watershed and its importance to the region, see Section 3.1 Regional Context.)

Surface Water, Rivers and Brooks

Merrimack River: The Merrimack River runs along the entire southern edge of Merrimac and forms the Town boundary with West Newbury. The River flows 180 miles through central and southern New Hampshire and northern Massachusetts, and is a critical resource for wildlife and people. The river becomes tidal below Haverhill for 22 miles before it reaches the sea.

The tidal nature of this section of the Merrimack River is tremendously important to spawning fish and the species that prey upon them. Anadromous fish like Atlantic salmon spend most of their adult lives in the Atlantic Ocean and migrate up the Merrimack River to spawn. After one to three years, the fish mature, migrate downstream to the ocean and the cycle begins again.

The Massachusetts Division of Water Pollution and Control classifies Merrimac's section of the Merrimack River as "Class B", or water quality adequate to support fishing and recreation. Here, the river may be used for recreational boating and swimming (although no public beaches exist), water skiing and fishing. While there is very little buildable land left on the riverfront, incremental development on existing lots is likely to continue, along with the placement of private docks and floats. In Merrimac, public access is limited because most riverfront land is privately owned, including one private marina. The Town owns several small parcels, including Creek Landing, Carey Memorial Park, Cottles Landing and the Duck Hole. Currently, these sites only provide opportunities for passive recreation. The closest boat ramps are in Amesbury and West Newbury.

Small streams and brooks can be found throughout Merrimac. The largest of these are the East Meadow River and Cobbler's Brook, which run into the Merrimac River, and the Back River, which runs into Lake Attatish.

Cobbler's Brook: Cobbler's Brook is a 3.7 mile perennial stream that originates between Highlands Hill and Red Oak Hill. It runs through the center of Merrimac to the Merrimack River.

The shoreline of Cobbler's Brook is extensively developed with residential uses, light manufacturing, agricultural uses, road crossings and culverts, the McLaren Trail, and the former municipal landfill.

Contaminates are monitored through periodic groundwater testing. In a 1990 study, the Massachusetts Department of Environmental Protection (DEP) concluded that water quality in Cobbler's Brook was Class B. However, tests conducted below the Mill Street Bridge found water quality to be "unknown toxicity" where a small feeder stream carried discharge from an adjacent metal finishing company. The DEP report also suggested that storm water run-off may be a source of non-point source pollution in Cobbler's Brook. Remediation is underway.

In response to the report, the metal finishing company identified in the DEP study was connected to the Merrimac Wastewater Treatment Facility and later it ceased operations and closed. Other report recommendations included developing a public trail around Walker's Pond, establishing five water quality monitoring stations, and periodic checks on noted oily sheens and PVC storm pipes. The report also recommended that Walker Pond be further investigated where unstable, steep banks, algae blooms and rusty scum indicate severe erosion problems.

Upon completion of the study by DEP, the Massachusetts Department of Environmental Affairs (EOEA) implemented the Merrimack Watershed Initiative Program (MWIP) to study the conditions of Cobbler's Brook and several other tributaries. In 1999, MWIP "Stream Team" surveyed the entire length of Cobbler's Brook and prepared a Shoreline Survey Report and Action Plan. It documented physical conditions and identified issues such as trash, debris, vegetation, beaver dams, water clarity and erosion. Shorelines assets like wildlife habitats and scenic points were included.

The Massachusetts Executive office of Environmental Affairs (EOEA) prepared the *Merrimack Valley Watershed Action Plan*, 2002-2007. The purpose to this plan is to guide state and local environmental actions within the Merrimack River watershed and to implement the goals of the Massachusetts Watershed Initiative including:

- improving water quality;
- restoring natural flows to rivers;
- protecting and restoring biodiversity and habitats;
- improving public access and balanced resource use;
- improving local capacity; and
- promoting a shared responsibility for watershed protection and management.

There are two other un-named, intermittent streams in the vicinity of Cobbler's Brook that originate between Route 110 and Interstate 495 and feed the Merrimack River. Both have steep gradients where they enter the river, and road run-off and traffic accidents involving hazardous materials are threats to water quality.

The Back River: The Back River originates in southern New Hampshire and feeds Lake Attitash in northeast Merrimac. It is used for canoeing and fishing. A report prepared by Camp Dresser and McKee indicated that nutrient loads are particularly high along the Back River, but concentrations vary between sample monitoring. Agricultural run-off and non-point source pollution are threats to water quality here and further downstream at Lake Attitash.

Lakes and Ponds

Lake Attitash: Lake Attitash is a 360-acre kettle hole pond in northeast Merrimac. Melting boulders of ice deglaciation formed kettle hole ponds, and they are fed by fresh water springs. The Back River empties fresh water into Lake Attitash.

Lake Attitash is in the Powwow River sub-watershed. Before the Powwow River was dammed, Lake Attitash drained through present day Market Square in Amesbury. The Powwow River dam supplied water for mills located near the rapids around Market Square. After the hydroelectric power stations were no longer needed to fuel the mills, people began building summer cottages along the banks of Lake Attitash in Merrimac and Amesbury. These homes have subsequently been converted to year-round homes and vacant sites have been developed resulting in moderate-high density residential development along the shoreline.

The Lake is very scenic and its offers many recreational opportunities. People enjoy swimming, boating, water skiing and fishing in the summer, and ice-skating and ice fishing in the winter. The Massachusetts Department of Environmental Management (DEM) operates a public boat ramp on the Lake, and a parking area providing access to the Lake. New England Game and Fish Magazine has ranked Lake Attitash in the top two places to fish for Largemouth Bass in Massachusetts. Brown Bullhead, Chain Pickerel, Northern Pike, Pumpkinseed and White Perch are also found here. In its Sept 29, 2010 issue, Game & Fish Magazine listed Lake Attitash in an article entitled, 'Our Bass Pros Pick Hotspots.'

Lake Attitash is designated Class A. The Lake is hyper-eutrophic with high nutrient levels, noxious plants and low levels of dissolved oxygen. Water quality has deteriorated over the last decade because of excessive nutrient loading. Non-point source pollutants such as lawn and agricultural fertilizer and storm water run-off are the likely causes. The threat of non-point source pollution is greatest after heavy rain or snow. Storm water drainage pipes in Merrimac and Amesbury discharge directly into Lake Attitash and there are no water treatment or sedimentation filters. Vegetation and tree removal along the shoreline, as well as extensive impervious surfaces such as roofs, driveways and the DEM boat ramp parking lot, exacerbate the run-off problem. Grassy lawns surrounding homes are only marginally better than pavement for runoff. Since there are too few places for storm water to seep into the ground, flooding is also a recurring problem around Lake Attitash.

The City of Amesbury relies on Lake Attitash as a back-up source of drinking water. Amesbury manages Lake Attitash in accordance with a Management Plan prepared by Camp Dresser and McKee (1999). To maintain an adequate drinking water supply and to control the water table, Amesbury controls the height of the water in the Lake. The management plan also includes provisions to control run-off and kill new plant growth.

The Merrimac Board of Health also monitors water quality in Lake Attitash to ensure the health and safety of swimmers. During the summer, water samples are taken and tested for bacteriological quality and the presence of E.coli.

The Massachusetts Department of Public Health has issued a fish consumption advisory for all fish caught in Lake Attitash due to the levels of mercury measured in fish tissue. Mercury contamination is a public health threat and environmental issue throughout the region. The mercury concentration measured in fish tissues from 23 of 26 sampled lakes in the region resulted in consumption advisories. The advisory warns that children younger than 12 years of age, pregnant women, women of childbearing age who may become pregnant, and nursing mothers should not eat any of fish from Lake Attitash. The general public was advised not to consume any large mouth bass from the lake. Finally, the Department advised that the general public limit consumption of non-affected fish from the lake to two meals per month.

In 2004, Merrimac adopted new zoning that established a Lake Attitash Zoning District. The purpose of the district is to recognize the established pattern of single-family homes on small lots

along a portion of Lake Attitash while fostering new and infill development at a lot size that is appropriate to modern building standards.

Merrimac residents treasure the historic farms located in the Town. However, some residents worry that agricultural practices may threaten the water quality of Lake Attitash. There are concerns about run-off from fertilizers and pesticides.

Aquifers and Groundwater

Merrimac gets its drinking water from underground aquifers. There are approximately 250 acres of medium and high yield aquifers in the Town located at three sites: on Bear Hill Road in northeast Merrimac, south of Lake Attitash on East main Street, and at Veal's Pond on the Haverhill border.

The Merrimac Water Department operates two public wells, both located in the Merrimack River Basin. (See Section 3.4: Growth and Development Patterns for more information about the drinking water system.) The Water Dept. has identified a potential new source of groundwater located on a Town-owned parcel off Bear Hill Road, just over the New Hampshire border. This source could double the Town's production capacity. Securing a water withdrawal permit will require approval from two states, which will delay the process and increase development costs. Nevertheless, the site's proximity to Merrimac's existing well field makes it a desirable choice.

Merrimac's zoning bylaw provides for a water resource protection district (WRPD) that covers both groundwater resources (the area underneath the ground where the water is found) and surface water resources (the area of the aquifer that contributes water to the wells under the most severe pumping and recharge conditions that can be anticipated.) The district was developed because Merrimac and the city of Haverhill rely on Merrimac's groundwater resources for their drinking water supplies, and the town of Amesbury relies on surface water supplies in Merrimac for its drinking water. The WRPD encompasses about 1,255 acres. Of these, the Merrimac only owns 154 acres and Haverhill owns 77.3 acres around its well fields. The remainder is privately-owned.

The purposes of the WRPD are to:

- limit development in recharge areas to prevent the degradation or contamination of surface water and groundwater used for public water supply,
- preserve and protect existing and potential sources of drinking water supplies and water supply reservoirs,
- ensure an adequate quality and quantity of drinking water for residents, institutions and businesses,
- allow the aquifer recharge through natural percolation,
- facilitate the adequate provision of water supply,
- reduce the cumulative impact of nutrient loading,
- conserve the value of land and buildings including the conservation of natural resources and most appropriate use of land,
- preserve resources, and
- prevent temporary and permanent contamination of the environment.

As a protective overlay district, the WRPD augments the regulations of underlying zones by prohibiting hazardous materials storage, landfills and other high-risk land uses. The zoning establishes performances standards, which are specific requirements and/or restrictions for permitted uses. It further requires issuance of permits for projects that exceed certain thresholds. The WRPD does not permit uses that will create impervious cover on more than 15% or 2,500 square feet of any lot, whichever is greater, without an approved plan for artificial recharge.

Flood Hazard Areas

Areas inundated by 100-year flooding are called "Zone A" on Federal Emergency Management Agency (FEMA) Q3 Flood Zone Maps. This means these areas have a one percent chance of flooding in any particular year. In Merrimac, the Zone A extends along the entire Merrimack River riparian corridor and includes the shoreline of Lake Attitash. Other large flood hazard areas include the Cobbler's Brook riparian corridor and the associated wetlands located to the east of the corridor.

In 2006, Merrimac, with the help of MVPC, updated its Flood Zoning District bylaw. The boundaries of this district are defined by the 100-year surface water elevation shown on the Flood Insurance Rate Map (FIRM) and by the flood profiles contained in a Flood Insurance Study developed through the Nation Flood Insurance Program. The bylaw allows uses with low flood-damage potential by right, and requires a special permit for all other uses allowed in the underlying zoning district.

In 2009 Merrimac started implementing flood mitigation improvements, including construction of a culvert replacement at Mythical Street, which had been washed out in 2006 and 2007 flooding, limiting access to Valley and Chestnut Streets. The Town also repaired the bridge at the intersection of River Road and Middle Road at Cobblers Brook. Other notable drainage infrastructure improvements included outlet pipe replacement at Champion Street and installation of 300 feet of drain line and structures to minimize area flooding, and sedimentation control at Lake Attitash. (MVPC.org)

Wetlands

Wetlands are an important component of the hydrologic system. They play a critical role in water storage and flood control and many species of wildlife depend on wetland habitat. Wetlands also protect water quality and function as groundwater recharge and discharge areas. Nearly 10% (5,070 acres) of Merrimac's total land area is wetlands. Wetland areas abut the Town's rivers and ponds. Other significant wetlands include the area south of Lake Attitash near the Town's well field and to the west of Bear Hill Road. The large wetland between Red Oak Hill and Long Hill is the source of a tributary to Cobbler's Brook and Silver Stream. Shrub swamp, newly formed beaver pond, shallow marsh and deciduous wooded swamp comprise these wetlands.

In 2012 the maps used to highlight the Critical Natural Landscapes of Merrimac were updated in BioMap2. Protection and stewardship of BioMap2 Core Habitat and Critical Natural Landscape, including wetlands, is essential to maintain the diversity of species and their habitats, intact ecosystems, and resilient natural landscapes in Merrimac.

In 2003, Merrimac adopted a local wetlands bylaw to augment M.G.L. c.131, % 40, the Massachusetts Wetlands Protection Act. The purpose of the local wetland bylaw is to protect the Town's wetlands and related water resources by creating a 50' no disturbance zone and a 100' buffer zone around these significant resource areas. The Conservation Commission has jurisdiction to regulate development activity within these areas.

4.4 Vegetation

Merrimac is part of the southeastern hardwood (or mixed deciduous) forest. Upland forests are predominantly hardwood – northern red oak, shagbark hickory, beech, red maple and birch – with small stands of softwood hemlock and white pine. Red and silver maple, speckled alder, white oaks, pin oaks, hemlock, sweet pepperbush and highbush blueberry are common in swampy, wet areas.

Forests in Merrimac include the 331-acre Merrimac Forest, located in the heart of the Town. The Town Forest is not permanently protected, although no logging is currently allowed. Other Townowned forest lands include Perkins Conservation Area. No logging or commercial wood harvesting activity is permitted. MerrHill Tree Farm, a privately-owned and managed Christmas tree farm located on Route 110, has been in operation since 2005. This facility allows customers to cut their own trees. The owners of Smith Farm harvest timber from their property to sell as firewood. Most other timber stands are located on either conservation land or otherwise restricted areas that permit logging only for the purpose of maintaining the health of the forest and for trail maintenance.

The appearance of the forest and the makeup of its vegetation changes with elevation, soils, and moisture conditions. North-central Merrimac's forests, farmland and pastures are particularly important areas of species diversity. These forest, fields and roadsides provide habitat for a range of wild plants including: aster, black-eyed susan, bluet, bugbane, buttercup, celandine, chicory, chickweed, clover, columbine, coneflower. Cinquefoil, daisy, dandelion, fleabane, goldenrod, jewel weed, knotweed, mayflower, milkweed, mullein, partridge berry, pearly everlasting, pokeberry, purslane, Queen Anne's lace, rue anemone, soapwort, Solomon seal, sorrel, stick-tights, thistle, vetch, wintergreen, and yarrow. Rarely seen wildflowers include bleeding heart, gentians, red lobelia, saxifrage, trailing arbutus, and trillium. The wetlands surrounding the lakes ponds, and streams in Merrimac are mainly red maple swamp and include species such as bellflowers, cattails, Joe Pye weed, pickerel week and spiderworts.

The invasive purple loosestrife and phragmites are found in some wetlands. Invasive species are frequently ornamental and are non-native.⁴ They can invade, degrade and destroy the habitat of local species.

The Massachusetts Natural Heritage Program has documented only one threatened plant species in Merrimac: American Bittersweet (*Celastruss scandens*). The most recent recorded observation of this vascular plant in Merrimac was in 1951.

4.5 Fisheries and Wildlife

Common animal species in northeastern Massachusetts rely on Merrimac's forests, fields, vernal pools and wetlands. Bats, beavers, chipmunks, fishers, mice, minks, muskrats, otters, porcupine, raccoons, shrew, gray squirrels, voles, weasels and woodchucks inhabit many of Merrimac's forests. Fox and white-tailed deer are also quite common. Occasionally, residents report sighting bears, bobcats, coyotes and moose.

The Massachusetts Audubon Society reports that more than 234 bird species reside in or migrate through Merrimac. The bald eagle (removed from the list of federally-threatened and endangered species in 2007) relies on the Merrimack River riparian corridor for habitat and may be seen soaring over the Town. The diversity of Merrimac's provide habitat for breeding, feeding, nesting and refueling. Protecting landscapes and undisturbed hardwood forests is essential to the survival of bird species.

Merrimac's freshwater bodies provide a habitat for fish, amphibians and some bird. Bluegill, chain pickerel, largemouth bass, pumpkinseed, white perch and yellow perch all live in Lake Attitash. The Merrimack River is home to alewife, American eel, Atlantic Salmon, Atlantic shad, Atlantic

⁴ The Massachusetts Invasive Plant Advisory Group defines invasive species as "non-native species that have spread into native or minimally managed plant systems in Massachusetts, causing economic or environmental harm by developing self-sustaining populations and becoming dominant and/or disruptive to those systems."

sturgeon, blueback herring, gizzard shad, sea lamprey and striped bass. Amphibious species including frogs and salamanders as well as snakes and turtles use Merrimack's ponds and wetlands, as do cormorants, cranes, ducks, geese, herons and ospreys.

There are three important wildlife corridors that allow species to move through and within Merrimac. The first is the riparian corridor along the Merrimack River. The second is a swath of open space comprised of forest and farmland (meadows and grasslands) west of McLaren Trail where species can travel north to New Hampshire. The third corridor is anchored by the McLaren Trail and expands eastward to Lake Attitash, encompassing the Cobbler's Brook riparian corridor.

The Massachusetts Natural Heritage Program documented five species that are endangered, threatened or of special concern in Merrimac. The Shortnose Sturgeon is endangered. Blanding's Turtle is threatened. The Blue Spotted Salamander, the Eastern Box Turtle, and the Cow Path Tiger Beetle are all species of special concern.

4.6 Scenic Resources and Unique Environments

Scenic Landscapes

Map A.4 details Merrimac's unique landscape features. The Massachusetts Landscape Inventory identified the area of Merrimac from the Merrimack River north to Route 110 as a "distinctive landscape" with visual quality that is worthy of protection. This scenic landscape includes a beautiful natural environment and a handsome built environment. Regardless of official designation, much of Merrimac is scenic. Cemeteries, parks, scenic roads, bridges, inland meadows, and heritage trees all contribute to the uniqueness of its landscape.

Merrimac has three local burial grounds. The Church Street and Lower Corner cemeteries are the earliest designated burial grounds and they contain the community's oldest monuments. Locust Grove Cemetery, a Victorian-era cemetery, is still in use and is expected to provide adequate burial space for many more years.

Many of Merrimac's roads maintain their rural character, with narrow paving, winding routes and scenic vistas (particularly in northern Merrimac). However, River Road is the only road designated as a Scenic Road by Town Meeting. The Mother's Day storm of 2006 washed out a half-mile stretch of River Road. In recent years, a change in the frequency and severity of storms has further compromised the road. Lack of federal funds to repair it has created a frustration for Town officials and citizens. The damaged road is now closed to all auto, bicycle and pedestrian traffic.

For local roads designated under the Massachusetts Scenic Road Act (M.G.L.c.40 % 15C), the Planning Board can limit the removal of any trees and stone walls located within the public way. The Board has no jurisdiction over tree or stone wall removal on undesignated roads.

The northern end of Merrimac retains the visual landmarks of its early agricultural heritage, with its undeveloped fields, extensive vistas and several remaining farms with their associated buildings.

Cultural and Historic Area

Originally settled in the early 18^{th} century, Merrimacport is an exceptionally well-preserved village of Georgian, Federal, Greek revival, and early Victorian-style buildings. Merrimac Center (which includes Merrimac Square) developed in response to the burgeoning horse carriage industry, which flourished in the latter half of the 19^{th} century. The grand Victorian-style homes along West Main Street, with their extensive architectural embellishment, were built for owners and managers of the

numerous carriage shops and they attest to the affluence that this industry brought into Merrimac. Smaller-scale worker's housing, built on secondary roads, still exists here as well.

The carriage industry also contributed to the commercial and civic development of Merrimac Square. Large three-story brick building that housed carriage finishings businesses, such as the Poyen Block (1886) and the Little & Larkin Block (1882), remain today, as do several mill buildings from one of the Town's first carriage businesses, Sargent, Harlow & Company. Collectively, these well-preserved buildings represent a unique collection of Victorian commercial architecture with decorative brickwork, including corbelled cornices and arched windows with keystones.

The 1876 Sargent Hall, a well-preserved example of Gothic architecture, houses Town Hall, which was extensively renovated in 2002-03. Sargent Hall was constructed with the financial support of William P. Sargent, the son of a carriage maker.

A unique historic and cultural resource, the Merrimac Museum, was recently relocated from Sargent Hall to the vacated Hoyt Library. In 2002 voters appropriated funds to build a new library, because the historic 1929 Thomas H. Hoyt Memorial Library in Merrimac Square could no longer meet the Town's space needs. The new 15,000 sq. ft. library opened in July 2004. Local residents formed a non-profit group in 1976 to manage a vast array of artifacts and ephemera documenting the social, economic and architectural development of the Town.

The Old Sawyer House Museum, operated by the Town Improvement Society, is a historic house museum on East Main Street. Built between 1725-1757, the Sawyer House was purchased by the Merrimac Town Improvement Society in 1909. It occupies a 17-acre parcel that abuts Walker's Pond and Cobbler's Brook. The Landing School, an 1857 one-room schoolhouse, is located on the same site.

Merrimac conducted a partial historic resources survey in 1980. Although Merrimac has records of its historic buildings, the inventory is more than 30 years old and its lacks the historic, architectural and contextual documentation required today. Moreover, like other surveys conducted at the time, Merrimac's focused primarily on 18^{th} - and 19^{th} - century residential structures, omitting both non-residential buildings and sites and 20^{th} -century resources.

Voluntary private efforts to preserve historic buildings can be seen throughout Merrimac, but formal public measures to identify and protect the Town's architectural treasures have not been realized. Merrimac has no buildings on the National Register of Historic Places and no local historic districts (LHD) pursuant to M.G.L. c 40C or demolition delay bylaw.

Historic agricultural vestiges such as outbuildings, barns, silos, stone walls and tilled fields reinforce a Town's sense of place, as do its open spaces and scenic landscapes. Merrimac has many landscapes that retain their agricultural character and naturally scenic qualities. These sites have not been survey or fully documented as part of the Town's historic inventory. Most of the sites are unprotected, although two farms are protected by Agricultural Preservation Restrictions (APR). One of them, parts of Sargent Farm on Bear Hill Road, has been owned by the same family for at least seven generations and has been in operation for more than a century. The second APR farm is located in the west side of Town on Birch Meadow Road and abutting the Town Forest.

Recreation Facilities

As shown in Table 4.1, Merrimac has seven Town-owned recreation sites: the Town Forest, Carriagetown Park, Carey Park, Locust Street Landing, Stevens Athletic Fields, Donahue School and Sweetsir School. The Pentucket Regional School District maintains recreation facilities on school property. The Merrimac Department of Public Works maintains the Carriagetown Park and Stevens

Athletic Fields. Private sports leagues using the Town's playing fields assist with facility upgrades, cleaning and general maintenance. Each sports league is governed by its own Board of Directors, which manage league play and takes responsibility for fundraising.

The playgrounds located at the two elementary schools are the only parks in Town with swings, climbing bars and other recreation equipment for young children. The facilities at the Middle and High Schools are across the Merrimac River. Children cannot safely use the Rocks Village Bridge (there are no sidewalks or bike lanes) to access the nearby West Newbury or Groveland playing fields and playgrounds.

To address the shortage of playgrounds suitable for young children, a group of residents asked to be appointed by the Selectmen to a newly formed Playground Committee. A site on the grounds of the Stevens Field has been identify for construction of a new playground, and funds have been allocated by the Town. The Committee is seeking grant funding to purchase equipment.

There is a state-operated boat ramp on Lake Attitash, but Merrimac's public beach at the Lake was closed in 2002. The closure occurred because access to the beach and the parking lot by the beach traversed land protected for the Town's well fields and filtration plant.

Merrimac's recreation inventory includes only a few places that provide public access to the Merrimack River. Carey Park and Locust Street Landing provide launch sites for canoes and kayaks, but these parcels are undeveloped for picnicking. The launch sites are small and parking is very limited. Parts of River Road are now closed to all traffic including pedestrians, due to flood damage.

TABLE 4.1: Parks

NAME	Facilities	Estimated Acres
Town Forest	4 soccer fields	15
Carriagetown Park	Baseball field Football practice field	17.9
Carey Park	Canoe and kayak launch	1.2
Locust St. Landing	Canoe and Kayak Launch	1.2
Stevens Athletic Fields (at Donahue School grounds)	1 Tennis court 1 baseball field 1 softball field Play equipment (old swings & slide)	14.0
Donahue School	1 basketball court	
Sweetsir School	Playground	12.0

Greenways and Trails

The Jay McLaren Trail is an important popular regional recreation amenity. The 18-acre former railroad right-of-way begins behind the Church Street Cemetery, follows Cobbler's Brook and continues north along the railroad track bed into Newton, NH. The entire 2-mile trail is open to

pedestrians, bicycles, cross-country skiers and equestrians. Illegal use by motorized vehicles is a constant problem.

The trail passes through a variety of landscapes. The southern end passes through industrial and dense residential development. Further north, it winds along the Perkins Conservation Area and. The most scenic portion of the trail is the northern end just south of the Newton, NH border, which includes a spectacular view of a large wetland that feeds the Back River. There is one major crossing at Harriman Road, where there is a newly renovated trail bridge. Portions of the trail are deteriorating, particularly at one of its most character-defining elements - the historic stone railroad bridge over Harriman Road. Erosion and drainage problems plague the northern end. Volunteers maintain the trail.

The trails within the Town Forest consist of cart roads once used when the area was farmland. In general, the trails are wide (some 10 feet wide) with moderate to steep inclines that can be challenging. Most of the trails encircle or cross Red Oak Hill, the forest's major natural feature and the highest point in Merrimac. The width of the trails detracts from the wilderness experience.

Along Cobbler's Brook trail, there is now a beaver dam, which has created a relatively large pond in the Town Forest. Some trails are now under water, and users of the forest have created new trails to compensate.

The trails in the Town Forest have been underused by hikers and overused by motor vehicles. People in large trucks and jeeps often use the trails to access the interior of the forest during hunting season or for drinking parties. Trash is often deposited within the forest. Motor vehicle use is currently permitted, but should be restricted to emergency vehicles-only. Motor vehicle use has caused erosion in a number of places. In 2013, the state police found it very difficult to use 4-wheelers to help locate a person in need due to the erosion.

Established in 2000, the approximately 0.75 mile Marshview Trail is Merrimac's newest trail. It is located within the Perkins Conservation Area and runs east-west between Highland Road and the McLaren Trail. This trail is relatively flat as it parallels a wetland, but it has a wilderness feel due to its narrow and winding nature. The trail is underused and, as a result, trail clearing is required annually.

Areas of Critical Environmental Concern

There are no designated Areas of Critical Environmental Concern in Merrimac. However, the Massachusetts Natural Heritage and Endangered Species Project (NHESP) has identified the Merrimack River riparian corridor as a BioMap Core Habitat area. This means that the area is critical for endangered and threatened species and that it needs protection. The area corresponds with the largely unbroken open space corridors in Merrimac. NHESP describes this area as significant because it buffers and connects BioMap Core Habitat and it is comprised of large, naturally vegetated areas that are relatively free from the impact of roads and other development.

4.7 Other Environmental Resources

First Solar Project in the Town of Merrimac.

The Merrimac Solar Field began operations in 2015. It generates 1.5MW per day, enough electricity for about 200 homes. The project will generate clean, renewable electricity and help Merrimac Light Department (MLD) reduce the carbon footprint of the Town. The field is on private land that is leased for the Solar Project. It provides a low usage rate that is locked in for 20-years. The panels

are not visible from Rt. 110 (West Main St) or Federal Way. There are no harmful air emissions, noise or glare from the project. No hazardous materials will be used or stored on site.

4.8 Environmental Challenges

Ground and Surface Water Pollution

Sources of point source and non-point source pollution in Merrimac threaten public health, habitat and natural resources. Point source pollution comes from a stationary location or facility from which pollutants are discharged, such as a pipe or smokestack. Non-point source pollution does not have well-defined sources, coming from road salt, fertilizers, pesticides, and leaking septic systems. Of the approximately 1,226 acres that encompass the Lake Attitash watershed and the Town's well fields, the Town only owns 12.2% of the land area. High density residential development, residential and agricultural land management practices, auto-related businesses on East Main Street and road maintenance practice all can be sources of point and non-point source pollutants in this sensitive area.

There are no state-designated hazardous material and brownfield sites in Merrimac. The Bureau of Waste Prevention of the Massachusetts Department of Environmental Protection monitors all "major facility" in Merrimac that it considers to have a high likelihood of causing environmental harm should there be a malfunction or spill. The federal Environmental Protection Agency (EPA) regulates and monitors nine facilities in Merrimac. In November 2004, the EPA determined that the former Costal Metal Finishing on Little Court is a site that could potentially be designated as a federal hazardous waste site. The Town has been awarded a grant to begin cleanup of the site.

Landfill

Merrimac's landfill was constructed in the 1960s. The Town capped it in 1997, but did not line it. Periodically, the Department of Environmental Protection monitors the area and conducts ground water testing to check for contaminants in and around Cobbler's Brook. There is Town-wide curbside trash and recycling pick-up. The Town has adopted 'pay as you throw' trash pickup to encourage household recycling.

Solid Waste Combustion

Municipal solid waste combustion (MSWC) was identified as a regional public health threat in the Merrimac Valley Planning Commission's most recent Comprehensive Economic Development Strategy (CEDS). There are nine active MSWC facilities in Massachusetts, and three are located in the Merrimac Valley (Haverhill, Lawrence and North Andover.) The concentration of trash-burning facilities in the Merrimac Valley causes a disproportionately high release of air-borne pollutants generated during the combustion process, including mercury and other toxic substances. Almost 1.9 million tons of mercury are emitted by the three Merrimack Valley facilities each year (based on 1991-1994 stack test data). These three facilities are responsible for 62 percent of the total mercury emissions for the state. The public health implications of MSWC emissions need further investigation by the Merrimack Valley Planning Commission and the Department of Environmental Protection.

Erosion and Sedimentation

Development creates a risk of erosion by exposing soils during construction. Sedimentation creates non-point pollution in rivers and the Town's ponds. The earth removal provisions of the Merrimac Zoning Bylaw are not as strict as those found in some Massachusetts towns such as nearby

Newbury and Rowley. The Town's bylaw requires that any developer protect the natural environment by reducing the number of mature trees removed, reducing the volume of earth materials cut or filed, reducing soil erosion during and after construction, and reducing the extent of alteration in the amount, timing and locations of storm water runoff from the site. However, the bylaw does not set specific thresholds or performance standards.

The Town should consider adopting and/or modifying the Massachusetts Association of Conservation Commissions model Erosion and Sedimentation Bylaw. It should further consider adopting performance standards, such as establishing a minimum numbers for the planting of rooted perennial plants, Erosion and Sedimentation and Control Plans for disturbances greater than 5,000 sq. ft., and allowing innovative silt management technology.

Chronic Flooding

In Merrimac, the 100-year floodplain extends the distance of the Merrimack River riparian corridor and includes the shoreline of Lake Attitash. The Town of Amesbury controls the height of the water in Lake Attitash in accordance with its public drinking water supply management plan. Other large flood hazard areas include the Cobbler's Brook riparian corridor and the associated wetlands located to the east of this corridor.

Development Impact

Continued development in Merrimac will result in the loss of open space and environmentally important areas. Development impacts will include:

- An increase in impervious surfaces and a resultant increase in surface runoff and non-point source pollution problems,
- Increased demand on the Town's already strained recreational facilities,
- Loss of open space for passive recreation, wildlife habitat and agricultural uses,
- Increased demand on the Town's water supply,
- Loss of rural character that defines Merrimac, and
- Increased demand on all public services.

Tools such as wetland protection bylaws and cluster development bylaws can help mitigate the impact of future development on natural resources.

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 (EJ) population. 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 population clusters in Merrimac.

Environmental equity also refers to the ability of all residents, regardless of where they live in a community, to access open space and recreation land. Merrimac is a small community of just 8.84 square miles. Access to open space, conservation, and recreation land is available to all residents. The Town is rural in character with many country roads, and there are no areas in Town where access to tree cover is difficult.

5. Lands of Conservation and Recreation Interest

5.1 Open Space

Map A.6 shows all lands of conservation interest in Merrimac, including those already protected, public lands and private parcels that need additional protection, and privately-owned parcels currently in Chapter 61A. Table 5.1 below summarizes all the open space holdings in Merrimac shown on the map.

Merrimac has about 1,475 acres of open space, of which the Town owns approximately 45% (about 781 acres.) Many Town-owned parcels are not permanently protected, and securing permanent protection of these parcels is critical. Presently, the Perkins Conservation Land is protected by a conservation restriction. However, the largest Town-owned parcel, the Town Forest, is not protected. Other Town-owned properties, such as the Town's cemeteries and schools, have limited protection. The MassGIS open space data layer that was updated in January 2004 contains many errors and the level of protection data needs to be updated. To aid in the correction, the Open Space Committee will submit updated data on its open space inventory to MassGIS as a result of this plan.

Open space is typically classified according to a level-of-protection framework that recognizes four levels of protection: 'permanent', 'temporary', 'limited' or 'none.' 'Permanently' protected open space includes land owned for conservation and wildlife habitat by federal and state agencies or non-profit organizations and privately-owned land bound by conservation easements. "Temporary" and 'limited' open space includes land covered by revocable restrictions against development or change in use. A farm that is differentially assessed for tax purposes under Chapter 61A, is an example of temporarily protected open space. Limited-protection open space includes land uses such as cemeteries or ball fields that could but are unlikely to be redeveloped. 'Unprotected' open space is land with no legal restrictions against future development.

The Town's most significant open space holdings include:

- The 307.8-acre Town Forest
- The 110- acre Perkins Conservation Area
- The 33-acre Cobbler's Brook Greenway
- The 18-acre Jay McLaren Trail
- 101 acres of watershed land owned by the City of Haverhill for its wells on Hadley Road

Currently, there are about 259.1 acres temporarily protected in the Chapter 61 programs. The largest holding (123 acres) is agricultural land that is owned by the Sargeant Family. Notably, all of the land that is enrolled in the Chapter 61 program is agricultural (61A). None is set aside for forestry or recreational uses. There are two Agricultural Preservations Restrictions in Merrimac, totaling 434.55 acres.

Vacant land may be open space today, but unless this land is permanently protected, it could be developed in the future. The buildout analysis included in the Master Plan (and described briefly in Chapter 3 of this plan) concludes that there are more than 1,000 acres of vacant, developable residential land and 125 acres of vacant, developable commercial and industrial land in Merrimac.

5.2 Parcels of Interest

In addition to the permanently protected open space in Merrimac, the Town is interested in permanently conserving other parcels. Areas of particular conservation interest include:

Access points to existing open space and trails that protect Lake Attitash,

- Smith Farm on Highland Road
- Hoyt Farm on Birch Meadow Rd
- Tamarack Farm on Locust Street
- Wallace Property on North Street
- Town Improvement Society Land
- Sargent Farm land not included in the APR

Table 5.1 Inventory of Lands of Conservation & Recreation Interest: Town-Owned Open Space Parcels

<u>Property</u> <u>Name</u>	<u>Owner</u>	Management Entity	Parcel ID	<u>Location</u>	Land Area in Acres	Zoning	<u>Current Use</u>	Condition	Recreational Potential	Grants Used to Purchase	Public Access	Type of Protection
Carey Park	Town of Merrimac	DPW	38-1-3	River Rd	0.7	SR	Passive recreation	E	River access	None	Yes	None
Carriagetown Park	Town of Merrimac	DPW	33-1-1	Emery St.	17.94	AR	Abandon playing fields	F	Walking trail	None	Yes	None
Cobbler's Brook Greenway	Town of Merrimac	Con Com	37-2-1 to 37- 2-4	7-11 Broad St.	33.4	AR	Nature Preserve	F	Restore trail	None	Yes	None
Duck Hole Landing	Town of Merrimac	Con Com	53-1-2	River Rd.	0.5	AR	Nature preserve	U	None	None	No	None
Indian Head Park/Wellfield	Town of Merrimac	DPW	42-1- 10	E. Main St.	31	RH	Beach Closed	F	Reopen beach	None	No	Aquifer restriction – 400 ft
Kimball Park	Town of Merrimac	Trustees of Kimball Park	12-1-1	W. Main & Union St.	0.39	VR	Garden benches	E	Passive recreation	None	Yes	None
Locust Street Landing	Town of Merrimac	DPW	29-1-1	River Rd.	0.99	AR	River access/ emergency boat launch	G	Canoe/kayak launch	None	Yes	None
McLaren Trail	Town of Merrimac	Con Com	2-1-13	Liberty St. to state line	18.06	VR/AR	Linear rail trail	G	Multi non- motorized vehicle uses	None	Yes	None
Nixon Set Aside	Town of Merrimac	Con Com	83-1-2	Highland Rd.	9.98	AR	Nature preserve	U	None	None	No	Deed restricted
Madison Way Open Space	Madison Way Assoc.	Con Com	90-1- 14.C	Bear Hill Rd.	16	AR	Nature preserve	U	None	None	No	Deed restricted
Perkins Conservation	Town of Merrimac	ECGA (through CR)	72-1-2	Highland & Brush Hill Rd	42.22	AR	Nature preserve & non-motorized vehicle recreational trail	G	same	None	Yes	CR
Perkins Conservation	Town of Merrimac	ECGA (through CR)	73-1-1	"	58.3	AR	"	G	II	None	Yes	CR
Perkins Conservation	Town of Merrimac	ECGA (through CR)	73-1-3	п	8.21	AR	"	G	П	None	Yes	CR
Perkins Conservation	Town of Merrimac	ECGA (through CR)	74-1-1	п	1.2	AR	11	G	п	None	Yes	CR
River Road Peninsula	Town of Merrimac	DPW	35-1-4	River Rd	0.63	SR	Protect river	U	None	None	No	None

Town Forest	Town of Merrimac	Trustees of Town Forest	70-1-1	Town Forest Rd.	281	AR	Wetlands, playing fields, & trails including motorized vehicles	G	Further trail development	State purchase	Yes	Article 97
Town Forest	Town of Merrimac	Trustees of Town Forest	70-1-3	11	8	AR	11	G	"	"	Yes	"
Town Forest	Town of Merrimac	Trustees of Town Forest	70-1-6	11	11.8	AR	ıı .	G	11	11	Yes	"
Town Forest	Town of Merrimac	Trustees of Town Forest	70-1-7	"	7	AR	п	G	п	II .	Yes	"
Church Street Cemetery	Town of Merrimac	DPW	2-1-1	Church St.	4.34	VR	Cemetery	G	None	None	Yes	None
East Main Street Cemetery	Town of Merrimac	DPW	92-1-2	E. Main St.	1.51	RH	Cemetery	F	None	None	Yes	None
Locust Grove Cemetery	Town of Merrimac	DPW	29-1- 10	Locust Grove St.	16	AR	Cemetery	E	None	None	Yes	None
Donaghue School/ Stevens Field	Town of Merrimac	DPW	22-1-1	24 Union St. Ext.	13.4	VR	School & playing fields	E	Tot playground	MSBA	Yes	None
Sweetsir School	Town of Merrimac	DPW	59-2- 1A	104 Church St.	12.5	SR	School & playground	E	same	MSBA	Yes	None
Closed Landfill	Town of Merrimac	DPW	70-1-5	Battis Rd.	2.8	AR	Leave & brush recycling	U	Passive recreation	None	Yes	Environ- mental
Wells/Pumping Station	Town of Merrimac	DPW - Water Dept.	68-1-9	Bear Hill Rd.	10	AR	Wellfields	U	None	None	No	Aquifer restriction 250 ft
Wells/Pumping Station	Town of Merrimac	DPW - Water Dept.	90-1- 6.B	"	3	AR	Wellfields	U	None	None	No	"
Wells/Pumping Station	Town of Merrimac	DPW - Water Dept.	90-1-7	"	18	AR	Wellfields	U	None	None	No	"
Wells/Pumping Station	Town of Merrimac	DPW - Water Dept.	90-1-8	п	13	AR	Wellfields	U	None	None	No	"
Wells/Pumping Station	Town of Merrimac	DPW - Water Dept.	90-1- 10	"	13	AR	Wellfields	U	None	None	No	"
Wells/Pumping Station	Town of Merrimac	DPW - Water Dept.	90-1- 11	"	2	AR	Wellfields	U	None	None	No	"
Wells/Pumping Station	Town of Merrimac	DPW - Water Dept.	90-1- 12	"	4	AR	Wellfields	U	None	None	No	"

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Wells/Pumping Station	Town of Merrimac	DPW - Water Dept.	90-1- 14A	II	1	AR	Wellfields	U	None	None	No	11
RR Bear Hill Road	Town of Merrimac	DPW - Water Dept.	90-1-9	"	3	AR	Wellfields	U	None	None	No	11
Standpipe	Town of Merrimac	DPW - Water Dept.	48-1-6	W.Main St.	0.7	RH	Water standpipe	U	None	None	No	None
Standpipe	Town of Merrimac	DPW - Water Dept.	91-1- 3A	Old Bear Hill Rd.	0.36	AR	Water standpipe	U	None	None	No	None

Кеу				
Management Entity	Zoning	Condition	Type of Protection	Grant
DPW = Dept. of Public Works	AR = Agriculture Residential	U - Unimproved	CR = Conservation Restriction	MSBA = MA School Building Authority
ECGA = Essex County Greenbelt Association	VR = Village Residential	F - Fair	Article 97 of Mass. Constitution	
Con Com = Conservation Commission	RH = Rural Highway	G - Good		
	SR = Suburban Residential	E - Excellent		

Table 5.2 Inventory of Lands of Conservation & Recreation Interest: Privately-Owned Open Space Parcels (Includes Chapter 61 Properties)

Property	<u>Owner</u>	Management Entity	Parcel ID	Location	Land Area in Acres	Zoning	<u>Current</u> <u>Use</u>	Condition	Recreational Potential	Grants Used to Purchase	Public Access	Type of Protection	Chapter 61
East Main Street	Town Improvement Society	Town Improvement Society	76-1-5	East Main Street	3.20	VR / AR	Historic Buildings & walking trail	G	Link to McLaren Trail	None	Yes	None	No
18 East Main Street	Town Improvement Society	Town Improvement Society	17-1-2	18 East Main Street	16.10	VR / AR	Nature trail	G	Link to McLaren Trail	None	Yes	None	No
Church Street McLaren Trail access	Church St. Neighborhood Assoc.	Town of Merrimac (Through CR)	19-1-1	Church St.	0.13	VR	trail access	G	same	None	Yes	CR	No
Church Street McLaren Trail access	Church St. Neighborhood Assoc.	Town of Merrimac (Through CR)	2-18	Church St.	0.72	VR	trail access	G	community gardens	None	Yes	CR	No
Lake Attitash boat ramp	Comm. Of Mass.	Comm. Of Mass.	93-1- 0B	Attitash St.	6.36	L	motor boat ramp & parking	G	same	State funds	Yes	None	No
Haverhill Well Fields	City of Haverhill	City of Haverhill	79-1-2	Hadley Rd.	101.8	AR	Wellfields	U	None	None	No	Aquifer restriction	No
Long Pond Conservati on Area	Long Pond Road Conservation Trust	Long Pond Road Conservation Trust	45A-1- 1C	Little Pond Rd.	10.59	AR	Retention pond	U	None	None	No	Deed restricted	No
82 Bear Hill Road	Jane Sargent	n/a	91-1-1	82 Bear Hill Road	235.35	AR	Agricultural	Р	None	Dept. of Agriculture APR funds	No	APR	61A
82 Bear Hill Road	Jane Sargent	n/a	71-1-6	83 Bear Hill Road	29.6	AR	Agricultural	Р	None	None	No	None	61A

82 Bear Hill Road	RR Sargent Reality Trust	n/a	75-1-1	34 Bear Hill Road	92.9	AR	Agricultural	Р	None	None	No	None	61A
83 Bear Hill Road	Jane and Robert Sargent	n/a	90-1-1	83 Bear Hill Road	123.4	AR	Agricultural	Р	None	None	No	None	61A
83 Bear Hill Road	Jane and Robert Sargent	n/a	90-1-2	83 Bear Hill Road	28.8	AR	Agricultural	Р	None	None	No	None	61A
83 Bear Hill Road	Jane and Robert Sargent	n/a	90-1-3	83 Bear Hill Road	8	AR	Agricultural	Р	None	None	No	None	61A
83 Bear Hill Road	Jane and Robert Sargent	n/a	90-1- 3.A	83 Bear Hill Road	3.7	AR	Agricultural	Р	None	None	No	None	61A
83 Bear Hill Road	Robert Sargent	n/a	90-1-4	83 Bear Hill Road	8.3	AR	Agricultural	Р	None	None	No	None	61A
83 Bear Hill Road	Jane and Robert Sargent	n/a	90-1-6	83 Bear Hill Road	43	AR	Agricultural	Р	None	None	No	None	61A
83 Bear Hill Road	Jane Sargent	n/a	90-1- 15	83 Bear Hill Road	19	AR	Agricultural	Р	None	None	No	None	61A
11 Birch Meadow Road	Jason Sargent	n/a	55-1-3	11 Birch Meadow Road	67.5	AR	Agricultural	Р	None	Dept. of Agriculture APR funds	No	APR	61A
Birch Meadow Road	Jeffrey and Constance Hoyt	n/a	63-1-1	74 Birch Meadow Loop	84	AR	Agricultural	Р	None	None	No	None	61A
Birch Meadow Road	George Hoyt	n/a	67-1-1	73 Birch Meadow Loop	8.3	AR	Agricultural	Р	None	None	No	None	61A

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Inholding in Town Forest	Gerald Lay	n/a	70-1-2	Town Forest	7.7	AR	Vacant	U	Recreational trails	None	No	None	No
Locust Street	Nanette and Robert Becker	n/a	27-1- 3D	59 Locust St.	8.71	AR	Agricultural	Р	None	None	No	None	61A
Locust Street	Nannette and Robert Becker	n/a	27-1- 3C	59 Locust St.	4.01	AR	Agricultural	Р	None	None	No	None	61A
Locust Street	Nannette and Robert Becker	n/a	27-1-3	59 Locust St.	11.07	AR	Agricultural	Р	None	None	No	None	61A
Highland Road	Robert Smith	n/a	84-1-2	42 Highland Rd.	70	AR	Agricultural	Р	None	None	No	None	61A
Birch Meadow Road	Carrie and Tim Rennie	n/a	87-1-1	86 Birch Meadow Loop	37.87	AR	Agricultural	Р	None	None	No	None	61A
Birch Meadow Road	George Hoyt	n/a	86-1-2	83 Birch Meadow Loop	11.2	AR	Agricultural	Р	None	None	No	None	61A
Birch Meadow Road	Jeffrey and Constance Hoyt	n/a	67-1-2	74 Birch Meadow Loop	12.6	AR	Agricultural	Р	None	None	No	None	61A

Key				
Management Entity	Zoning	Condition	Type of Protection	Grant
DPW = Dept. of Public Works	AR = Agriculture Residential	U - Unimproved	CR = Conservation Restriction	MSBA = MA School Building Authority
ECGA = Essex County Greenbelt Association	VR = Village Residential	F - Fair	Article 97 of Mass. Constitution	
Con Com = Conservation Commission	RH = Rural Highway	G - Good		
	SR = Suburban Residential	E - Excellent		

6.0 Community Vision

From the northern half of Merrimac, with its historic farms, scenic landscapes and unspoiled vistas, to the majestic banks of the Merrimack River, there are numerous examples of natural resources and open space. Thoughtful planning and careful management have helped Merrimac to preserve, expand and maintain the Town Forest and other open spaces. Trails, landings and access points provide seasonal enjoyment of forests, lakes, rivers, ponds and streams. Passive and active recreational opportunities are available for all ages. Watershed protection is also an important part of planning that insures good water quality, maintains wildlife habitat and enhances property values. These factors all frame the vision for this Open Space and Recreation Plan.

6.1 Description of Process

In 2002, the Town of Merrimac completed a Master Plan. This Open Space and Recreation Plan seeks to offer strategies and policies that support the Open Space and Natural Resources vision described in the 2002 Master Plan, with a focus on open space protection and recreation.

In the last few years the Open Space Committee set out to review its priorities, evaluate its accomplishments and setbacks and address new resource protection and recreation needs. For its first Open Space and Recreational Plan, the Town hired Community Opportunities Group Inc. to prepare the plan, to facilitate public participation during its development, and to assist with assuring that the Open Space and Recreational Plan met the requirements of the Executive Office of Environmental Affairs, Division of Conservation Services (DCS).

The Merrimac Open Space Committee began convening to work on the updated 2016-2023 Open Space and Recreation Plan in the fall of 2014. Committee meetings were posted and open to the public.

The Committee conducted a community survey in the fall and winter of 2015. Surveys where available at the Senior Center and Library, and responses were sought from those attending games at the playing fields. The input received from 45 residents represents a good cross section of the community.

The Committee hosted a public forum on March 24, 2016. The forum was advertised in the online Merrimac Bulletin and Facebook, and at the library, Town Hall, the Post Office, and local coffee shops and convenience stores. The week before the forum, signs were posted at different intersections that are used widely in town and also at the exit road from the school.

Forty people attended the forum. The Committee displayed charts depicting results from the 45 responses to the community survey, including priorities for open space protection and recreation actions. Participant also could view beautiful photographs of the Town's open space trails, the beaver pond in the Town Forest, and the landing at Lake Attitash. Additional information was available regarding grant writing classes at the local community college, Mass Wildlife items and order forms for education books and materials, new maps of conservation land and water locations from the MIMAP available on Merrimac's web home page, and a booklet of BioMap2 of Merrimac.

The formal part of the forum began with a presentation and discussion of the responses to the 10 survey questions. Open Space Committee members provided information about how the survey was developed, and reported the priorities indicated by the survey results. Attendees provided additional responses to the survey questions. Selectman Andrew Connor, Director of Public Works

Bob Sinibaldi, Jeffery Hoyt from the Historical Commission, and Joseph Cosgrove, Environmental Program Manager at MVPC answered questions.

Noted key areas of interest identified through the survey and at the public forum include:

- Public access to the Merrimack River
- Protection of the Town's water supply
- Development of more children's playground facilities
- Improved maintenance and development of existing children's playgrounds
- Article 97 land protection and use of conservation restrictions for land protection
- Scenic Road protection for Hadley Road
- Opportunities for youth groups to help maintain trails.

6.2 Statement of Open Space and Recreation Goals

Based on the results of the survey and input from the public forum, the Open Space and Recreation Committee developed the following five overarching goals for the 2016-2013 Open Space and Recreation Plan.

- 1. Preserve land that protects wildlife habitat and greenway corridors.
- 2. Foster a sense of community by providing open space resources for residence of all ages and abilities through accessible parks and recreational facilities and increased awareness of these resources.
- 3. Safeguard water resources for drinking water, habitat and recreation.
- 4. Support the continuity and vitality of agriculture in Merrimac.
- 5. Engage Town departments and residents in implementation of the plan and stewardship of Merrimac's natural resources, historic landscapes and landmarks.

7. Analysis of Needs

7.1 Summary of Resource Protection Needs

An open space and recreation plan should promote programs, policies and other initiatives to protect a community's land and water resources for both the public good and species habitat. In Merrimac, three core challenges need to be addressed, both in the near future and on a longer-term basis:

- protecting ecologically significant open space,
- preserving historic landscapes and structures, and
- developing and managing active and passive recreation sites.

Ecologically Significant Open Space

Merrimac is home to five species that are endangered, threatened, or of special concern. The Town needs to use regulatory and non-regulatory means to shelter fragile species. The Commonwealth's Natural Heritage and Endangered Species Program (NHESP) has identified the specific habitat that is critical for these animals and other lands and waters that are important for their survival. Approximately 60% of all the land in Merrimac is ecologically significant habitat. The Town owns several large, connected tracts of this habitat land, including the Town Forest and the Perkins Conservation Area. However, I-495 culverts are not large enough to connect wildlife habitat in northern Merrimac to the Merrimack River.

Merrimac's local planning documents and bylaws prioritize linkages and watershed protection, and manage development. The new local wetlands and zoning bylaws give the Town regulatory tools to protect sensitive resources and open space. The permanent protection of land through acquisition, conservation restrictions and agricultural preservation restrictions will further protect the Town's important natural resources. Clear strategies to acquire habitat land and open space will provide ecological, social, economic and health benefits, and leverage resources to meet Merrimac's habitat conservation, open space, public health and recreation goals. An open space protection strategy in Merrimac will benefit from a dedicated funding source to acquire, improve and manage property.

Merrimac has developed open space protection priorities, but it needs a refined acquisition strategy utilizing appropriate tools, resources and funding scenarios to assist with open space conservation. The Town's open space protection priorities include:

- Wildlife habitat including:
 - o grassland and forest habitat for Merrimac's songbirds;
 - o riparian wetlands and vernal pools for the Blanding's Turtle, the Blue Spotted Salamander, the Eastern Box Turtle and Spotted Turtle; and
 - riparian land that shelters the Bald Eagle and protects the water supply for aquatic birds and Merrimac's many fish.
- Land in the Water Resource Protection District
- Open space that expands and extends existing corridors
- Access points to water amenities
- Parkland for tot lots and neighborhood recreation

• Land for field sports and active recreation

Much of the ecologically significant land in Merrimac is also high value watershed protection, recreation, agricultural and scenic land. Merrimac's conservation strategies seek ways to meet multiple needs through management and alternative land protection tools. Through targeted acquisition and stewardship, Merrimac aims to meet multiple needs through land acquisition.

Historic Landscapes

Merrimac is defined by its historic architecture and its rural landscapes. These features give the Town its unique and special identity. Strategies to direct development away from hilltops toward lower elevations will help to protect scenic view corridors and stabilize slopes, soil and vegetation. Tree and stone wall conservation measures would protect two of the Town's most character-defining features and further stabilize soil and vegetation, thereby mitigating erosion and sedimentation.

Historic working landscapes and historic roads also contribute to the Town's character. Two historic farms are protected by Agricultural Preservation Restrictions. The Town also currently has an additional 259.1 agricultural acres enrolled in the Chapter 61 program. The Town needs to seek ways to protect farming as a viable business in addition to preserving its pastoral charms. The Town should also consider designating other Scenic Roads in addition to River Road.

Active Recreation Sites

The National Recreation and Park Association (NPRA), a well-known advocacy organization, has developed park, recreation and open space guidelines for cities and towns. If NPRA guidelines are used as a baseline to determine the amount of open space and recreation land needed in a community, then Merrimac has insufficient park and recreation space. Carriagetown Park, Stevens Athletic Fields and the Town's schools provide community playfields and play equipment, but MPRA standards suggest that a town of Merrimac's size should have 5-6 small tot lots (less than 1 acre); 5-6 neighborhood parks (5-8 acres each); a major community park (35-50 acres); and an acre of open space that is used as passive recreational land for every 1,000 residents. Presently, the Town's open space and vacant land only meets the last of these guidelines.

The Town's open space and recreational facilities are important assets requiring stewardship and maintenance. This plan should identify methods to manage the Town's existing facilities and acquire new ones that are possible given the Town's capacity and resources.

7.2 Summary of Community Needs

Merrimac residents are particularly concerned about protecting the vitality of Merrimac's remaining farms. Residents also care deeply about safeguarding view sheds in Northern Merrimac and open vistas of the hills in New Hampshire and Amesbury. Other community needs include protecting the Town's drinking water supply; managing species habitat; improving access to and managing existing open space, especially at the Town's water access points; managing the impacts of new growth on the Town's natural resources; managing the Town's existing recreation facilities; providing diverse recreational opportunities for all residents; creating small parks and neighborhood open space; acquiring more land for field sports; creating and linking trail and bike paths; maintaining sidewalks; and managing the open space inventory.

EOEEA's Division of Conservation Services develops the State Comprehensive Outdoor Recreation Plan (SCORP) to address open space and recreation needs for all regions of the Commonwealth. A review of the SCORP identified three key areas where the State goals for open space and recreation

parallel Merrimac's goals. The SCORP identified water access and access to/addition of hiking trails as key goals. The public participation process conducted for this Open Space and Recreation Plan identified a desire by Merrimac residents for improved access to the Merrimack River, particularly by reopening the boat ramp. The survey identified strong utilization of existing trails, and the desire to improve or better maintain many of the existing trails. The SCORP also identified the need for more facilities for teens and playgrounds for younger children. Respondents to the Merrimac survey most frequently mentioned development and maintenance of children's playgrounds and sports playing fields as areas that most needed attention.

In its May 2013 Water Assessment Report, the Merrimac Lakes and Waterways Commission identified the need to continue to educate the residents along the lake to limit fertilizer run off in to the lake during the spring. This effort remains key to controlling both the cyanobacteria and milfoil in the Lake, as well as controlling animal waste entering the lake.

The Town of Merrimac has a Senior Center that provides recreational opportunities and services for seniors. The center offers Bocce Ball, a pool table, a reading room and lending library, yoga, exercise classes, and games and crafting activities. The Senior Center also has a walking club, lectures and parties. Day trips to area theaters and New York City, as well as longer overnight trips to destinations such as Nova Scotia are also offered to Merrimac seniors through the center. As the population ages, it will be important to maintain and expand these recreational opportunities for seniors

All of Merrimac's open space and recreation facilities are free of charge and open to residents from all income levels. It can be challenging for lower income children to participate in organized sports that have a registration fee.

The Town's major facilities were evaluated for accessibility for this Open Space and Recreation Plan update. Appendix C includes field reports about the accessibility of relevant open spaces. The Pentucket Regional School District is responsible for the ADA/Section 504 plan for all schools and playgrounds under its jurisdiction. The school playgrounds, the Pentucket Regional High School, and the elementary schools are not fully accessible.

7.3 Management Needs

Local Capacity

With the day-to-day demands of local government, the Town's key staff members are very busy and currently there is no reserve capacity to focus on open space acquisition and management, or expanding recreation programs. Merrimac relies on volunteers to protect and manage open space and to administer recreation programs, and likely will continue to do so in the near future. Merrimac needs to build on its successes and increase its capacity to protect and manage its open space, natural resources and recreation amenities.

The Open Space Committee, the Playground Committee and the Conservation Commission provide sustained volunteer manpower for realizing open space, natural resource and recreation objectives. Merrimac has many residents who care about protecting the Town's natural resources and desire additional recreation programs. People expressed their willingness to volunteer in 'done-in-a-day' projects such as blazing trails or organizing a park or pond cleanup. However, there are many more tasks than there are volunteers to complete them. Merrimac needs assistance to manage open space acquisitions, fundraise and provide stewardship.

Local Regulatory Policy

Merrimac adopted a new Zoning Bylaw that includes a Rural-Agricultural Preservation Overlay District, Open Space-Residential Development regulations, and a Lake Attitash District in 2004 In addition, the Town adopted a local wetlands bylaw to augment M.G.L. c.131,ss 40, the Massachusetts Wetlands Protection Act. These are the Town's key policy to manage its open space and water resources.

There are several opportunities to increase regulatory efficacy. These tools often require fewer human and financial resources from the Town after they are adopted, but do require community investment. Boards and commissions responsible for implementing new regulations, e.g., Conservation Commission, Planning Board, Zoning Board, Open Space Committee, Playground Committee and the Historical Commission, will require staff support and access to technical support from allied professionals such as a land use planner, wetland scientist, engineer, economic development analyst or architect. The Action Plan in Section 9 includes actions to explore new regulations, and pursue those that are achievable.

Financial Needs

The Town of Merrimac does not have a dedicated source of revenue for open space acquisition and stewardship. Because resources are scarce, Merrimac will have to purchase land very strategically and develop management plans that volunteers can implement. Open space acquisition should be linked to protection and stewardship of the most significant parcels

The Town should consider sources of revenue such as a conservation fund, a revolving fund, the Community Preservation Act (CPA), a local open space and recreation bond, and user fees. The Town should seek state and federal grant funds and private matching funds to leverage scarce local resources.

8.0 Goals and Objectives

8.1 Updated Goals and Objectives

Merrimac needs to address its open space goals in ways that make environmental, economic and fiscal sense for a small town. The 2016-2023 Open Space and Recreation Plan identifies goals and a supporting action plan that will lead to an open space and recreation system that meets the needs of the population and the wildlife in Merrimac. The goals and objectives reflect the back ground research conducted for this plan, the public survey results, and input from the public forum.

This section lists the objectives identified for each of the five goals.

Goal 1: Preserve land that protects wildlife habitat and greenway corridors.

- Objective 1.1: Prioritize land acquisition and stewardship near natural corridors and emphasize environmental protection and linkages.
- Objective 1.2: Identify methods and financial and personnel resources needed to acquire land and provide maintenance for greenway corridors.

Goal 2: Foster a sense of community by providing open space resources for residence of all ages and abilities through accessible parks and recreational facilities and increased awareness of these resources.

- Objective 2.1: Locate small parks and play spaces and/or trail access points within walking distance of every Merrimac neighborhood.
- Objective 2.2: Develop and maintain recreation facilities for a variety of activities to serve residents of all ages and abilities.
- Objective 2.3: Recognize sidewalks as an important component of Merrimac's recreation and transportation infrastructure.

Goal 3: Safeguard water resources for drinking water, habitat and recreation.

- Objective 3.1: Develop a comprehensive strategy for protecting water resources that emphasizes regulation, conservation and education and outreach about property management.
- Objective 3.2: Identify the resources needed to implement the water resource protection strategy.

Goal 4: Support the continuity and vitality of agriculture in Merrimac.

Objective 4.1: Include agriculture in town-wide decision making about land use, economic development, taxation, and open space and natural resources protection.

Goal 5: Engage Town departments and residents in implementation of the plan and stewardship of Merrimac's natural resources, historic landscapes and landmarks.

Objective 5.1: Increase the Town's capacity to protect and manage historic and cultural assets.

Objective 5.2: Monitor progress in implementing the plan and maintain engagement of other Town departments and the public.

9. Seven-Year Action Plan

Section 9.0 provides a Seven Year Action Plan for realizing the goals and objectives outlined in Section 8.0. Map A.7 depicts areas in Town where future land protection efforts should be focused to implement elements of the Action Plan. The Action Plan includes specific actions for each objective, and identifies responsible parties and potential funding sources for accomplishing the plan's goals and objectives. The group designated to implement each objective and action should assume the lead responsibility, with assistance from other individuals and groups. The Open Space Committee will have oversight over the implementation of the plan, and will periodically review the action plan to ensure its implementation and adjust the implementation schedule as necessary.

The seven-year action plan reflects the interest and priorities expressed by the residents of Merrimac and its community leaders. The asterisks in the plan table refer to the level of priority of each action step, as described in the key to the table.

Goal 1: Preserve land that protects wildlife habitat and greenway corridors.

<u>Objective 1.1</u>: Prioritize land acquisition and stewardship near natural corridors and emphasize environmental protection and linkages.

ACTION	IMPLEMENTATION MANAGER	FUNDING SOURCE	TARGET DATE
***Secure permanent preservation on the Town Forest.	Open Space Committee	NA	2021
** Secure protection for other priority parcels.	Open Space Com.	Town meeting appropriati on; State and Foundation Grants	2019- 2024
**Develop management plans for town-owned open space that include a range of allowed public uses, maintenance of trees and vegetation, and maintenance of the public trails including clearing overgrowth and sign posting.	Open Space Com.	DPW Budget and volunteers	2019 - 2024

<u>Objective 1.2</u>: Identify methods and financial and personnel resources needed to acquire land and provide maintenance for greenway corridors.

ACTION	IMPLEMENTATION MANAGER	FUNDING SOURCE	TARGET DATE
***Educate citizens about Open Space and recreational locations in their neighborhoods and throughout Town, including public water access, to encourage use and support for new initiatives.	Open Space Committee	NA	2016 - 2024

** Distribute and post materials on the Town website informing landowners of the potential tax benefits of donating land or conservation restrictions.	Open Space Committee	NA	2016 and bi- annually
***Maintain formal relationships between the Open Space Committee and conservation groups (e.g., Essex County Greenbelt Association, Essex County Trails Association) to partner on complementary land acquisition projects for fundraising (matching requirements), grant writing, negotiation, outreach/education and land stewardship.	Open Space Committee with assistance from Town administrative leadership	NA	Ongoing
*If fiscally advisable, work for passage of the Community Preservation Act.	Open Space Committee	Town with assistance from partners such as the Community Preservation Coalition	2022
** Explore regulatory tools that the Town could	Open Space	NA	2020-
adopt to preserve and protect land.	Committee		2023

Goal 2: Foster a sense of community by providing open space resources for residence of all ages and abilities through accessible parks and recreational facilities and increased awareness of these resources.

<u>Objective 2.1</u>: Locate small parks and play spaces and/or trail access points within walking distance of every Merrimac neighborhood.

ACTION	IMPLEMENTATION MANAGER	FUNDING SOURCE	TARGET DATE
**Require developers of cluster subdivisions to protect/improve the open space they set aside with playing fields, walking trails, etc., and to clearly identify the party(s) responsible for oversight.	Planning Board	NA	2016- 2024
**Require tot lots or small parks as a condition of approval for developments of conventional subdivisions of over 35 homes.	Planning Board	NA	2019- 2024
* Notify Open Space Committee and Playground Committee when the Town takes tax title properties.	Board of Selectmen	NA	2019- 2024

Objective 2.2: Develop and maintain recreation facilities for a variety of activities to serve residents of all ages and abilities.

ACTION	IMPLEMENTATION MANAGER	FUNDING SOURCE	TARGET DATE
***Create a children's playground at the Steven Fields.	Playground Committee	Town meeting appropriation and grants	2017-19
**Improve access to the Merrimack River by designating a canoe and kayak launch and providing signage to inform the public at townowned property at the foot of Locust Street.	Open Space Committee	Open Space budget	2018 - 2021
***Increase public awareness and use of the Merrimack River at Carey Park by improving signage and creating designated parallel-street parking.	Open Space Committee	Open Space budget and Town Meeting appropriation	2018- 2022
**Develop a recreation site plan to better utilize Carrriagetown Park.	Department of Public Works (DPW)	NA	2019
***Determine if options can be found to reestablish public access to the beach at Indianhead Park.	DPW	NA	2020- 2022
** Work with Boy Scout troops to encourage adoption of Eagle Scout projects that result in permanent trail improvements.	Open Space Com.	NA	2019- 2024
** Work to enhance access to existing open space and recreation facilities for people with disabilities, including adding signage and parking where possible.	Board of Selectmen	Town Meeting appropriation	2019- 2023

 $\underline{Objective~2.3} \colon \ \, \text{Recognize sidewalks as an important component of Merrimac's recreation and transportation infrastructure.}$

ACTION	IMPLEMENTATION MANAGER	FUNDING SOURCE	TARGET DATE
***Include in management and maintenance of Town roads sidewalk installation, snow removal, and general upkeep.	DPW	Town highway funds	Ongoing
**Require subdivision developments to include sidewalks on at least one side and street trees on both sides of newly created streets.	Planning Board	NA	Ongoing
*Organize neighborhood groups to plant and care for street trees along the Town's sidewalks.	Open Space Com.	NA	2020

Goal 3 Safeguard water resources for drinking water, habitat and recreation.

<u>Objective 3.1</u>: Develop a comprehensive strategy for protecting water resources that emphasizes regulation, conservation and education and outreach about property management.

ACTIONS	IMPLEMENTATION MANAGER	FUNDING SOURCE	TARGET DATE
***Actively use the provision in the Town's local Wetland Bylaw that allows the Conservation Commission to require conservation restrictions on unaltered water resources in the Water Resource Protection District as a condition of its Order of Conditions.	Conservation Commission	NA	Ongoing
*Prohibit underground sprinkler systems from connecting to the public water supply, and require all new construction/major rehabilitation projects to use water-conservation fixtures.	DPW	NA	2020
*Adopt septic system cleaning/maintenance regulations.	Board of Health	NA	2016
** Explore regulatory tools that the Town could adopt to protect water resources.	Open Space Committee	NA	2020- 2023

<u>Objective 3.2</u>: Identify the resources needed to implement the water resource protection strategy.

ACTIONS	IMPLEMENTATION MANAGER	FUNDING SOURCE	TARGET DATE
**Seek ways to leverage Town funds with state grants and private matching funds for water protection.	Conservation Commission	Grants	2020
* Partner with the Merrimack River Watershed Council (MRWC) to identify critical parcels for protection.	Open Space Committee	NA	2021

Goal 4: Support the continuity and vitality of agriculture in Merrimac.

Objective 4.1: Include agriculture in Town-wide decision making about land use, economic development, taxation, and open space and natural resources protection.

ACTIONS	IMPLEMENTATION MANAGER	FUNDING SOURCE	TARGET DATE
** Promote the availability of locally-produced farm products.	Open Space Committee	NA	Ongoing
*Organize an agricultural forum at the Library	Open Space		

to introduce locally produced products and learn	Committee	NA	2020
about the many local farming practices.			

Goal 5: Engage Town departments and residents in implementation of the plan and stewardship of Merrimac's natural resources, historic landscapes and landmarks.

Objective 5.1: Increase the Town's capacity to protect and manage historic and cultural assets.

ACTIONS	IMPLEMENTATION MANAGER	FUNDING SOURCE	TARGET DATE
**Establish historic preservation committees in Merrimac Center and Merrimacport comprised of residents in each neighborhood to be responsible for inventory, research, education, outreach and decision-making regarding the establishment of national and/or local historic districts, including natural historic components and landscapes.	Historic Commission	Volunteer action	2019
**Use the Massachusetts Scenic Roads Act M.G.I. c.40 <u>s's</u> 15C to designate Scenic Roads to protect primarily stone walls and significant trees along Bear Hill Road, Birch Meadow Rd (along the APR farm), Hadley Road, Heath Road, and Locust Street.	Planning Board	NA	2019- 2023

Objective 5.2: Monitor progress in implementing the plan and maintain engagement of other Town departments and the public.

***Annually review action items and priorities and periodically seek public input about open space and recreation issues.	Open Space Committee	NA	2019- 2024
***Notify the Open Space Committee when properties are removed from the Chapter 61 tax relief program.	Assessors	NA	2019- 2024
** Bi-annually meet with other Town committees and departments to determine the status of action items and the possible need for modifications.	Open Space Com.	NA	2020, 2022, 2024

Key:

^{*** -} Highest priority

^{** -} Medium priority

^{* -} Lowest priority.

"Here is your country. Cherish these natural wonders, cherish the natural resources, cherish the history and romance as a sacred heritage, for your children and our children's children. Do not let selfish men or greedy interests skin your country of its beauty, its riches or its romance.

- Theodore Roosevelt

10 Public Comments

Public comments on the draft Open Space & Recreation Plan were received from the following:

Merrimac Board of Selectmen Merrimac Planning Board Merrimac Conservation Commission Merrimack Valley Planning Commission

Copies of the comment letters are displayed on the following pages.



TOWN OF MERRIMAC OFFICE OF THE BOARD OF SELECTMEN

2-8 School Street, Merrimac, MA 01860 TEL (978) 346-8862 E-MAIL selectmen@townofmerrimac.com

October 31, 2016

Town of Merrimac Open Space Committee 2 School Street Merrimac, MA 01860

To Members of the Open Space Committee:

The Merrimac Board of Selectmen acknowledges receipt of the Open Space & Recreation Plan 2016 - 2020. The selectmen hereby approve Open Space's plan, as submitted in October 2016 and acknowledge the successful completion of said plan. Please do not hesitate to contact the Selectmen's Office with any further questions or concerns. Thank you.

Sincerely, Merrimac Board of Selectmen

Harold Lloyd

Chairman

Andrew D. Connor

W. Earl Baumgardner

CONSERVATION COMMISSION THE TOWN of MERRIMAC 4 School St., Merrimac MASSACHUSETTS 01860



November 28, 2016

Ms. Carrie Rennie Merrimac Open Space Committee 4 School Street Merrimac, MA 01860

Subject: Town of Merrimac, Open Space and Recreation Plan, 2016-2020

Dear Ms. Rennie:

The Merrimac Conservation Commission has reviewed the document entitled "Town of Merrimac, Open space and Recreation Plan, 2016-2020" dated October 2016.

The Commission is in support of the goals and objectives outlined in this plan, and the Commission intends to assist you in implementing the Five-Year Action Plan as it pertains to our work. Notably, we support the goal of increasing the protected conservation land in town, and we recognize the importance of establishing three open space corridors and prioritizing acquisition and resource protection in these corridors and in the Merrimack River watershed.

As the Town moves forward to pursue properties for conservation protection, we anticipate supporting that effort. In addition, we are hopeful that this plan will provide the Town with expanded opportunities to obtain federal, state, and private grants for project implementation and open space enhancement.

We'd like to express our thanks to you and the other Open Space Committee members for your hard work and the opportunity to comment on the plan.

Best Regards

Merrimac Conservation Commission Robert Prokop, Chairman



PLANNING BOARD 2 SCHOOL STREET MERRIMAC, MA 01860

January 4, 2017

Carrie Rennie, Chair Open Space Committee Town of Merrimac

Dear Ms. Rennie,

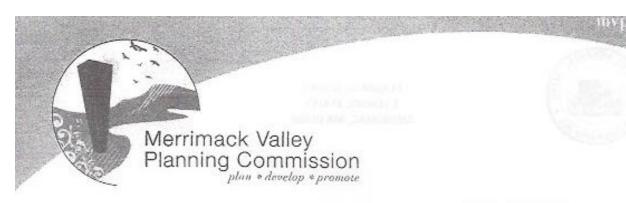
The Merrimac Planning Board has reviewed the draft of the 2016-2020 Open Space and Recreation Plan prepared by the Merrimac Open Space Committee. We fully support the goals and objectives outlined in the five-year action plan and will assist in every way possible to implement the plan, as it pertains to the work of the Planning Board.

The Board wishes to express its appreciation to the members of your committee for the effort necessary to provide the community with this comprehensive document.

Sincerely,

Sandra Venner

Chair



January 24th, 2017

Carrie Rennie Merrimac Open Space Committee Town Hall 2 School Street Merrimac, MA 01860

Re: Merrimac Open Space & Recreation Plan Update

Dear Ms. Rennie WML

The Merrimack Valley Planning Commission has reviewed the most recent draft of the update of Open Space and Recreation Plan prepared by the Town of Merrimac.

You and the Town Open Space Committee are to be commended for the multi-year effort undertaken in the plan update which has included community visioning and reassessment of priorities for open space, active recreation facilities and natural resource protection.

Based on our review, the plan appears to incorporate all required plan elements. Suggested edits include addition of survey results and documentation of comments and info received at the public meetings you held on the plan.

MVPC is fully supportive of the plan implementation goals and strategies which are consistent with both the Merrimack Valley Region Priority Growth Strategy and the Regional Multi-Hazard Mitigation Plan 2016 Update.

We look forward to continued working with the Town in the years ahead in acting on plan recommendations.

Thank you again for your work and please contact me at (978)374-0519 x16 if we at MVPC can be of any further assistance.

Sincerely,

Joseph M. Cosgrove

Environmental Program Manager

160 Main Street, Haverhill, MA 01830

phone - 978.374.0519 • fax - 978.372.4890

REFERENCES

Camp Dresser & McKee. Town of Amesbury *Lake Attitash Watershed Management Plan: Executive Summary*. 25 January 1999.

City-Data, http://www.city-data.com/city/Merrimac-Massachusetts.html

Clegg, Donna M. "Merrimac farm runoff into lake makes for intertown debate." *The Eagle Tribune*. 28 September 2004.

Commonwealth of Massachusetts. ""An Act to Regulate the Catching of Salmon, Shad and Alewives, and to Remove and Prevent Obstructions in Merrimack River, and in the Other Rivers and Streams Running into the Same, within this Commonwealth, and for Repealing Several Acts Heretofore Made for that Purpose." 24 October 1783.

Community Opportunities Group, Inc. Merrimac Master Plan. 2002.

Executive Office of Environmental Affairs. *Watershed Action Plan for the Merrimack River Watershed 2002-2007*.

http://www.mass.gov/envir/publications/Merrimack/Merrimack_WAP_2002.pdf [cited 21 June 2005].

Executive Office of Environmental Affairs. Division of Conservation Services. *Massachusetts Outdoors* 2000!, SCORP 2000-2005. http://www.state.ma.us/envir/dcs/global/publications.htm [cited 6 December 2004].

Harvey, Pamela D. General Counsel, Massachusetts Department of Environmental Protection.

"Opportunities and Obstacles in Watershed-Based Regulatory Programs."

http://www.epa.gov/owow/watershed/Proceed/harvey.html

Massachusetts Bureau of Environmental Health Assessment. "Freshwater Fish Consumption Advisory List." April 2004. < http://www.mass.gov/dph/beha/fi shlist.htm> [cited 29 November 2004].

Massachusetts Department of Environmental Management. *Massachusetts Landscape Inventory: A Survey of the Commonwealth's Scenic Areas.* 1982.

Massachusetts Department of Environmental Protection. Office of Research and Standards. *Final Report: Fish Mercury Levels in Northeast Massachusetts Lakes*. December 2003. http://www.mass.gov/dep/ors/files/fishmerc.pdf> [cited 29 November 2004].

Massachusetts Division of Fisheries and Wildlife. "Rare Species by Town."

http://www.mass.gov/dfwele/dfw/

hesp/townm.htm#Merrimac> [cited 2 December 2004].

Massachusetts Executive Office of Labor and Workforce Development, 2012 Economic Census City-Data.com

Massachusetts Watershed Initiative Program. *Shoreline Survey Report and Action Plan for Cobbler's Brook in Merrimac*. August 1999.

Merrimack Valley Metropolitan Planning Organization. *FY 2005-2009 Transportation Improvement Program*. http://www.mvpc.org/transport_sec/transimprov.html [cited 21 June 2005].

Merrimack Valley Planning Commission. Comprehensive Economic Development Strategy 2004.

http://www.mvpc.org/services_sec/EcDev/CEDS_Page.htm [cited 21 June 2005].

New England Game and Fish Magazine. "Fish Index." http://www.newenglandgameandfish.com/ng_aa033404a/index1.html [cited 15 November 2004].

Roy Mann Associates Inc. Master Plan for Merrimac. 1977.

School of Park and Recreation Management, Northern Arizona University. "NRPA Standards."

http://www.prm.nau.edu/recreation_standards.htm [cited 9 December 2004].

Spinney, Edward. *A Surficial Geology Field Trip Guide*. http://www.necc.mass.edu/mrvis/mr1 10/start.htm [cited 15 November 2004].

Tata & Howard. Facilities Plan for Merrimac Wastewater Treatment Facility. December 1998.

The Center for Watershed Protection. http://www.cwp.org/whats_a_watershed.htm

The Merrimack River Watershed Council. http://www.merrimack.org/ [cited 21 June 2005].

Town of Merrimac Board of Health. http://www.merrimac01860.info/government/board_health.shtml [cited21 November 2004].

Town of Merrimac Water Department. Water Quality Report. June 2003.

Turenne, Jim. "Soil Service Update: Plymouth County General Soil Map."

 [cited 5 November 2004].

US Census Bureau, Census of Population, 2000 and 2010

U.S. Department of Agriculture. Soil Survey of Essex County Massachusetts.

http://nesoil.com/essex/index.htm

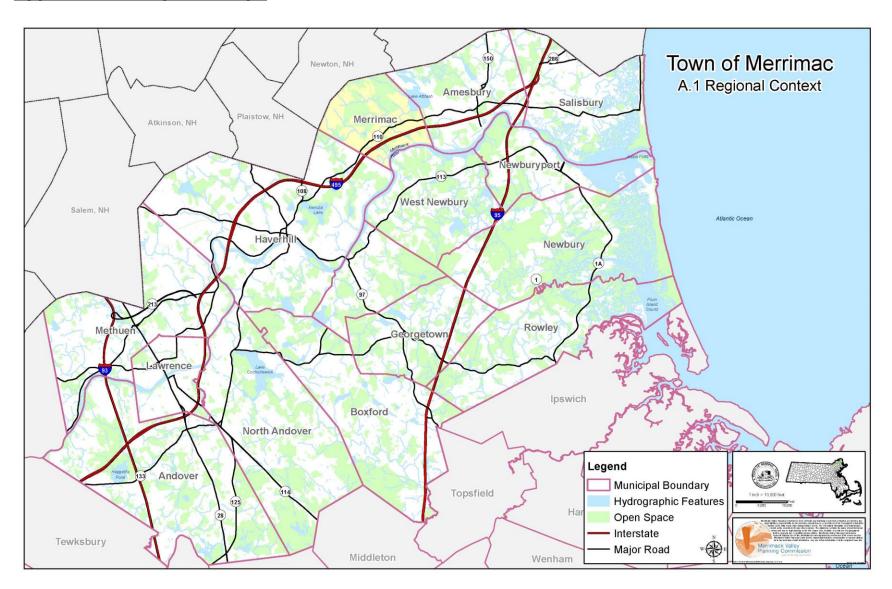
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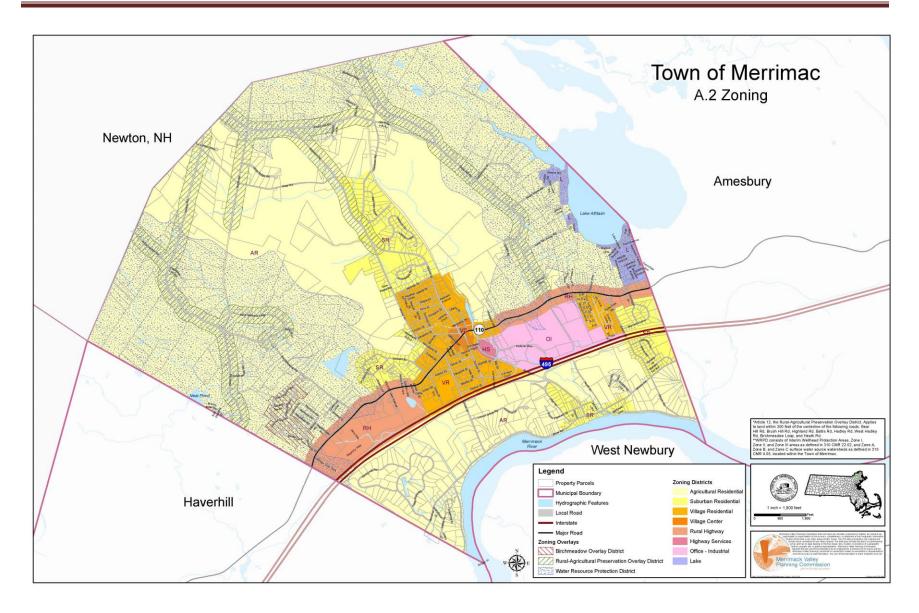
U.S. Department of Fish and Wildlife. Central New England Fishery Resources Offi ce. "Anadromous Fish Returns to Merrimack River." http://www.fws.govr5eneafp/returns.htm [cited 2 December 2004].

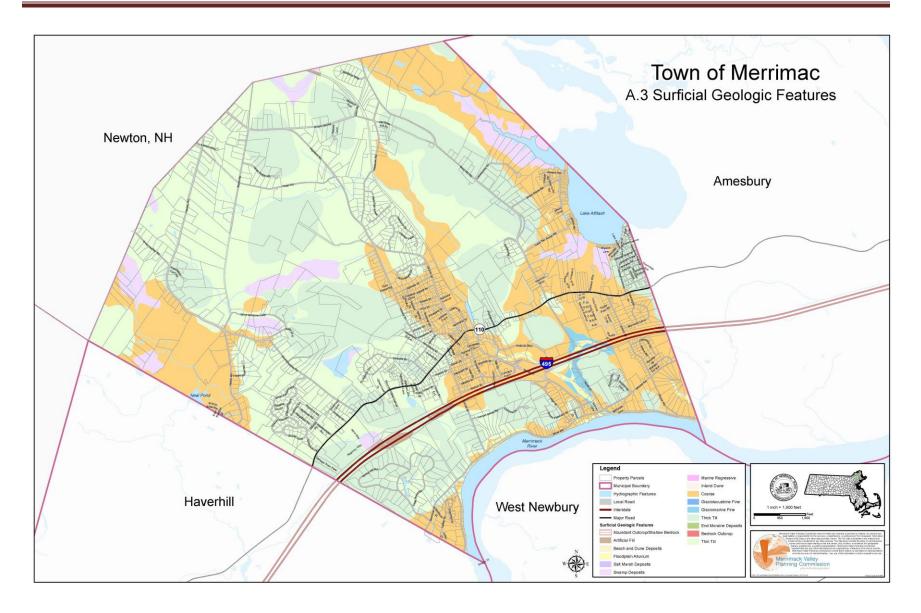
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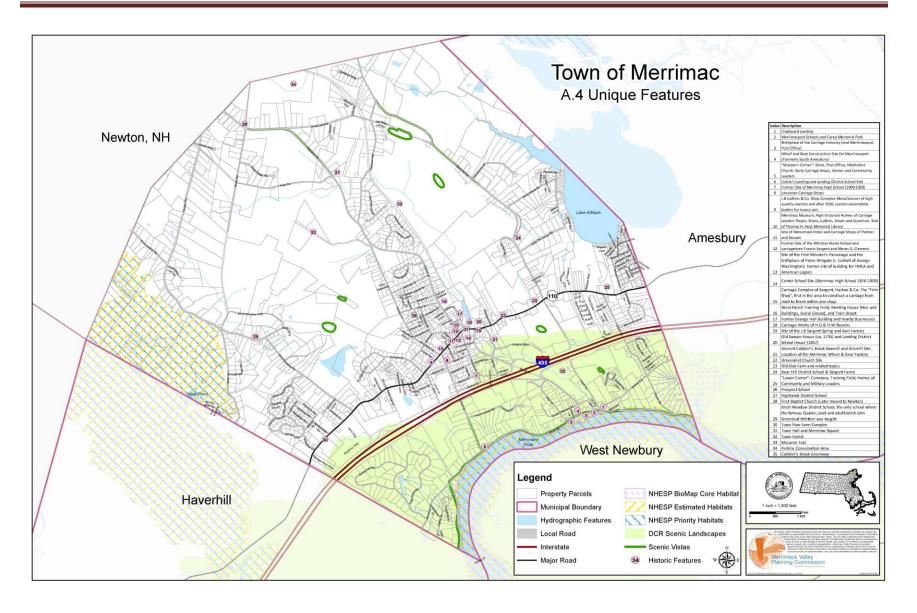
Warehouse,"http://oas.pub.epa.gov/enviro/multisys_web.report [cited 6 December 2004].

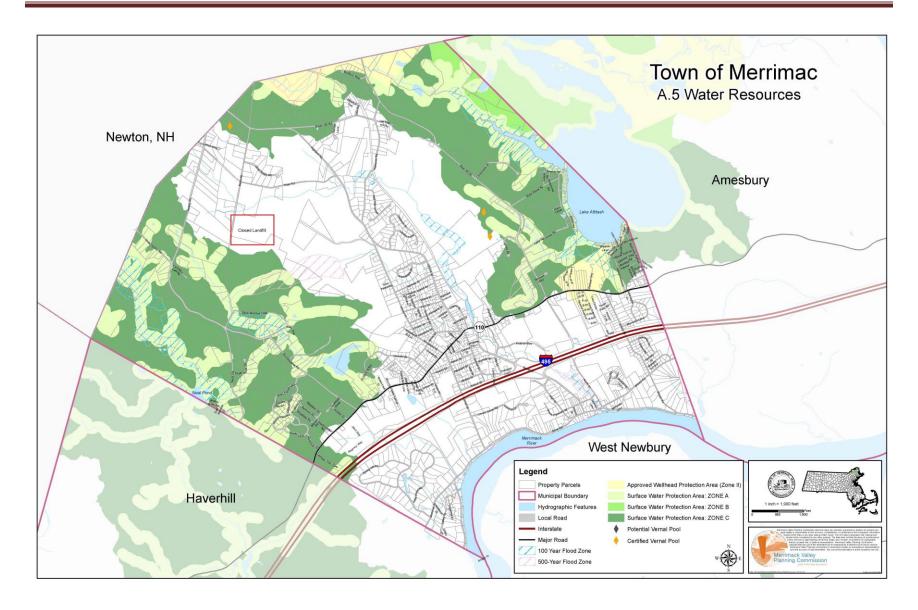
Appendix A: Required Maps

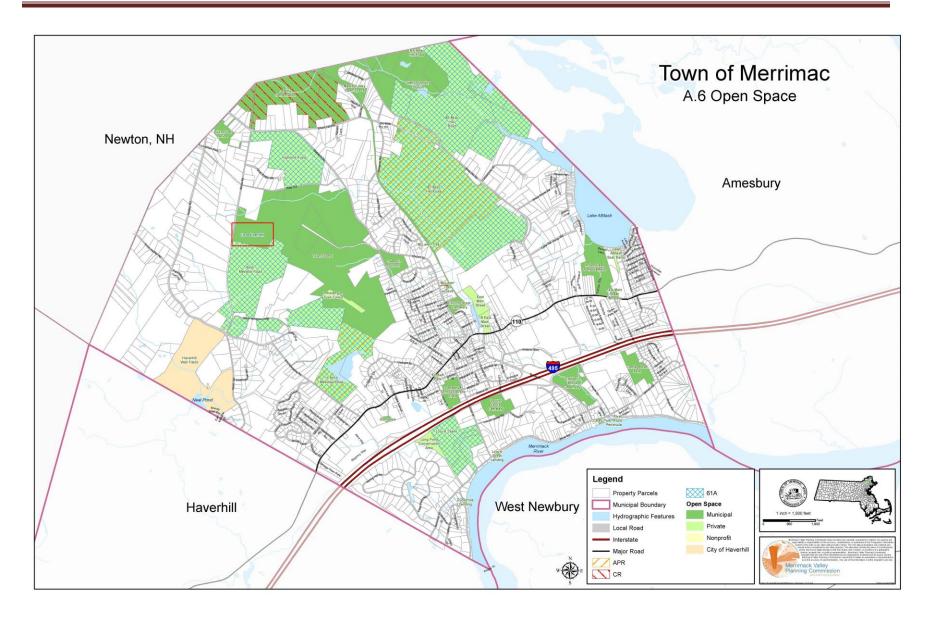


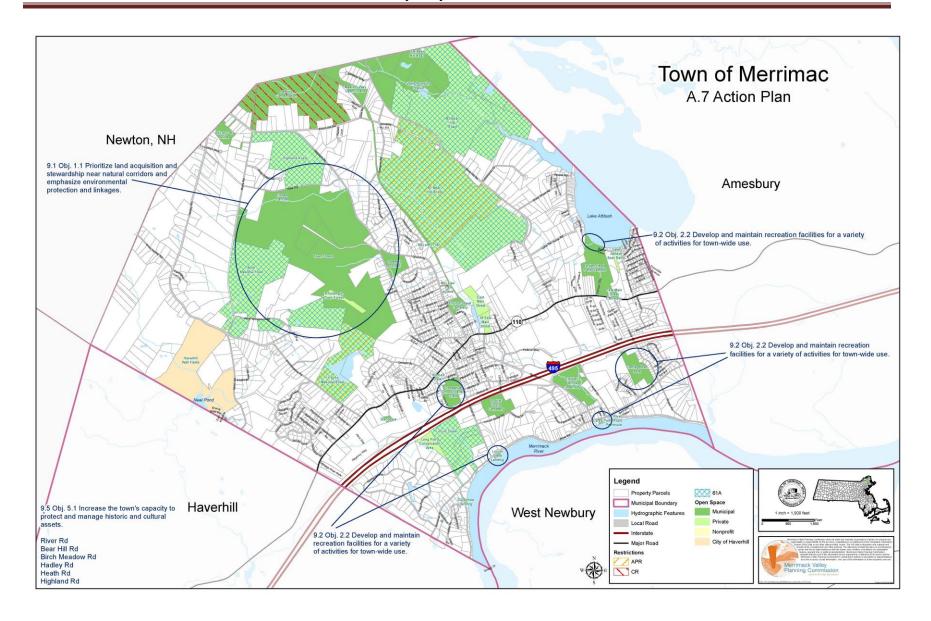












Appendix B: Survey and Survey Summary

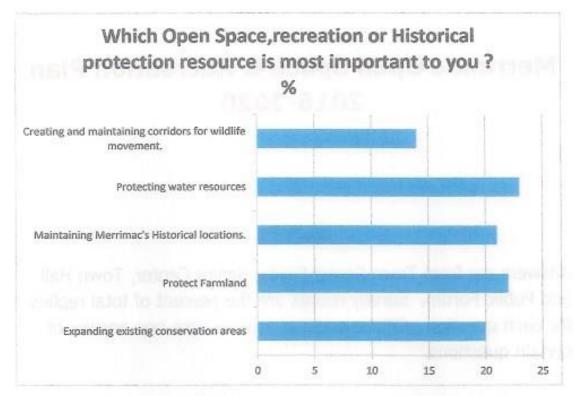
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Merrimac's	Open Space and Recreation Plan 2015
~	Please answer questions for a survey.
	creation or historical protection resources of Merrimac is most
important to you? (Ch	
	ing conservation areas
Protect Farmla	
Protecting wate	rrimac's Historical locations
	aintaining corridors for wildlife movement
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Parking/seating	
Location	
Playgrounds alo	ng the fields
Facilities	
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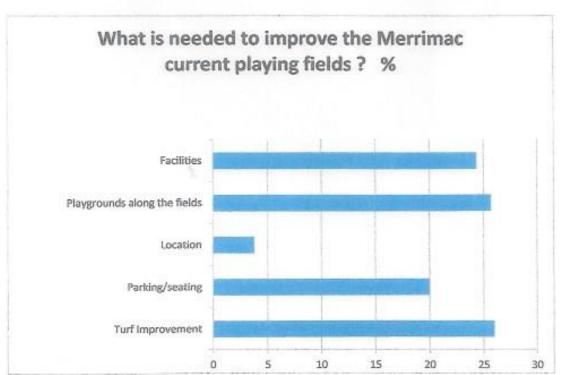
5. Which trails or conservation	on areas would you	u use if update	d and/or maintair	red?
(Check all that apply.)	roilroad bod\			
McLaren Trail (old	-	rkins Consonio	tion Land	
Marshview and Int	-		LION LANG	
· ·	d and Highland St)		i.cr	
Water access – La				ما ما امسطفنانا
Town Forest – beh	•	,	ig rigmano ko to	old landilli
Cobbler's Brook Tr	all along broad Su	reet		
6. Should Merrimac be prote	cting the current (Open Spaces (a	ıka: Town Forest, I	Perkins
Conservation, Cobbler's Brook				
				,**
0 1				
Not interested	Somewhat	interested	Highly inte	erested
7. Should the town use the M Merrimac to protect stonewa (River Road has this designat) ——Highland Road ——Bear Hill Road ——Hadley Road O 8. Which Open Space, Recrea or better maintained by the T	Ils and significant ion.) ther (specify):	trees along and	y of the following) les should be furth	streets?
Child playgrou				
Sport playing	field			
Dog park				
	to water ~ Lake At	titash/Merrim	ack River	
	dmarks/buildings			
Other specify	•			
9. What neighborhood of tow recreation areas. (Please fill in	-	-	eserved open spa	ce and/or
Examples: Birch Meadow/	•	•	a Church/Highlar	nd Rd
	West or East of M		a, charchy highlan	ia na
	rimac –North or Sc			
Specific area and need:		•		
		·		
10. Please add any further cor	nments			

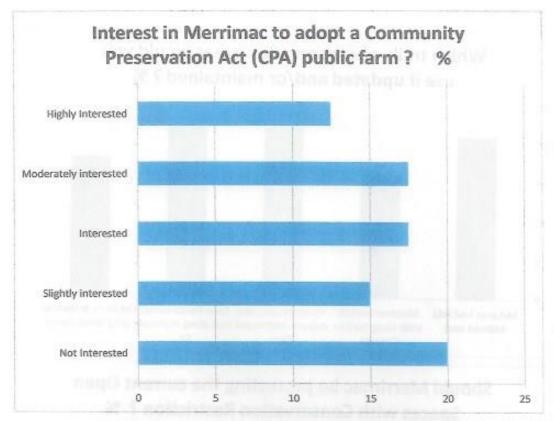
Merrimac Open Space & Recreation Plan 2016-2020

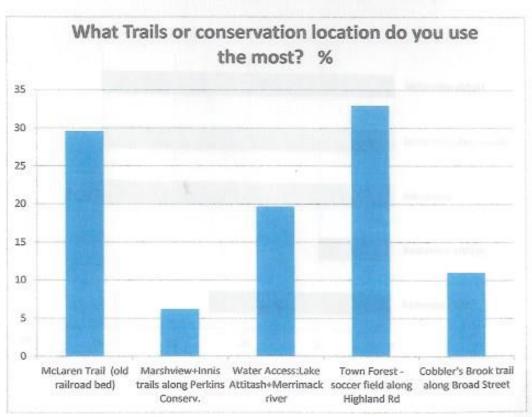
Survey

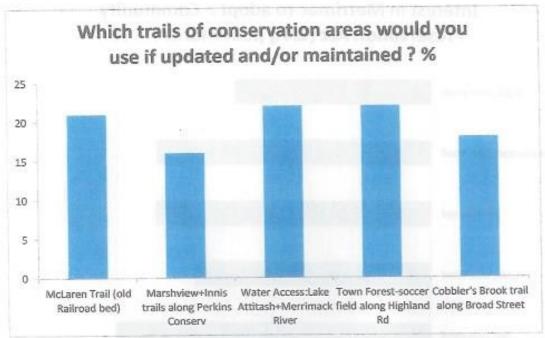
Answers are from Town Forest Fields, Senior Center, Town Hall and Public Forum. Survey results are the percent of total replies for each question. Citizen could pick more than one answer of certain questions.

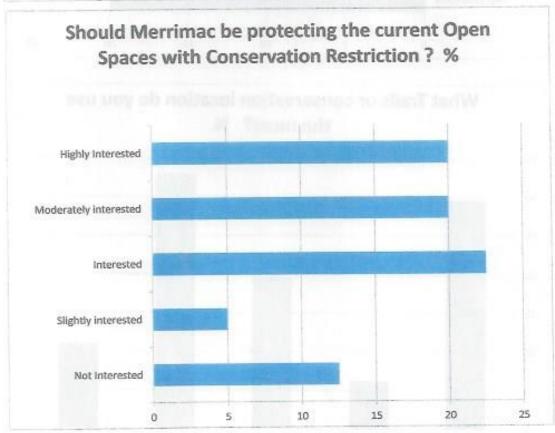


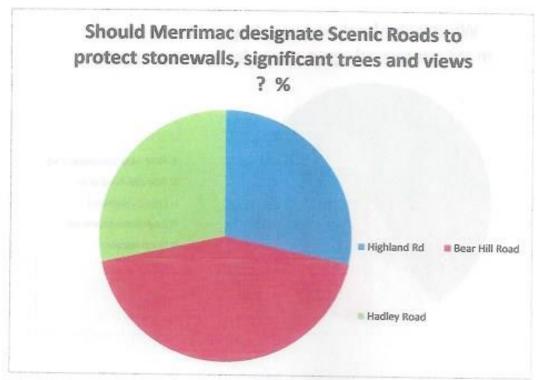


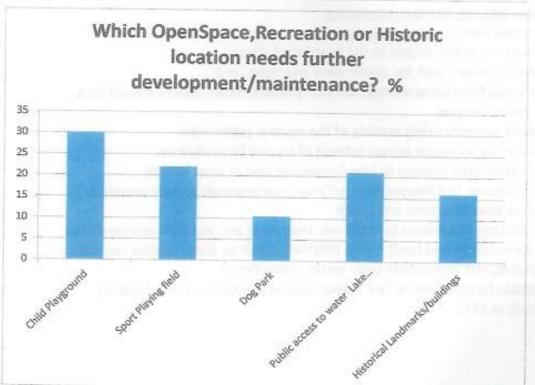


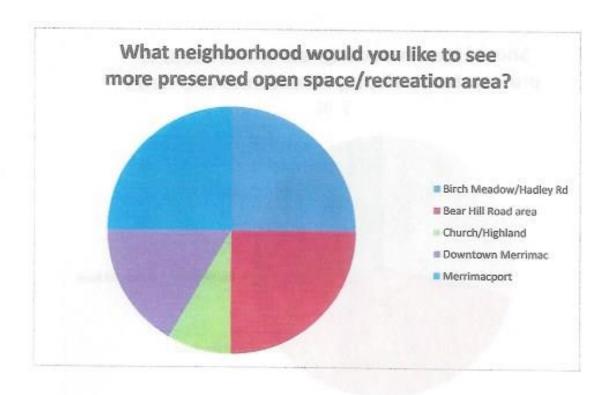












Please add any furthur comments.

Merrimacport - public water access

I would like public access to the Merrimack River

Along the river - park for scenic view and open land

Stay away from State money, too many hooks -Town Square should be a lesson (x2 people)

To walk and ride safely outside of the square. (sidewalks)

More areas w/ easier access outside of square for walk/bike.

Recreation area needed to lake for pedestrians or boat launch.

Water access: Old Sawyer House/Town Improvement Society property, 17 acres boarding pond and brook.

Ban Motorized vehicles in Merrimac town land and also in watershed area (Haverhill owned land) Heath Hill/Hadley Rds to allow passive recreation (hiking,etc) compatible with water protection.

Maintain former Central Fire Station and Senior Center (28 School St) built in 1871.

Appendix C: ADA Forms and Required Documentation

Handicapped Access to Municipally-Owned Open Space and Recreation Facilities - Section 504 Self-Evaluation

This appendix documents existing handicapped accessibility to open space and recreation facilities owned by the Town of Merrimac, and provides steps for improving accessibility over time.

Part I: Administrative Requirements

1. Designate a 504 Coordinator

See attached letter designating the Director of Public Works as the Town's ADA Coordinator.

2. Grievance Procedures

Grievance procedures for the general public are outlined in the Town of Merrimac's Grievance Procedures Under the Americans with Disabilities Act, which was adopted in 2008. A copy of the Grievance Procedure is included in the attachments to this appendix. The Town's Inspectional Services Department works with the Board of Selectmen in improving the accessibility of public buildings for persons with disabilities. The Building Inspector serves as a general source of information on disability issues.

3. Public Notification Requirements

The Town adopted a formal ADA Discrimination Policy that states that the Town does not discriminate on the basis of disability in admission to, or operations of its meetings, programs, services or activities. A copy of the policy is attached to this appendix. The policy states that the Town will, upon request, provide communications in forms accessible to persons with disabilities, including sign language, Braille, and other techniques to assisted the hearing, visual or speech impared. The Town's employment application stipulates that the Town is an Equal Opportunity/Affirmative Action Employer (see attached notice for the assistant treasure position, which includes such wording.)

4. Participation of Individuals with Disabilities of Organizations Representing the Disabled Community

Mel Briggle, a member of the Merrimac handicap community and the Open Space Committee, completed the Facility Inventory Self-Evaluation Surveys for the 2016 plan.

Part II: Program Accessibility

The Town assessed accessibility at nine town-owned conservation and recreation properties with trails, playing fields or playgrounds. These properties, for which ADA compliance sheets were completed, are:

- Donaghue School/Stevens Athletic Fields
- Carriagetown Park
- Locust Street Landing
- Town Forest

- Kimball Park
- Sweetser School/Playground
- Carey Park
- McLaren Trail
- · Perkins Conservation Land
- Cobblers Brook Greenway

The completed ADA inventory forms for each of these properties are attached to the end of this Appendix. Note that the Donaghue School and the Sweetsir School are under the jurisdiction of the Regional School District, not the Board of Selectmen or the Conservation Commission.

Transition Plan

The ADA inventory found that none of these properties have specific improvements or signage to accommodate handicapped persons. Only one of these properties, Donaghue School/Steven Athletic Fields, has a structure. Stevens Fields has a restroom. A transition plan has been developed for this property and for Carriagetown Park, where better access to one of the ball fields is needed.

The evaluation forms make clear that accommodations for handicapped parking are necessary at each of the properties. In addition, the Department of Public Works, at the direction of the Board of Selectmen and in conjunction with input from the Open Space Committee should make improvements to grading and access points to fields to ensure that the properties can be accessed by people with disabilities. The Action Plan in Section 9 includes a step to accomplish this under Goal 2, Objective B.

Transition Plan: Donaghue School/Stevens Athletic Fields

While this facility is under the jurisdiction of the Regional School District, the Town will promote the improvements included in this plan for the playing fields. The playing fields at this facility include 4 ball fields, 2 basketball courts and 2 tennis courts. People using wheelchairs can access all of these fields. There are bleachers and benches at the fields, which are also accessible. Four benches have backs. There are between approximately 50 parking spaces at this facility, of which two are designated for handicapped users. However, these spaces serve the school and are not located in close proximity to the fields. The transition plan for this property includes two elements: 1) assess the feasibility of dedicating one to two handicapped parking spaces nearer to the playing fields, and 2) determine requirements to make the bathrooms attached to the concession stand handicap accessible, and develop a plan to remodel the bathroom to meet such requirements.

Transition Plan: Carriagetown Park

Carriagetown Park houses two ball fields used by youth and adult leagues. There is a parking lot at the facility, but there are no dedicated handicapped spots. There is a paved asphalt path that provides access to one of the fields. The other field is not handicapped accessible. There are no structures at the site. The transition plan for this parcel includes the following: 1) dedicate one handicapped spot and provide appropriate signage, 2) improve the access to the second field with either a even, hard-packed dirt path, or a paved path similar to the asphalt path serving the first field, and 3) erect a sign indicating accessible paths at the entrance to the paths to the fields.

Transition Plan: All Other Properties

The remaining properties for which ADA compliance sheets were completed are primarily conservation land with hiking trails. A few have benches. There are no plans to further improve these properties for additional uses. The transition plan for these properties includes three components: 1) designate a handicapped parking space at each property with a designated parking area, 2) ensure that all new benches installed at these sites can accommodate persons in wheelchairs, and 3) consider developing and installing interpretive signage that can be enjoyed by persons with disabilities, describing the property and its natural features.

Part III: Employment Practices

- **1. Recruitment.** Employment opportunities in Merrimac are open to all. The Town's job application and job announcements include a nondiscrimination statement and are posted in accessible areas. Job announcements are provided in an auditory format upon request. The Town does not inquire about an applicant's disability or its severity.
- **2. Personnel Actions** The town of Merrimac does not discriminate in recruitment, selection, hiring, or promotions.
- **3. Leave Administration** The Town's leave of absence policies do not adversely affect qualified employees with disabilities.
- **4. Training** Training programs are administered in a manner that allows equal participation by qualified employees with disabilities. Sign Language translation, Braille and other techniques to assisted disabled applicants and employees will be provided upon request.
- **5. Tests and other criterion must measure essential job requirements only** Tests are job-related and nondiscriminatory towards persons with impaired communications abilities.
- **6. Medical Examinations/Questionnaires** Pre-employment medical examinations are permissible only after conditional employment offers. Medical history questionnaires do not request information as to the nature or severity of an applicant's disability.
- **7. Social/Recreational Programs** Social and recreational programs sponsored by the community are accessible to employees with disabilities.
- **8. Fringe Benefits** Employees with disabilities are given the same employee benefits as non-disabled employees.
- **9. Collective bargaining Agreements** Terms and practices of collective bargaining agreements do not contain provisions that limit the participation of qualified employees with disabilities.
- **10. Wage and Salary Administration** Employees with disabilities are not offered different rates of compensation solely on the basis of disability.

Attachments

A letter signed by the chair of the Board of Selectmen naming the building inspector as the Town's ADA Coordinator, the Town's ADA Grievance Procedures, and the ADA Discrimination Policy are

attached. In addition, the ADA Self-Evaluation sheets, completed January and March 2019, are attached.



TOWN OF MERRIMAC OFFICE OF THE BOARD OF SELECTMEN

2-8 School Street, Merrimac, MA 01860 TEL (978) 346-8862 E-MAIL Selectmen@townofmerrimac.com

March 18, 2019

Merrimac Open Space Committee Attn: Sandra Venner 4 School St. Merrimac, MA 01860

Dear Ms. Venner:

The Town of Merrimac's Building Commissioner/ADA Coordinator is Robert Sinibaldi. Please let the board know if you need anything further.

Sincerely,

Merrimae Board of Selectmen

Joel D. Breen, Chairman



TOWN OF MERRIMAC INSPECTIONAL SERVICES

2 School Street, Merrimac, MA. 01860 (978) 346-0525

GRIEVANCE PROCEDURE UNDER THE AMERICANS WITH DISABILITIES ACT

This Grievance Procedure is established to meet the requirements of the Americans with Disabilities Act of 1990 ("ADA"). This may be used by anyone who wishes to file a complaint alleging discrimination on the basis of disability in the provision of services, activities, programs, or benefits by the Town of Merrimac

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

The complaint should be submitted by the grievant and/or his/her designee as soon as possible but no later than 60 calendar days after the alleged violation to: ADA Coordinator, 2 School St. Merrimac, MA 01860.

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

If the response by ADA Coordinator does not satisfactorily resolve the issue, the complainant and/or his/her designee may appeal the decision within 15 calendar days after receipt of the response to the Board of Selectmen.

Within 15 calendar days after receipt of the appeal, the Board of Selectmen will meet with the complainant to discuss the complaint and possible resolutions.

Within 15 calendar days after the meeting, the Board of Selectmen will respond in writing, and, where appropriate, in a format accessible to the complainant, with a final resolution of the complaint.

All written complaints received by ADA Coordinator, appeals to the Board of Selectmen, and responses from these two offices will be retained by the ADA Coordinator for at least three years.



TOWN OF MERRIMAC INSPECTIONAL SERVICES 2 School Street, Merrimac, MA. 01860 (978) 346-0525

PUBLIC NOTICE

In accordance with the requirements of title II of the Americans with Disabilities Act of 1990 ("ADA"), the Town of Merrimac will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs, or activities.

Employment: The Town of Merrimac does not discriminate on the basis of disability in its hiring or employment practices and complies with all regulations promulgated by the U.S. Equal Employment Opportunity Commission under title I of the ADA.

Effective Communication: The Town of Merrimac will generally, upon request, provide appropriate aids and services leading to effective communication for qualified persons with disabilities so they can participate equally in Town of Merrimac programs, services, and activities, including qualified sign language interpreters, documents in Braille, and other ways of making information and communications accessible to people who have speech, hearing, or vision impairments.

Modifications to Policies and Procedures: The Town of Merrimac will make all reasonable modifications to policies and programs to ensure that people with disabilities have an equal opportunity to enjoy all of its programs, services, and activities. For example, individuals with service animals are welcomed in The Town of Merrimac offices, even where pets are generally prohibited.

Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a program, service, or activity of the Town of Merrimac, should contact the office of the ADA Coordinator as soon as possible but no later than 48 hours before the scheduled event.

The ADA does not require the Town of Merrimac to take any action that would fundamentally alter the nature of its programs or services, or impose an undue financial or administrative burden. Complaints that a program, service, or activity of the Town of Merrimac is not accessible to persons with disabilities should be directed to the ADA Coordinator.

The Town of Merrimac will not place a surcharge on a particular individual with a disability or any group of individuals with disabilities to cover the cost of providing auxiliary aids/services or reasonable modifications of policy, such as retrieving items from locations that are open to the public but are not accessible to persons who use wheelchairs.



TOWN OF MERRIMAC

FINANCE DIRECTOR/TREASURER

4 School Street

Merrimac, MA 01860 Phone (978) 346-0524

E-Mail: cmcleod@townofmerrimac.com

Assistant Treasurer/Collector

Town of Merrimac seeks qualified individuals for the position of Assistant Treasurer/Collector. This position assists the Finance Director, Collector, and Accountant with proper collection of all taxes, processes payroll, prepares vendor checks for mailing, and assists customers. This is a part-time benefited position at 25 hours per week, salary range \$21.34 – \$26.68 per hour.

Successful applicant should have working knowledge of municipal procedures and Municipal, State, and Federal laws as they relate to Treasurer and Collector.

Preferred candidate will possess an Associate's Degree in Accounting, Finance or related field with minimum of 3 years' experience. Salary commensurate with experience. Submit application and resume to the Finance Director, 4 School St., Merrimac, MA 01860 by March 8, 2019. (Complete job description available at townofmerrimac.com)

Equal Opportunity/Affirmative Action Employer