



OPEN SPACE AND RECREATION PLAN

2016-2022

Town of Richmond,
Massachusetts

Prepared by:
Berkshire Regional
Planning Commission
and the
Richmond Open
Space Advisory
Committee

OPEN SPACE AND RECREATION PLAN

2016-2022

Town of Richmond,
Massachusetts



ACKNOWLEDGEMENTS

The Planning Process and Plan Creation Was Spearheaded by The Following:

Select Board

Alan Hanson
Marguerite Rawson
Roger Manzolini

Town Administrator

Matt Kerwood

Richmond Open Space Advisory Committee

Ryan Aylesworth (Chair)
John Keenum
Jeff Konowitch
Kitty Levitan
Paula Patterson
Holly Stover
Ronald Veillette

Berkshire Regional Planning Commission

Thomas Matuszko, Assistant Director
Eammon Coughlin, Planner

Thanks to Those Who Provided Review, Comments, and Assistance Along the Way!

Richmond Land Trust
Richmond Pond Association
Richmond Historical Commission
Camp Marion White Working Group

Citizens of Richmond

Survey Respondents

Public Forum Participants

TABLE OF CONTENTS

Acknowledgements 3

Section 1: Plan Summary 6

Section 2: Introduction 9

A. Statement of Purpose

B. Planning Process and Public Participation

Section 3: Community Setting 13

A. Regional Context

B. History of the Community

C. Population Characteristics

D. Growth and Development Patterns

Section 4: Environmental Inventory and Analysis 25

A. Geology, Soils, and Topography

B. Landscape Character

C. Water Resources

D. Vegetation

E. Fisheries and Wildlife

F. Scenic Resources and Unique Environments

G. Environmental Challenges

Section 5: Inventory of Lands of Conservation and Recreation Interest 46

A. Private Parcels

B. Public and Non-Profit Parcels

Section 6: Community Vision 58

A. Description of Process

B. Statement of Open Space and Recreation Goals

Section 7: Analysis of Needs..... 62

A. Summary of Resource Protection Needs

B. Summary of Community’s Needs

C. Management Needs, Potential Change of Use

Section 8: Goals and Objectives 68

Section 9: 7-Year Action Plan 70



Section 10: Public Comments 78

Section 11: References 92

Appendices

- A: Maps
- B: Vernal Pool and Conservation Parcel Data
- C: Americans with Disabilities Act (ADA) Self Evaluation
- D: Public Survey Results
- E: Potential Walking Loop Maps
- F: BioMap2 Reports

SECTION 1: PLAN SUMMARY

The 2016 Richmond Open Space and Recreation Plan (OSRP) was developed to comprehensively examine the town's open space and recreation needs and identify goals and objectives related to these topics to guide future decision making and investment.

In addition to a need for holistic and town wide open space and recreation planning within Richmond, this OSRP was spurred by the decision of the Girl Scouts of Central and Western Massachusetts to sell Camp Marion White, a summer camp property located along the eastern shore of Richmond Pond. Both town officials and community organizations including the Richmond Land Trust and Richmond Pond Association view the Camp Marion White property as a valuable recreation and open space asset that should be publicly accessible for all to enjoy.

As of the time of this writing, the town is examining possible ways to purchase or preserve the property. However, the camp has not yet been officially listed for sale. This plan lists the purchase or preservation of Camp Marion White as a top priority for the town. The seven-year action plan (Section 9) identifies a number of action items related to Camp Marion White and its possible development as a town recreation area.

Among the other highlights of the plan are a commitment by the town to protect its water and natural resources as well as sensitive environments and wildlife habitats. The plan also lays out several possible actions for the town to utilize and promote roadways as important recreation areas. Moreover, the plan makes recommendations for outreach to landowners to pursue greater protection of natural resources and expand recreation opportunities within the town.



RICHMOND OPEN SPACE AND RECREATION PLAN AT A GLANCE

Vision

The Town of Richmond is a rural, tranquil, and family-friendly hamlet in the Central Berkshire Region of Massachusetts that carefully stewards its treasured open spaces and maintains rich cultural, recreational, and scenic resources that collectively foster a strong sense of place and community vitality that benefits its residents and visitors.

Goals

1. Water resources in Richmond are protected.
2. Natural resources in Richmond are protected.
3. Residents and visitors are aware of Richmond's open space and cultural resources and recreational opportunities.
4. The town's recreation opportunities meet community needs.
5. Funding for conservation and recreation projects meets community needs.
6. Ensure Implementation of the Richmond Open Space and Recreation Plan.



Overall, this Open Space and Recreation Plan helps to answer three questions related to open space and recreation within the town:

1. What do we have?
2. What do we want?
3. How do we get there?

What do we have?

Section 3: Community Setting

Richmond is a primarily residential community located within a valley between the Taconic Mountains and the Yokun Ridge in the central Berkshire region of Massachusetts. Richmond's population is projected to decline by about 300 residents over the next 15 years. Moreover, the population of Richmond is growing older. As of 2013, Richmond was the 6th oldest community in Berkshire County based on the median age (54.2) of its residents. While in the past the pace of development was rapid, it has slowed in recent years.

Section 4: Environmental Inventory and Analysis

The town has an abundance of natural resources including extensive forest, wetlands, and vernal pool locations. Richmond's location with the Western New England Marble Valleys Ecoregion has produced some unique environments due to its calcium rich bedrock. These unique environments include the town's priority natural communities, which may be home to rare and endangered species.

Beyond the town's natural resources, there are many cultural resources including historic buildings and cemeteries, unique geological features such as the Richmond Boulder Train, and local landmarks like Shark Rock.

Section 5: Inventory of Lands of Conservation and Recreation Interest

Land in Richmond is protected in a variety of ways. The town has two state-owned Natural Heritage Areas (NHAs) and a small section of State Forest which is located along Dean Hill Road. Some residents have also chosen to protect their properties with conservation restrictions, and several land trusts own land within the town. Additionally, many Richmond landowners have chosen to enroll in Chapter 61, a state program that reduces property taxes in exchange for land conservation through forestry, agriculture or recreation.

Moreover, the town has many existing recreation opportunities, including hiking trails on the Yokun Ridge, water-based recreation on Richmond Pond, and cross-country skiing at Hilltop Orchards to name a few places.

What do we want?

Section 6: Community Vision

This section details the components of the public process that were used to draft the OSRP and states the town's vision for Open Space and Recreation. Section six also broadly defines the six overarching goals of the plan derived from the public process:

1. Water resources in Richmond are protected.
2. Natural resources in Richmond are protected.
3. Residents and visitors are aware of Richmond's open space and cultural resources and recreational opportunities.
4. The town's recreation opportunities meet community needs.
5. Funding for conservation and recreation projects meets community needs.
6. Ensure Implementation of the Richmond Open Space and Recreation Plan.

Section 7: Analysis of Needs

Section 7 provides an analysis of the town's natural resource, recreation, and management needs including the need to protect the town's water resources and the ongoing management of Richmond Pond. Moreover, it makes recommendations for recreation including the possible purchase of Camp Marion White by the town, and the need to promote the town's existing recreation areas.

Section 8: Goals and Objectives

This section reiterates the goals defined in Section 6 and provides more detailed objectives that will be completed to achieve those goals. An example of this is promoting the town's recreation areas and historic resources through the town website as a way to increase awareness of open space and cultural opportunities (Goal 3).

How do we get there?

Section 9: 7-Year Action Plan

This section outlines the specific actions that will need to be addressed to meet each goal and associated objective. The action plan suggests leadership roles that town departments, boards and committees, and other local groups can take to help complete each action and provides a timetable for completion of each action.



SECTION 2: INTRODUCTION

2A STATEMENT OF PURPOSE

This Open Space and Recreation Plan (OSRP) is the Town of Richmond's blueprint for implementing its vision for open space and recreation. The 7-year action plan (found in Section 9), provides a framework and timetable for implementing the Town of Richmond's open space and recreation goals and objectives. This OSRP is the Town of Richmond's first, and will help to fulfill a need for long range comprehensive planning within the town. Open space and recreation are two important components of the town that impact not only town character, but also quality of life, health, and the well-being of residents and visitors.

In late 2014, the Berkshire Regional Planning Commission (BRPC) was approached by the Town of Richmond regarding development of its first OSRP. Development of this OSRP was spurred by concerns about the sale of Camp Marion White on Richmond Pond by the Girl Scouts of Central & Western Massachusetts. Seeing the potential of this property for both recreation and conservation, and with the desire to have this piece of Richmond remain as protected open space, a working group was formed to examine possible purchase and conservation of Camp Marion White for public access and benefit.

The Camp Marion White Working Group (CMWWG) consisted of officials from Richmond and Pittsfield town government, the Berkshire Natural Resources Council (BNRC), and local conservation organizations including the Richmond Land Trust (RLT), the Richmond Pond Association (RPA), and Massachusetts Audubon. This working group sought to develop a plan for the purchase of the property as a local conservation and recreation asset. All parties realized that without an approved Open Space and Recreation Plan, access to state funds to help



INTRODUCTION AT A GLANCE

Richmond Open Space Advisory Committee (OSAC) Members

Ryan Aylesworth—Committee Chair and Richmond Conservation Commission Agent, Camp Marion White Working Group

John Keenum—Richmond Land Trust

Jeff Konowitch—Chair of Richmond Recreation Committee

Kitty Levitan—Vice President Richmond Pond Association

Paula Patterson—Richmond Planning Board, Richmond Long Range Planning Committee, Richmond delegate to BRPC

Holly Stover—Richmond Pond Association, Former Chair of Richmond Conservation Commission, Camp Marion White Working Group

Ronald Veillette—Richmond Conservation Commission

facilitate the conservation of Camp Marion White would be limited. Moreover, the OSRP process would allow the town to comprehensively examine its conservation and recreation assets and create a long term plan for implementation of goals and objectives to positively impact the entire town, not only Camp Marion White.

In early 2015, Richmond proposed the formation of an Open Space Advisory Committee (OSAC) that would help guide development of the town's Open Space and Recreation Plan in partnership with the Berkshire Regional Planning Commission (BRPC) who would help to facilitate public meetings and draft the OSRP. The OSAC is comprised of members of the Camp Marion White Working Group, town staff, board members, and RLT and RPA members. While the work of the CMWWG was narrowly focused on the town's acquisition or preservation of this property, the Richmond OSAC was tasked with a broader, more long range, and more holistic view of open space and recreation planning within the town as would be required for the OSRP.

This document is a summary of the work of the Richmond OSAC and the robust public process that guided and informed the development of the OSRP. This OSRP evaluates the town's existing community, natural and recreation resources, provides analysis and recommendations and lays out specific goals, objectives and actions that the town can implement and work towards. At its most basic, this document is a resource that summarizes and catalogues the town's open space and recreation assets. However, it is more importantly intended for use as a guiding document to inform decision making and investment by the town regarding future open space and recreation projects.

The OSRP and Public Health

BRPC has recently worked on several projects to integrate aspects of public health into the municipal planning process. Given that the

environment we live in plays a greater role in determining our health than individual genetic predispositions, open space and recreation opportunities have a potentially huge impact on public health. Moreover, there is increasing evidence that in addition to physical health, natural areas and open space can impact mental health by lowering levels of stress and anxiety (Coleman 2015).

Public health is a concern in Richmond due to the town's changing demographics (for more information please refer to Section 3: Community Setting). As of the 2009-2013 U.S. Census American Community Survey, Richmond ranked 6th out of the 32 municipalities in Berkshire County for highest median age of its year-round residents (54.2 years of age). The ability for Richmond residents, particularly those who are older or disabled, to access areas for recreation not only affects these resident's quality of life, but health and longevity as well.

This plan acknowledges that access to open space and recreation are integral to the physical and mental health of Richmond residents. These areas do not have to be gymnasiums or fitness centers. Elements as simple as the town's unpaved roadways, which are well used by walkers and runners, create a space for exercise and relaxation. Richmond's recreation areas are components of a public health infrastructure that can help to promote healthy and active lifestyles for both residents and visitors.

The OSRP and the Richmond Economy

The Town of Richmond, like much of the Berkshires, has a economy that benefits from tourism, as well as seasonal influxes of temporary residents and second homeowners. Regionally, the Berkshires is known for its abundant recreation opportunities as well as cultural activities. The Town of Richmond acknowledges that careful management and sound investment in its open space, recreation, and cultural



amenities could help to create a draw for seasonal residents and tourists, in addition to the quality of life and health benefits enjoyed by its year-round residents. In this way, the OSRP could be an important tool for economic development.

Grant Eligibility and Financial Purposes of this Plan

This OSRP, once fully adopted by the town and approved by the Commonwealth of Massachusetts, will make the Town of Richmond eligible to compete in three state grant programs: the LAND (Local Acquisitions for Natural Diversity), the PARC (Parkland Acquisitions and Renovations for Communities) and the Land and Water Conservation Fund (LWCF) grant programs. The LAND grant program provides communities with up to \$400,000 a year in matching grant funds for the acquisition of land for the purposes of passive recreation. The PARC grant program provides up to \$50,000 a year in matching grant funds for land acquisition or recreation improvements for towns with populations below 35,000, and is designed mostly for projects related to parks and other active recreation areas. Additionally, completion of this OSRP will make the town eligible to compete for funds through the Massachusetts Land and Water Conservation Fund (LWCF) grant program, which can provide funds for land acquisition, as well as the establishment and rehabilitation of existing recreation areas. These three grant programs could help with the implementation of the many of the recommended items found in the 7-year action plan. These three grant programs should be distinguished from other possible conservation and recreation funding mechanisms, such as the Community Preservation Act (CPA). While an exploration of the possible adoption of the CPA is a recommendation of this plan, the goals, objectives, and action items of this plan are not dependent on the CPA for funding. However, if adopted by the town, the CPA can provide both a funding pool generated by a 1-3% surcharge on

local property taxes and access to matching funds from the state of Massachusetts.

2B PLANNING PROCESS AND PUBLIC PARTICIPATION

Richmond Open Space Advisory Committee (OSAC) Members

Ryan Aylesworth—Committee Chair and Richmond Conservation Commission Agent, Camp Marion White Working Group

John Keenum—Richmond Land Trust

Jeff Konowitch—Chair of Richmond Recreation Committee

Kitty Levitan—Vice President Richmond Pond Association

Paula Patterson—Richmond Planning Board, Richmond Long Range Planning Committee, Richmond delegate to BRPC

Holly Stover—Richmond Pond Association, Former Chair of Richmond Conservation Commission, Camp Marion White Working Group

Ronald Veillette—Richmond Conservation Commission

Berkshire Regional Planning Commission (BRPC) Staff

Thomas Matuszko, Assistant Director

Eammon Coughlin, Planner

Public Participation Components of the OSRP

Public Meetings

The Richmond Open Space Advisory Committee met 6 times from March to August, 2015.

Meeting notifications were posted at the Richmond Town Hall, on the town's website (www.richmondma.org), and in the town's weekly email newsletter.

Stakeholder Interviews

To help develop the plan, BRPC conducted interviews with stakeholder groups including

members of the Richmond Pond Association and Richmond Recreation Committee. Additionally, BRPC attended several meetings of the Camp Marion White Working Group.

Public Survey

The committee created a public survey early in the development of the OSRP. The public survey was available online, through the website Survey Monkey, and as printed copies at Richmond Town Hall. Notification about the public survey was listed on the town's official website, in the Richmond Record, in flyers posted around town, and in the town's weekly email newsletter. The Richmond Land Trust and Richmond Pond Association also agreed to post notifications about the survey on their website.

The public survey was available from April 24th to June 15th, 2015. In total, there were 113 responses to the survey, with about 5% of year round residents responding. The results of the public survey are available as Appendix E of this document. The public survey was advertised in the Richmond Record (the town's locally distributed newspaper), in the town's weekly email newsletter, on the main page of the town website and in flyer postings on local bulletin boards.

OSRP Comment and Review Period

The OSRP was available in hardcopy format at Town Hall and online through the town website from late August until the September 17th, 2015 public forum. Reviewers were asked to forward comments to BRPC or the OSAC committee chair.

Public Forums

A public forum was held on June 16, 2015 at the town hall and was attended by roughly 20 participants including town residents and other interested individuals representing local conservation organizations. The public forum presented the results of the public survey and

general information about the OSRP and its requirements to forum participants. The public forum included an open and structured discussion about the town's open space and recreation needs. The public forum was advertised in the town email newsletter, on the town website, in flyer postings on local bulletin boards, at town hall, in the community events calendar of the Berkshire Eagle newspaper, and in the Richmond Record.

A second public forum was held on September 17, 2015. This public forum involved a prioritization activity in which participants marked the goals, objectives and action items of the plan they felt were most important. Participants were also encouraged to leave comments and leave contact information for future volunteer efforts. The second public forum was advertised on the town website, in flyer postings around town, and in the Richmond Record.

SECTION 3: COMMUNITY SETTING

3A REGIONAL CONTEXT

Please refer to Map 1—Regional Context in Appendix A-Maps.

Richmond is located in Berkshire County, the western-most county of Massachusetts. The town is approximately 19 square miles in size. Richmond is bordered to the north by Pittsfield and Hancock, to the east by Lenox, and to the south by Stockbridge and West Stockbridge (See Map 1—Regional Context). To the west, Richmond is bordered by Canaan, New York. The town's eastern and western boundaries are readily distinguished in the landscape. The eastern boundary between the Towns of Lenox and Richmond is the Yokun Ridge, a well defined ridgeline that consists of West Stockbridge and Lenox Mountains. The western boundary with the state of New York is comprised of a ridgeline of the Taconic Mountain range. This western ridgeline extends north to reach Mount Greylock, the commonwealth's highest peak. Richmond is primarily a rural and residential community. Two commercial orchards (with associated retail) and a few farms are located within the town.

Richmond shares a border with Pittsfield, the county's largest city and a major regional employer. Additionally, Richmond has long been known as a summer, seasonal, and second home destination. These two factors have combined to create a primarily residential community with a higher income than the vast majority of other towns in the county.

In addition to a municipal border, Richmond and Pittsfield share Richmond Pond, a spectacular 233 acre "great pond" located in the northeast corner of the town. Approximately 1/3 of the pond lies in Pittsfield. Both Pittsfield and Richmond aid in management of the pond, including reviewing



COMMUNITY SETTING AT A GLANCE

Regional Context

Richmond is a rural Berkshire town located at the western-most edge of Massachusetts and just south of the county's largest municipality.

History of the Community

Richmond's former industry included iron production and farming. The town has also been a destination for summer and seasonal residents since the 1920's.

Population

The town's population was 1475 residents as of the 2010 census. The median age of a Richmond resident is 54.2 years old.

Growth and Development Patterns

While historic industrial uses in Richmond have all but disappeared, some agriculture remains. Today, Richmond is mostly forested, with extensive residential land use.

and approving the yearly drawdown.

Additionally, a non-profit group, the Richmond Pond Association (RPA), works to “preserve, protect, maintain, and enhance the rural, environmental, recreational, esthetic and economic values of Richmond Pond”.

The supply of easily developable and former agricultural land in the town’s central valley, as well as its scenic beauty, have made the town attractive to residential development. The majority of the town is divided into large parcels that support single family homes. While these homes help to retain some of the rural character of the town, they have made the need for open space protection more critical.

The majority of Richmond is located within the Housatonic River Watershed. A small portion of Richmond’s northwest corner is part of the Hudson River Watershed. The Housatonic Valley Association, with local offices located in Lee, is a non-profit entity working to help protect the Housatonic River as a resource. The Hudson River Watershed Alliance has similar goals, but works to achieve them for the Hudson River.

Ecologically, Richmond is located on the border of two ecoregions, the Taconic Mountains and Western New England Marble Valleys. Vegetation within the Taconic Mountains Ecoregion is generally comprised of northern hardwoods. Within the Marble Valleys Ecoregion, both northern hardwoods and coniferous forest types

are found. Additionally, the shift to a limestone-rich bedrock in the Marble Valleys allows for unique habitats such as calcareous fens and alkaline streams and lakes. This unique ecoregion supports a diversity of species not found in other parts of the state. For additional discussion of vegetation in Richmond, see Section 4: Environmental Inventory and Analysis.

3B HISTORY OF THE COMMUNITY

Richmond was originally settled as part of an area known as Mt. Ephraim and Yokuntown. The first European settlers came to the area in 1759, but were preceded by the Native American Mahican tribe, which lived in the region. Richmond was originally chartered as Richmont in 1765 and included what is now the Town of Lenox. Lenox was chartered separately in 1767 and Richmont petitioned for its name to be changed a few years later. The towns of Richmond and Lenox are said to be named for Charles Lennox, the Duke of Richmond, a British lord and ardent supporter of the American colonies in the debates in England’s parliament just prior to the American Revolution (Richmond Town Plan, 1995). Iron ore was discovered in the town early in its history, which led to the development of the Richmond Iron Works in the early 1800’s. The Iron Works was in operation until 1923. Iron from Richmond is believed to have been used in the guns of the battleship Monitor, the first ironclad warship of the United States Navy. Iron production created a number of associated industries including charcoal production, wagon construction, and blacksmithing. Today, the former iron production

Table 3.1 - Town of Richmond - Projected Year-Round Population 2010-2030

Source: Donahue Institute - UMASS Amherst, 2015

Year	2010 Census (actual)	Projected 2015	Projected 2020	Projected 2025	Projected 2030	Projected Change 2010-2030
Population	1475	1402	1308	1210	1104	-371

**Table 3.2 - Richmond Population Characteristics 2000-2013***Source: 2000 and 2010 US Census, 2005-2009, 2006-2010 and 2009-2013 US Census American Community Survey*

Year	2000	2010	2013
Total Population (Year-round residents only)	1604	1475	1489 (estimate)
Age (% of total population)			
Under 5 years	66 (4.1%)	32 (2.2%)	42 (2.8%)
5 to 9 years	86 (5.4%)	57 (3.9%)	43 (2.9%)
10 to 14 years	123 (7.7%)	86 (5.8%)	79 (5.3%)
15 to 19 years	103 (6.4%)	92(6.2%)	87 (5.8%)
20 to 24 years	45 (2.8%)	38 (2.6%)	67 (4.5%)
25 to 34 years	104 (6.5%)	83 (5.6%)	103 (6.9%)
35 to 44 years	264 (16.5%)	143 (9.7%)	91(6.1%)
45 to 54 years	308 (19.2%)	291 (19.8%)	298 (20%)
55 to 59 years	150 (9.4%)	174 (11.8%)	140 (9.4%)
60 to 64 years	103 (6.4%)	141 (9.6%)	144(9.7%)
65 to 74 years	148 (9.2%)	211 (14.3%)	230 (15.4%)
75 to 84 years	81 (5%)	102 (6.9%)	129(8.7%)
85 years and over	23 (1.4%)	25 (1.7%)	36(2.4%)
Median Age	45.3	52.4	54.2
Households	643.0	657	646
Average Household Size	2.49	2.24	2.29
Minority Population (%)	2.4	2.4	1.9
Median Household Income	\$60,917	\$87,682	\$85,588
Families below poverty level (%)	1.9	2.1	1.3
Mean travel time to work (Minutes)	—	25.4	24.2
Population Density (Residents/square mile) (Based on town area of 19.03 sq. miles)	84.28	77.5	78.24

site is known as the Richmond Furnace Historical and Archeological District. The ruins of the former industrial area are listed on the National Register of Historic Places.

Additionally, Richmond was known for the production of lime due to its ready supply of calcium-rich bedrock. Lime quarrying was historically a component of the Richmond Furnace, as lime was used as a source of flux in iron production to purify raw iron and allow it to

be more easily worked.

Additionally, a separate lime industry began in Richmond, and large lime kilns for the production of industrial and agricultural lime were constructed in town.

Sheep farming was another major component of Richmond's economy until the late 1880's. After this, dairy farming became more prominent. At this time, over 100 farms operated within the

town. The town also hosted several large orchards. In the mid-1800's, Richmond began to be a destination for summer and seasonal residents from larger cities (Gloria Morse Personal Communication 2015). Many built cottages and camps along the shores of Richmond Pond. A large General Electric (GE) manufacturing plant was located just north of Richmond in Pittsfield, which brought many families to the area. The GE plant remained in operation from the early 1900's until the 1980's.

3C POPULATION CHARACTERISTICS

Current and Projected Population

Richmond experienced population growth throughout most of the 20th century. From 1920 until 1990, Richmond grew in population. Growth between 1960 and 1970 was the greatest. During this decade, Richmond grew from 890 to 1461 residents. Growth reached a peak in 1990 at 1677 residents. Since 1990, the population in Richmond has declined. The 2010 US Census counted 1475 total residents in Richmond, a decline of 12% since 1990. As of 2014, the Town's local census counted 1465 residents in 2014, with 4 births and 17 deaths in that year (Richmond Town Report, 2014). Please note that Census figures and population projections discussed in this section refer to year-round residents only.

Population projections for the next 20 years by the Donahue Institute at UMass Amherst anticipate that the number of year-round residents will decline by 371 individuals by 2030, or around 25% (See Table 3.1). However, it is important to note that these are only estimates. Regionally, population for the whole of Berkshire County is projected to decline over the next 20 years, with population growth expected in the county's largest city (Pittsfield), as well as a handful of other rural towns.

Census data also indicates that Richmond's

population is aging. The median age of a Richmond resident has increased from 45.3 in 2000 to 54.2 in 2013. This is greater than the median age for Berkshire County (45.1) in 2013, and represents an increase of almost 9 years of age since 2000. Moreover, the percentage of residents older than 60 has increased, while the percentage of residents younger than 19 has decreased since 2000.

The Town of Richmond Long Range Planning Study notes that "the middle-age, retired and elder population of Richmond has experienced notable growth, whereas residents for family-bearing age, and school-aged children, have experienced a decline in population" (Richmond Long Range Planning Study 2012). Additionally, the study notes that "spatial location, place character and increasing housing costs make it unlikely that its population will diversify in terms of age in the next ten to fifteen years".

Population Density

As of 2013, Richmond had a population density of just over 78 residents/square mile. This is a slight decrease since 2000, when density was around 84 residents/square mile. Population and housing density is highest in the Richmond Shores neighborhood, as well as in neighborhood areas that share a common loop road, such as those located on Jolindy, Gristmill Road, or in the Whitewood subdivision.

Seasonal Residents and Second Homeowners

Richmond is home to many seasonal and summer residents. The 2010 U.S. Census notes that of 902 total housing units within Richmond, 196 are listed for "seasonal, recreational or occasional use." This amounts of 21.7% of all housing units within the town.

Income

According to the 2009-2013 US Census American



Community Survey, median household income for Richmond was estimated at \$85,588, greater than any other municipality in Berkshire County. In comparison to the larger region, median household income for Berkshire County in 2013 (including Richmond) was estimated at \$48,450 (See Table 3.2).

Employment

Richmond is located just south of the city of Pittsfield, the largest municipality in Berkshire County and a major regional employer. Some of the larger businesses in Pittsfield include Berkshire Health Systems, Berkshire Bank, General Dynamics Advanced Information Systems, Interprint, Sabic-Innovative Plastics, and Lenco Armored Vehicles. The town is also close to other employment areas, such as the towns of Lenox and Great Barrington. As mentioned previously, the town has some small retail establishments, including two commercial orchards with associated retail. Mean travel time to work for Richmond residents in 2010 was just over 25 minutes.

“Journey to work” available from the 2006-2010 U.S Census American Community Survey indicates that 39.1% of employed Richmond Residents travel to the City of Pittsfield for employment, while 15.3% remain within the town of Richmond for employment. This figure includes those that commute within the town, as well as self-employed workers and those that work from home. Another 28.6% travel to work within the municipalities of Great Barrington, Lenox, North Adams, Lee, and Dalton. The remaining 17% travel to a variety of places in Massachusetts and New York (including the upstate counties of Westchester, Albany, Columbia and Rensselaer), with some workers traveling to New Jersey and Oklahoma for employment (see Table 3.3).

Table 3.3 - Employment Destinations of Richmond Residents

Source: 2006-2010 U.S. Census ACS Journey to Work

Employment Destination	Estimated Number of Employees	Percent of Employees
Pittsfield, MA	309	39.1%
Richmond, MA	121	15.3%
Great Barrington, MA	114	14.4%
Lenox, MA	61	7.7%
North Adams, MA	18	2.3%
Lee, MA	17	2.2%
Dalton, MA	16	2.0%
Columbia County, NY	14	1.8%
Hancock, MA	11	1.4%
Williamstown, MA	10	1.3%
Rensselaer County, NY	10	1.3%
Becket, MA	9	1.1%
Springfield, MA	9	1.1%
Stockbridge, MA	8	1.0%
Lanesborough, MA	7	0.9%
Hadley, MA	5	0.6%
North Canaan, CT	4	0.5%
New Marlborough, MA	4	0.5%
West Stockbridge, MA	4	0.5%
East Longmeadow, MA	4	0.5%
Northborough, MA	4	0.5%
Westchester County, NY	4	0.5%
Waterbury, CT	3	0.4%
Ludlow, MA	3	0.4%
West Springfield, Ma	3	0.4%
Cambridge, MA	3	0.4%
Boston, MA	3	0.4%
Hudson County, NJ	3	0.4%
Albany County, NY	3	0.4%
Dutchess County, NY	3	0.4%
Oklahoma County, OK	3	0.4%
Total	790	100%

Context and Demographics of Environmental Justice Populations

Environmental justice is “based on the principle that all people have a right to be protected from environmental pollution, and to live in and enjoy a clean and healthful environment “ (Mass. Executive Office of Energy and Environmental Affairs, 2015). Conceptually, environmental justice recognizes that some of the most highly polluted and undesirable areas to live have tended to contain populations of low-income, minority, foreign-born, and non-English speaking residents. Additionally, these populations have tended to have reduced or limited access to open space. In Massachusetts, these populations have been mapped in each municipality based on census information. Because these populations have historically been underserved in terms of open space and recreation access and opportunities, they should be a crucial factor in future decision-making regarding these issues.

There are currently no environmental justice populations located within the Town of Richmond. However, there are populations located within neighboring communities. Within Lenox, there is an environmental justice population based on income. Additionally, there are two environmental justice populations in nearby Pittsfield based on income and a combination of minority population and income.

3D GROWTH AND DEVELOPMENT PATTERNS

Patterns and Trends

While still a rural town, Richmond has seen a shift away from farms and agriculture toward residential living. Former industries such as iron production have long subsided. Today, the major land uses are forest, agriculture and wetlands. Residential land is also a major use, totally almost 1000 acres in the community. Richmond’s housing stock is comprised mainly of 1-unit

Table 3.4- Public Drinking Water Wells in Richmond, MA

Source: Mass GIS Public Water Supplies 2014

Source_ID	Site Name	Type
1249008-01G	WELL 1 (View Drive Community)	GW
1249012-01G	CAMP RUSSELL	TNC
1249010-01G	BRANCH FARM CONDO ASSN	TNC
1249005-01G	CAMP MARION WHITE	TNC
1249004-02G	RICHMOND CONSOLIDATED SCHOOL	NTNC
1249006-01G	PEIRSON PLACE	TNC
1249009-01G	SOMA CATERING	TNC
1249000-01G	RICHMOND TOWN HALL	TNC
1249012-02G	CAMP RUSSELL	TNC
1249011-01G	BARTLETTS ORCHARD LLC	TNC
1249013-01G	HILLTOP ORCHARD AND FURNACE BROOK WINERY	TNC

GW = Community Groundwater Well, typically serves multiple homeowners year-round (quasi-public).
TNC = Transient Non-Community Well, serve fewer than 25 people daily, such as at a camp or restaurant.
NTNC = Non-Transient Non-community Well, regularly serves more than 25 people daily for more than 6 months of the year.

Note: Public well data is from 2014. Some business names may have changed.

homes, with less than 10% of housing available as rental units (Richmond Long Range Planning Study, 2012). Recently, the town has formed an affordable housing committee with the goal of meeting the state’s 10% percent affordable housing standard while maintaining the rural character of the town.

The housing stock reveals two distinct periods of construction. Most homes were either constructed prior to 1939 or were built during the development boom of between 1970-1989 (Richmond Long Range Planning Study, 2012).

Between 1987 and 2010, the number of home

**Table 3.5 - Land Use Change in Richmond 1971-1999***Source: Mass. GIS Land Use 1951-1999*

	1971 (acres)	1971 (% of Total Land)	1985 (acres)	1985 (% of Total Land)	1999 (acres)	1999 (% of Total Land)	% Change in acreage 1971-1999
Agriculture	2752.59	22.60%	2647.75	21.74%	2647.75	21.74%	-3.96%
Commercial	4.63	0.04%	4.63	0.04%	4.63	0.04%	-0.01%
Forest	7856.61	64.51%	7753.37	63.66%	7753.37	63.66%	-1.33%
Industrial	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00%
Institutional	4.08	0.03%	7.50	0.06%	7.50	0.06%	45.55%
Mining / Waste Disposal	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00%
Recreation	20.54	0.17%	20.54	0.17%	20.54	0.17%	0.00%
Residential	712.76	5.85%	929.68	7.63%	929.68	7.63%	23.33%
Transportation*	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00%
Vacant**	241.67	1.98%	229.42	1.88%	229.42	1.88%	-5.34%
Water	178.20	1.46%	178.20	1.46%	178.20	1.46%	0.00%
Wetland	408.40	3.35%	408.40	3.35%	408.40	3.35%	0.00%
Total	12179.49	100%	12179.49	100%	12179.49	100%	

*Transportation category includes large divided highways or areas like airports and docks. Smaller roadways have not been calculated.

**Vacant land category includes abandoned agriculture, areas like power lines, or areas of no vegetation.

sales per year decreased. The number of residential, commercial, and industrial parcels has not increased substantially in recent years. Additionally, the number of building permits issued has experienced a sharp decline. These trends indicate that overall development has slowed.

Infrastructure

Roads

Richmond is served by Route 41, a major regional north-south roadway that begins in Connecticut and terminates in Pittsfield. A short section of Route 295 extends from New York Route 295 and intersects with Route 41. This section of roadway is a major route for commuters from New York who travel from their homes to places of employment in Pittsfield.

While not a state highway, Swamp Road also runs north-south through the entire town of Richmond, east of and parallel to Route 41. Both Swamp Road and Route 41 connect to Rte. 20 in Pittsfield.

Pedestrian Facilities

There are limited pedestrian facilities in Richmond, beyond existing roadways. A short section of sidewalk exists along Route 41, and runs a few hundred yards from the U.S. Post Office south to the intersection of Lenox Road. Other pedestrian facilities are provided on existing trails in Town. These facts notwithstanding, walking was identified as one of the top recreation activities of survey respondents, with 66% reporting walking as one of the top activities they participate in. The survey and work of the Richmond OSAC also determined that many quiet and unpaved town roads are used extensively by

walkers. For additional information, please see Section 5. This led to the development of objectives and actions to support walking in Richmond, such as the creation of walking loops (see Section 9).

Bicycle Facilities

As with pedestrian facilities, there are limited bicycle facilities in Richmond beyond those provided by existing roadways. Richmond’s roads currently have no bicycle lanes, or shared lane markings; however, some bicycle warning signage exists in the town. Strava is a mobile application used by runners and cyclists that allows them to track exercise time and engage in challenges with other Strava users. Strava maintains a “heat map” which shows physical locations where the application is used (Strava 2015). The map gives a relative indication of which areas are popular for exercise and which are not, and can provide a snapshot of the places most frequented by Strava users. Based on the heat map for Richmond, Route 41, Swamp Road, and Lenox Road are the most popular areas where Strava users choose to bicycle.

Rail

A rail line owned by CSX runs north–south through Richmond. This rail line carries freight as well as Amtrak passenger trains. At the southern end of town, the line runs immediately west of Route 41, crossing beneath an overpass near the intersection of Route 41 and Lenox Road. North of this point, the rail bed travels between Route 41 and Swamp Road. Moving north, the line runs just west of the shoreline of Richmond Pond, where it crosses into Pittsfield.

Other Transportation

Richmond is not served by any local public transportation routes. The nearest bus service is located in Lenox, and a larger intermodal station

Table 3.6 - Richmond Land Use 2005		
<i>Source: Mass. GIS Land Use 2005</i>		
Land Use Category	Acres	Percent of Total Land
Agriculture	1860.92	15.29%
Commercial	6.71	0.06%
Forest	7655.63	62.89%
Industrial	2.74	0.02%
Institutional*	9.90	0.08%
Mining / Waste Disposal	0	0.00%
Recreation	55.64	0.46%
Residential	922.86	7.58%
Transportation	27.37	0.22%
Vacant**	232.26	1.91%
Water	197.58	1.62%
Wetland***	1200.80	9.86%
Total	12172.42	100%
*Institutional category Includes town owned facilities as well as cemeteries.		
**Vacant category includes abandoned agriculture, areas like powerlines and areas of no vegetation, as well as brushland and successional environments not dense enough to be classified as forest.		
***Wetland category includes both forested and non-forested wetlands.		

in Pittsfield provides both bus and train service. A large international airport is located in Albany, NY, roughly an hour away.

Drinking Water

All areas of Richmond are serviced by individual drinking water wells, with no centralized public water supply system. However, Massachusetts Geographic Information Systems (GIS) public water supply data indicates 11 public water supply wells located in Richmond. These include wells at Town Hall (which also serves the Congregational Church), the Richmond Consolidated School (the town’s Kindergarten



through eighth grade elementary and middle school), to name a few. For additional information on drinking water supply wells in the Town of Richmond, refer to Section 4C-Water Resources and Table 3.4—Public Drinking Water Wells.

Wastewater Treatment

Currently, the only areas in Richmond served by public centralized sewer are the communities along the shoreline of Richmond Pond (see Map D—Infrastructure). Camp Russell, the summer camp along the southern shore of Richmond Pond is also connected to this sewer system. However, Camp Marion White is not. The communities and neighborhoods around Richmond Pond are some of the most dense in the entire town. Sewer service connects these communities to wastewater treatment facilities in nearby Pittsfield, and was implemented to address issues related to water quality and public health. Additionally, the proximity of these areas to Richmond Pond made the need to address issues of water quality more important. While sewer in this neighborhood helps to reduce the impact of development along Richmond Pond, the remainder of the town is serviced by on-site septic systems.

Natural Gas Pipelines

Three existing natural gas pipelines traverse west to east across the Town of Richmond following easements on private land. Recently, Tennessee Gas Pipeline Company and its parent company Kinder Morgan have announced plans to add an additional natural gas pipeline through Berkshire County. Currently, plans for the pipeline bypass the town of Richmond altogether. However, previously identified routes have shown the pipeline passing along the existing pipeline right of way in Richmond and over an AT&T cable right of way over Lenox Mountain. The potential

impact to Richmond's natural resources and recreation areas is currently unknown. However, the previous pipeline route has been shown crossing through both the Fairfield Brook NHA and several privately owned parcels with conservation restrictions. These areas could be impacted by pipeline construction.

However, these plans are far from being finalized, and the final pipeline route could potentially pass through the town. This pipeline project is part of the company's Northeast Energy Direct project, which would carry gas from a hub in Wright, NY to Dracut, MA (Kinder Morgan 2015). The proposed pipeline would distribute natural gas derived from hydraulic fracturing (also known as fracking) fields in Pennsylvania to distribution centers along the coast. There has been strong opposition to the pipeline in Richmond. In July of 2014, the Town of Richmond held a special town meeting in which residents approved a non-binding resolution that called on the Select Board to oppose the project.

As of the time of this writing in August 2015, the Federal Energy Regulatory Commission (FERC) has issued a notice of intent to prepare an environmental impact statement related to the proposed pipeline project.

Long Term Development Patterns

Land use data available from the state is able to provide considerable insight into long term development patterns in Richmond. Data for Richmond is available for four years (1971, 1985, 1999 and 2005) and allows for an analysis of shifting land use patterns within the town.

However, it is important to note that there was a change in methodology in Massachusetts state land use classification between 1999 and 2005 that included the addition of automated and computerized processes previously done

manually. This makes comparison of 2005 data with 1971-1999 data statistically impossible.

Land use data reveals some significant changes in Richmond since the earliest available records of 1971 (see Table 3.5). According to state GIS data, residential land use saw the largest growth between 1971 and 1999. Residential acreage increased by 23% (219.92 acres) between 1971 and 1999.

Institutional uses also increased in Richmond (by just over 45%) between 1971 and 1999. This use includes town owned buildings and facilities, as well as schools and cemeteries. On a percentage basis, this increase is large. However, the change in actual acreage was minimal, totaling only 3.42 additional acres over the 28 year period.

The uses that declined in Richmond between 1971 and 1999 include agriculture, forest and vacant land. Vacant land includes abandoned agriculture, areas like power lines, or areas of no vegetation.

Land use data available from 2005 reveals no major differences in overall uses from the 1999 data that cannot be attributed to the change in classification methodology. As of 2005, forest is still the predominant land use, at 62.89% (7655.63 acres) of all land, while residential land uses cover 7.5% (922.86) of the town. The most notable differences between the 1999 and 2005 data are derived from the methods in which the land use data was collected and classified. A comparison between the two years shows an apparent decline of roughly 800 acres of agriculture, with a similar increase in the amount of wetland in town. This is due to the fact that in 1999, land use was determined manually from interpretation of aerial photography. In 2005, data from on the ground field measurements was

used to determine wetland extents, accounting for the apparent steep increase in their acreage (see Table 3.6).

Please note that only the portion of Richmond Pond within the town of Richmond, and other water bodies such as Crystal Lake and Bourne Pond have been assessed as the open water portion of these land use estimates. As roughly 1/3 of Richmond Pond's 233 acres is located in Pittsfield, this acreage is not counted as part of the town's total. For additional information on the Richmond's water resources, please refer to Section 4C-Water Resources.

Current development trends have been focused on large high-end homes on large parcels of land along existing road frontage. The 2003 community development plan notes that subdivision has not been a major component of development, and that the town has extensive subdivision controls within its local ordinances. As noted previously, the decline of home sales, and issued building permits, has pointed to a slow down in residential development in recent years.

While, the development of residential land within the Town of Richmond may seem insignificant, it can have profound ecological and recreational consequences. Residential development can contribute to landscape and habitat fragmentation, which breaks up contiguous habitats and limits the potential size of recreation areas. Additionally, it may affect downstream hydrology or water quality as land is made more impermeable by buildings and paved areas.

Zoning and Regulation

For a current zoning map, please refer to Map 3-Zoning in Appendix A—Maps.

The majority of Richmond is zoned for residential



use in its RA -C zoning district. This district has a minimum lot size of 2 1/2 acres and frontage of 250 feet.

A smaller portion of residential zoning (District RA -A) allows for much smaller min. lots sizes (1/4 acre) and reduced frontage of 100 feet minimum. This district is located in one area along Rte. 41 / West Stockbridge Road near the Richmond/West Stockbridge town line (See Map 3 – Zoning). Richmond also has two small areas zoned for commercial use (COMM Zoning District). The first portion is located immediately adjacent to the RA-A district described above. The second portion is located farther north along Rte. 41 / West Stockbridge Road near the intersection of Rte. 41 with Firehouse Lane. The greater density of housing and neighborhoods allowed in these areas was designed to match historical settlement patterns.

Around Richmond Pond, a Shore Residence district governs land use. This district contains a 1/4 acre minimum lot size and minimum 50 feet of road frontage. Currently, this district only extends around the Richmond Shores community. The town has been exploring other possible zoning changes around Richmond Pond, including possible recreation overlay districts around the summer camp properties (Camp Marion White, and Camp Russell). Additionally, the town has been exploring extension of the shoreline residence district, or similar zoning, to other areas around the pond, such as the Whitewood and Branch Farm communities. However, these potential changes have only been discussed preliminarily.

The town also has an extensive floodplain overlay district which helps to protect flood-prone and wetland areas within the Richmond valley. This overlay district is critical towards maintaining the

ecosystem services these wetland areas provide as well as their function as habitat for wildlife and plant species.

In addition to its zoning regulation, Richmond has several strong local controls which help to ensure environmental protection. Town bylaws have been amended to specifically include open space protection as a “purpose” of the bylaw. Moreover, the town has adopted the Scenic Mountains Act and Scenic Roads Act. The Scenic Mountains Act helps to regulate development on high elevations and steep slopes and includes provisions to limit clear-cutting to areas of a 1/4 acre or less without plans for replanting. The act is intended to limit soil erosion and runoff which can help to improve water quality. Additionally, the act is intended to help preserve the town’s natural scenic qualities, which are in part created by the ridgelines which form the Richmond valley. Similarly, the Scenic Roads Act helps to limit tree and stone wall removal in the right-of-way along designated roads within the Town of Richmond and is an important tool in maintaining the town’s scenic and rural character.

The town also has a strong local wetland bylaw which includes a 200 foot buffer zone around the town’s portion of Richmond Pond, as well as expanded wetland protections that include the town’s vernal pools. Under state law, vernal pools are only protected by the Wetland Protection Act (WPA) if they are certified and located within the 100’ buffer around other jurisdictional wetland areas. These bylaws help to maintain the rural and scenic character of the town, reduce the ecological impacts of development, and preserve natural resources and sensitive ecologies.

Remaining Buildable Land

For a map of remaining buildable land, please refer to Map E-Buildable Land in Appendix A—

Maps.

An analysis of remaining buildable land within the Town of Richmond is a tool for estimating the future development capacity of the town. However, it does not represent a complete “build out” scenario, and only provides an acreage amount available for potential future development. It does not examine remaining buildable road frontage which would be needed to access this undeveloped acreage, or account for new road construction, or extensive subdivision that would be needed for development within these areas. Moreover, it does not account for the town’s existing zoning regulations, which would limit additional development, particularly on smaller lots.

This analysis is performed by taking the total acreage of the town and subtracting areas that have already been developed, permanently protected state and other conservation lands, wetlands (100 foot buffer around all wetland areas), and river protection areas (200 foot resource area around perennial streams). Additionally, other development constraints are accounted for in the analysis, including include areas in the floodplain, slopes between 15% and 25%, and areas protected by the Berkshire Scenic Mountain Act (includes slopes greater than 15% in areas between 1300’ and 1400’ in elevation and all areas above 1400’ in elevation).

Based on this analysis, 4,103 acres (33.6% of all land) of buildable land remain within the town. Another 1,900 acres (15.6% of all land) remains on land that is partially constrained for development.

SECTION 4: ENVIRONMENTAL INVENTORY AND ANALYSIS

4A GEOLOGY, SOILS AND TOPOGRAPHY

For a map of soil conditions, please refer to Map 4—Soils and Geologic Features in Appendix A—Maps.

The town of Richmond is located within a unique regional topography. The majority of the town is located within a valley bordered to the east by Lenox Mountain and to the west by the Taconic Range. The steep hills at the east and west edges of town contain excessively drained soils (See Map 4—Soils and Geologic Features), while the valleys contain a range of both poorly drained and prime agricultural soils. Prime agricultural soils are those with physical and chemical characteristics best suited to growing agricultural crops. These soils are able to produce higher crop yields with fewer additions of fertilizer and other soil amendments. Prime agricultural soils in Richmond total 1,659 acres. Predominant soils are Amenia silt loam, Stockbridge gravelly loam and Kendaia silt loam, with smaller areas of Hoosic, Farmington, Taconic, Lyman-Tunbridge and Winooski associations among others.

Additionally, the topography has created a network of wetlands and water resources at the lowest points of the central valley, with Richmond Pond located at the northern end of town. Moreover, Richmond is located at the edge of two ecoregions. The Taconic mountains at the west of town are located in the Taconic Mountain ecoregion, while the eastern portion of the town is located within the Western New England Marble Valleys ecoregion. The BioMap2 report from the state's Natural Heritage and Endangered Species Program notes that the New England Marble Valleys are "highly regarded for their native biodiversity". The calcium rich soils may also help to negate some of the harmful effects of acid rain dep-



ENVIRONMENTAL INVENTORY AND ANALYSIS AT A GLANCE

Ecoregions

Richmond is part of the Western New England Marble Valleys Ecoregion. The calcium containing bedrock of this ecoregion creates unique environments and supports rare plant and animal populations.

Priority Natural Communities

Richmond is home to several rare priority natural communities listed as "imperiled" by the state. These include the Black Ash – Red Maple– Tamarack Calcareous Seepage Swamp, Calcareous Sloping Fen, Calcareous Seepage Marsh, and Calcareous Rocky Summit.

Vernal Pools

Richmond is home to 11 certified and 28 potential vernal pool locations.

Unique Features

Richmond has many unique features including historic buildings, scenic views, and the Richmond Boulder Train, a remnant of glacial activity.

osition within the town.

The steep slopes at the edges of the Richmond valley, as well as the extensive wetland areas towards the valley center have constrained development within Richmond. Additionally, undeveloped ridgelines have helped to provide recreation opportunities for Richmond residents and others. Hiking trails extend across the Yokun Ridge and Lenox Mountain along the eastern side of town and through the ridgeline of the Taconic range along the western side.

As mentioned previously, Richmond Pond attracted seasonal housing development beginning in the 1920's. The neighborhoods surrounding it remain the densest in town. However, the ample supply of former agricultural land in the valley has made residential development easy and has limited the amount of land available for conservation and recreation.

4B LANDSCAPE CHARACTER

Richmond's town character is created by the surrounding landscape and local development patterns. As stated previously, the town is located within a valley bordered by the Taconic Range and Lenox Mountain. The average elevation of the valley areas are around 1050 feet above sea level, while peaks average 1400 feet (Richmond Town Plan, 1995). The highest points in town are Perry's Peak (2070 feet) located in the northwest corner of the town and portions of Lenox Mountain and the Yokun Seat, which straddle the border between Lenox and Richmond.

These mountain borders which frame the town also create opportunity for recreation. There are well established hiking trails, particularly around Lenox Mountain and the Yokun Seat, as well as along Perry's Peak. They also allow for beautiful views of the valley and Richmond Pond. Within the valley, two wetland areas have been designated as state protected Natural Heritage Areas.

Table 4.1 - Public Drinking Water Wells in Richmond, MA		
Source: Mass GIS Public Water Supplies 2014		
Source_ID	Site Name	Type
1249008-01G	WELL 1 (View Drive Community)	GW
1249012-01G	CAMP RUSSELL	TNC
1249010-01G	BRANCH FARM CONDO ASSN	TNC
1249005-01G	CAMP MARION WHITE	TNC
1249004-02G	RICHMOND CONSOLIDATED SCHOOL	NTNC
1249006-01G	PEIRSON PLACE	TNC
1249009-01G	SOMA CATERING	TNC
1249000-01G	RICHMOND TOWN HALL	TNC
1249012-02G	CAMP RUSSELL	TNC
1249011-01G	BARTLETTS ORCHARD LLC	TNC
1249013-01G	HILLTOP ORCHARD AND FURNACE BROOK WINERY	TNC
GW = Community Groundwater Well, serves multiple homeowners year-round (quasi-public). TNC = Transient Non-Community Well, serve fewer than 25 people daily, such as at a camp or restaurant. NTNC = Non-Transient Non-community Well, regularly serves more than 25 people daily for more than 6 months of the year. Note: Public well data is from 2014. Some business names may have changed.		

Moreover, the town's historic buildings and residential areas contribute towards the rural and small town feel that residents and visitors enjoy.

Additionally, much of the town is located within a Department of Conservation and Recreation designated "Scenic Landscape" (See Map 5-Unique Features), which attests to its rural and scenic beauty.

4C WATER RESOURCES

For mapping related to water resources in Richmond, please refer to Map 6– Water Resources).

The Clean Water Act of 1972 requires that individual states assess the quality of their water bodies



Table 4.2- Richmond Water Resources

Source: Mass GIS MassDEP List of Integrated Waters

Water Bodies		Impaired Status and Cause
Name	Size (Acres)	
Sherrill's Pond (also known as Bourne Pond or Miller's Pond)	5.98	No
Crystal Lake (Cheever Ore Bed)	2.22	No
Fairfield Pond	2.47	No
Furnace Road Pond (Cone Ore Bed)	6.8	No
Richmond Pond	233.38	Yes, Eurasian Water Milfoil (<i>Myriophyllum spicatum</i>)
Streams		Impaired Status and Cause
Name	Length (Miles)	
Scace Brook	2.33	No
Mt Lebanon Brook	0.26	No
Inlet to Richmond Pond from south	4.56	No
Tracy Brook	1.05	No
Sleepy Hollow Brook	2.68	No
Fairfield Brook	2.38	No
Cone Brook	3.41	No
Outlet of Fairfield Pond	0.91	No
Lenox Mountain Brook	1.73	No
Furnace Brook	10.76	No, Listed as a Category 2 water (Attaining some uses, other uses not assessed). Fish, other Aquatic Life and Wildlife were assessed. Recreational uses not assessed.
Unnamed (close to Dean Hill Road)	1.11	No

and work to restore waters to be fishable and swimmable. Water bodies that are considered impaired by pollution are listed in each state's 303(D) list. The 303(D) list for Massachusetts was last updated in 2012. Nominations for additional listings of new impaired waters are awaiting state approval.

Richmond Pond is listed as being impaired due to the presence of non-native macrophytes, specifically Eurasian Watermilfoil (*Myriophyllum spicatum*) (See Table 4.2—Richmond Water Resources), and is shown as the town's only impaired water body. Brittle Naidad (*Najas minor*), and Curly-leaf Pondweed (*Potamogeton crispus*)

have also been noted as potentially harmful invasive species within the pond (Mass EOEEA, 2002). These invasive species can crowd out native aquatic plant species and create a nuisance for boaters and anglers. It should also be noted that Richmond Pond does not have Zebra Mussels (*Dreissena polymorpha*), which have negatively impacted other local water bodies. The town funds a boat ramp monitor program to help keep Zebra Mussels and other invasive species out of the pond.

Watersheds

Table 4.3 - Richmond Wetlands By Type		
Source: Mass. GIS Wetlands		
Wetland Type	Acres	% of all Wetlands
Bog	5.73	0.4%
Deep Marsh	67.41	4.8%
Open Water	197.14	14.1%
Shallow Marsh		
Meadow or Fen	119.63	8.6%
Shrub Swamp	299.80	21.5%
Wooded Swamp		
Coniferous	98.39	7.0%
Wooded Swamp		
Deciduous	466.51	33.4%
Wooded Swamp		
Mixed Trees	142.63	10.2%
Total	1397.24	100%

The town of Richmond is located in two watersheds, the Housatonic and the Hudson, though the majority of the town falls within the Housatonic River Watershed. Only a small portion of the northwest corner of the town is located within the Hudson River Watershed. Both of these rivers have active watershed organizations working to protect them. The Housatonic River is part of ongoing remediation efforts to remove contamination by polychlorinated biphenyls (PCBs) from the former General Electric (GE) Company plant in Pittsfield, MA. Richmond is located at the headwaters of the Williams River, which joins with the Housatonic River in Great Barrington. As such, the majority of the PCB contamination in the river is found within sections of the Housatonic in the towns of Pittsfield, Lenox, Lee, and Great Barrington. While much of the contamination adjacent to the GE plant and in non-river areas has been removed or is part of ongoing cleanup, extensive contamination within the Housatonic River still remains. This cleanup program is still being defined, and is known as the “Rest of River”.

Surface Water

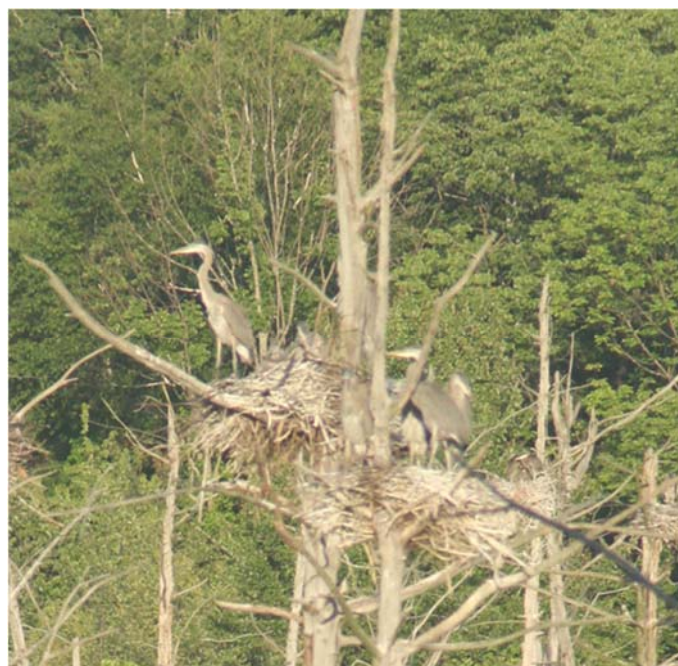


Figure 4.1—A wetland area just east of Richmond Pond is home to a Great Blue Heron (*Ardea herodias*) Rookery. Photograph credit Ken Kelly.

Stream and Brooks

Richmond has three main waterways; Lenox Mountain Brook, Furnace Brook, and Cone Brook. These waterways merge south of Richmond in Stockbridge to form the Williams River, which connects to the Housatonic River in Great Barrington.

Furnace Brook is noted on the state’s 303(D) list as being a category 2 waterway (see Table 4.2). This designation means that certain uses were assessed for this waterway, while others were not. In the case of Furnace Brook, aquatic and wildlife were assessed and recreational uses were not.

Richmond Pond

Richmond pond is the town’s largest body of water and a state listed raised “Great Pond”. Great Ponds are a state water body designation related to Massachusetts General Law Chapter 91 “The Massachusetts Public Waterfront Act”. A Great Pond is defined as “any pond or lake that contained more than 10 acres in its natural

state” (Mass DEP, 2015). Ponds which at one point in time were larger than 10 acres, but are now smaller are still considered to be Great Ponds. The public waterfront act provides public access to Great Ponds.

Moreover, Richmond residents noted that historically, a walking trail used by Native Americans ran along the circumference of the Richmond Pond shoreline. During OSAC meetings, it was noted that walking the length of this historic path was now difficult or impossible due to development along the shoreline, although large sections of the original trail still remain and are passable. The OSAC determined to make reestablishment of this historic trail an action item of this plan by working with private landowners to allow for public access. For more goals and objectives specific to Richmond Pond, please refer to Section 9—7-Year Action Plan.

Richmond pond is around 233 acres in size, with approximately 2/3 located in the Town of Richmond and 1/3 in Pittsfield. Richmond Pond flows north into the southwest branch of the Housatonic River, located just north of Richmond within the City of Pittsfield. The shoreline of Richmond Pond is listed as a NHESP priority habitat for rare species as well as BioMap2 core habitat (see Map F—Fisheries, Vegetation, and Wildlife). Richmond Pond is known to contain the Bridle Shiner (*Notropis bifrenatus*) (See Figure 4.2). This small fish is listed as a species of special concern in Massachusetts. The Bridle Shiner is known to live in clear water bodies and is a visual predator, relying on sight to hunt for food like insects and other invertebrates. This fish also requires both open water and aquatic vegetation to provide its foraging and breeding habitat. Thus, changes in water quality, particularly turbidity and invasive aquatic vegetation, can have profound impacts on this species (NHESP Bridle Shiner Fact Sheet 2008).

The Pond’s location within two municipalities



Figure 4.2—The Bridle Shiner (Notropis bifrenatus) is a state listed special concern species found in Richmond Pond.

makes coordination on management issues more challenging. However, a local non-profit group, The Richmond Pond Association (RPA), helps to alleviate some of these difficulties by acting as the primary advocate for issues regarding the pond and the communities that surround it.

The RPA was formed in 2000 and is comprised of members from the five communities around the pond, including Whitewood, Branch Farm, South Pond Farm (located in Pittsfield), Richmond Shores, and the independent cottages located between these areas. Members also include representatives from the Town of Richmond and City of Pittsfield. Additionally, there are representatives from the three summer camps that surround the pond, Camp Russell (owned by the Boys’ and Girls Club of the Berkshires), Lakeside Christian Camp (located in Pittsfield) and Camp Marion White, a summer camp currently owned by the Girl Scouts of Central and Western Massachusetts. Camp Marion White has not been actively used by the Girl Scouts since 2010, and in late 2014, the Girl

Scouts voted to divest the property. This decision was one of the primary reasons for the Town of Richmond's decision to pursue creation of this Open Space and Recreation Plan (See Section 5B for a more in-depth discussion of Camp Marion White).

A dam was constructed at the pond's northern outlet in 1865. This dam is currently owned by Lakeside Christian Camp on its property in Pittsfield. Construction of the dam increased Richmond Pond's size by roughly 90 acres and created much of the southern and western shoreline seen today. Without the dam, the shoreline near the Richmond Shores community, as well as at the Richmond Town Beach and state boat launch would disappear, eliminating water access from those areas.

The dam is used yearly to control water levels within the pond. In the Fall, the water level is decreased by about two feet as part of an annual drawdown. The drawdown is thought to help control the spread of invasive aquatic plant species such as Eurasian Milfoil (*Myriophyllum spicatum*) near the pond's shoreline by exposing these species to freezing conditions during the winter. Moreover, the yearly drawdown is thought to help reduce flooding along the west branch of the Housatonic River in Pittsfield during the spring (Baystate Environmental Consultants, 1990). The additional water capacity created by the drawdown allows the pond to store spring runoff that would otherwise contribute to flooding in West Pittsfield. Permission for the drawdown of Richmond Pond is granted under an order of conditions approved by the Conservation Commissions of both Richmond and Pittsfield.

The RPA works to help address management issues that come up around the pond in coordination with the Town of Richmond and the City of Pittsfield. Additionally, it is able to help address issues that the municipalities are fiscally unable

to, such as dam maintenance. As the dam is located on property owned by a religious organization, Richmond and Pittsfield cannot contribute money directly to Lakeside Christian Camp to aid in management of the dam. The RPA earmarks some of its yearly funds, collected as part of membership dues, to assist Lakeside Christian Camp with dam maintenance.

The pond association has also taken the lead in examining and studying Richmond Pond to promote better management. Recently the RPA funded a bathymetry study for the pond and is working to update a management plan for the water body. Moreover, it works as an advocate for the communities surrounding the pond and has recently worked to address issues related to light and noise pollution around the pond.

The Town of Richmond funds monitors who work to check boats at the public boat ramp for invasive species and direct boat owners to a washing station. The town has also funded a 5-year aquatic management plan for the pond, with a focus on managing and eradicating the invasive Eurasian Milfoil and Curly-Leaf Pondweed (*Potamogeton crispus*) found within the pond. Implementation of the plan began in 2013 with application of aquatic herbicide to 74 acres of Eurasian Milfoil around the pond.

Aquifer Recharge Areas

Public drinking water supply data shows 11 public water supply wells in the Town of Richmond, including locations at the Richmond Consolidated School, Town Hall, and Camp Russell among others. These wells fall into three categories including Community Groundwater wells (GW), Transient Non-Community water systems (TNC), and Non-Transient Non-Community (NTNC) water systems. TNC systems serve fewer than 25 people daily and are generally located at sites such as restaurants and campgrounds. The town's only NTNC system is located at the Richmond Consolidated School



(see Table 5.1—Public Drinking Water Wells in Richmond, MA). NTNC systems serve 25 or more people daily for 6 months or more out of the year. The well serving Richmond Town Hall is also classified as a TNC water system.

State GIS data indicate interim wellhead protection areas (IWPA) around 10 of the 11 public water supply wells located in town. The largest protection area is located around the well that serves the Richmond Consolidated School (See Map 6—Water Resources).

In the past, there have been challenges with salt (Sodium Chloride or NaCl) contamination in private wells found along Route 41 (Gloria Morse Personal Communication, 2015).

Flood Hazard Areas

Flooding occurs when the volume of water within a given stream or river exceeds the channel's capacity. The flood plain is considered the land area adjacent to a water body that is subject to recurring inundation. Flooding often occurs in the spring, due to snow melt and during large storm events. Floods often occur at predictable intervals.

The Federal Emergency Management Agency (FEMA) has identified many floodplain areas that extend throughout the central valley of Richmond. A large area of the 100-year floodplain (and wetland area) is located immediately south of Richmond Pond. The majority of floodplain areas are located between Route 41 and Swamp Road (the valley center), with some located north and south of Route 41, just west of Sherill's and Furnace Road Ponds (See Map 4—Water Resources).

An analysis of the Flood Insurance Rate Maps (FIRM) indicates that there is a total of 859.5 acres of 100-year floodplain within the town. This amounts to 7.1% of the total town. Based on additional analysis, 10.1 acres (1.2%) of the flood-

plain are developed. The town currently has a floodplain bylaw and overlay district as mentioned in Section 3—Community Setting. Currently, there are 19 residential buildings located within the floodplain.

Wetlands

For a map of wetlands, please refer to Map H—Wetlands in Appendix A—Maps.

The Richmond valley has an abundant supply of wetlands, mostly in the town's central valley. In total, wetland areas cover 1,397 acres of Richmond, or around 10% of all land within the town (including areas of open water) (see Table 4.3—Richmond Wetlands by Type). Additionally, three of the four rare priority natural communities found in Richmond are wetlands (See Section 4D for further discussion).

Wetlands perform important functions for both humans and wildlife. Wetlands are the most productive ecosystems on the planet when measured by the amount of biomass or living biological tissue they help to produce. Wetlands serve as habitat for a wide variety of plant and animal species and often function as critical nursery and breeding areas. Wetlands also provide functions for humans. The benefits to humans provided by wetlands and other natural environments are sometimes referred to as "ecosystem services." Valuable ecosystem services provided by wetlands include water purification, flood storage and control, and shoreline stabilization. Water speed and flow is greatly reduced in a wetland compared to the open water of a stream or river. This causes suspended sediments to fall out of the water column, thus enhancing downstream water quality. Wetlands also help to remove harmful pollutants as well as nutrient pollution from water resources. During flooding, wetlands act as a "sponge" that helps to absorb excess flood water. Wetlands also help to reduce erosion by acting as a buffer that helps to protect the shorelines of rivers, lakes and

other bodies of water.

Eight types of wetland exist in Richmond. Data included in Table 4.3 of this section are derived from the interpretation of aerial photography which is then field checked by the Massachusetts Department of Environmental Protection (DEP). These data come from the most recent wetlands assessment which was performed in 2009.

The greatest wetland acreage is within wooded deciduous swamps, which total 466.51 acres within the town and comprise 33.4% of the town's total wetland acreage. The least common wetland type in Richmond are bogs, which cover just 5.73 acres, or .4% of all wetlands within the town.

Bogs are a type of wetland characterized by acidic waters, peat deposits and sphagnum moss. Due to the extreme acidic nature of bog environments, bogs are often home to many unique plant species such as pitcher plants (*Sarracenia purpurea*) which obtain nutrients from insects that become trapped inside them.

4D VEGETATION

As stated previously, Richmond lies on the border between two ecoregions, the Taconic and the Western New England Marble Valleys. The Marble Valleys especially support a range of biodiversity not found in other areas of the state. This is primarily due to the calcium-rich bedrock which creates alkaline environments that enable a rich variety of plant life. Some of these alkaline environments include the four priority natural communities which are found within the town.

Forests

According to the 2005 land use inventory for Richmond, forests cover 7655 acres, or 62.89%, of all land within the town. According to the Massachusetts Natural Heritage and Endangered Species Program (NHESP), forests in Richmond are primarily the Northern Hardwoods type which

consists of Sugar Maple (*Acer saccharum*), Beech (*Fagus grandifolia*), and Yellow Birch (*Betula alleghaniensis*), in mixed proportions, along with some Hemlock (*Tsuga Canadensis*) and White Pine (*Pinus strobus*). Additionally, as Richmond is on the border of two ecoregions, some of the transitional hardwood species may be encountered, which includes species such as Red Oak (*Quercus rubra*) and Black Birch (*Betula lenta*). Historically, American Chestnut (*Castanea dentata*) was likely a major component of Richmond's forests before it was eliminated by Chestnut blight. Chestnut timbers have been found as beams in some of the older homes in Richmond.

Typical Plant Species Found in Richmond (as noted in the 1995 Richmond Town Plan)

Typical Upland Plant Species

Woody:

white pine, shad bush, black locust, red maple, sugar maple, striped maple, flowering dogwood, black birch, wintergreen, chestnut, white oak, black oak, red oak, red pine, black cherry, spruce, hemlock, balsam fir, basswood, pink azalea, mountain laurel, beech, blueberries, white ash, blackberry elder

Herbaceous:

ground cedar, shining clubmoss, common woodfern, wild ginger, goldthread, wild geranium, twisted stalk, lichens, tree clubmoss, Christmas fern, jack-in-the-pulpit, frillity, wild oats, violets, mosses

Typical Forested Wetland Plants

larch, sycamore, red maple, ladyfern, marsh marigold, white cedar, silver maple, swamp white oak, skunk cabbage

Typical Wetland Plants:

Algae, cattails, burr reed, rice cutgrass, waterlilies, watermilfoils, grasses, reeds, cardinal flower, horsetails, sedges, pondweeds, bulrushes, coontail, blue flag, marsh fern, skunk cabbage, purple loosestrife (invasive)



Table 4.4 - Threatened, Endangered and Special Concern Species Sighted in Richmond, MA

Source: Mass DFG -Town Species Viewer, 2015

Taxonomic Group	Scientific Name	Common Name	Status	Last Sighting
Amphibian	Ambystoma jeffersonianum	Jefferson Salamander	SC	2009
Bird	Cistothorus platensis	Sedge Wren	E	1988
Bird	Gallinula chloropus	Common Moorhen	SC	1991
Bird	Botaurus lentiginosus	American Bittern	E	2008
Butterfly/Moth	Euphyes dion	Dion Skipper	T	2008
Fish	Notropis bifrenatus	Bridle Shiner	SC	2012
Reptile	Glyptemys insculpta	Wood Turtle	SC	2010
Vascular Plant	Poa saltuensis ssp. languida	Drooping Speargrass	E	1901
Vascular Plant	Carex hitchcockiana	Hitchcock's Sedge	SC	1988
Vascular Plant	Carex tetanica	Fen Sedge	SC	1988
Vascular Plant	Eleocharis intermedia	Intermediate Spike-sedge	T	1988
Vascular Plant	Eragrostis frankii	Frank's Lovegrass	SC	1990
Vascular Plant	Carex alopecoidea	Foxtail Sedge	T	1997
Vascular Plant	Carex chordorrhiza	Creeping Sedge	E	1999
Vascular Plant	Milium effusum	Woodland Millet	T	1999
Vascular Plant	Conioselinum chinense	Hemlock Parsley	SC	2001
Vascular Plant	Potamogeton hillii	Hill's Pondweed	SC	2002
Vascular Plant	Sisyrinchium mucronatum	Slender Blue-eyed Grass	E	2005
Vascular Plant	Eriophorum gracile	Slender Cottongrass	T	2010
Vascular Plant	Galium labradoricum	Labrador Bedstraw	T	2010
Vascular Plant	Geum fragarioides	Barren Strawberry	SC	2010
Vascular Plant	Thuja occidentalis	Arborvitae	E	2010
Vascular Plant	Rhododendron maximum	Great Laurel	T	2013
E= Endangered, T=Threatened, SC=Special Concern				

Other Plants:

Ground juniper, aspen, chokeberries, smooth sumac, bittersweet, blueberries, crabgrass, knotweed, clovers, morning glory, goldenrod, thistle, dandelion, greenbriers, alder, choke cherry, poison ivy, grapes, meadowsweet, rye grasses, panic grass, wild strawberries, wild carrot, milkweed, asters, ragweed

Public Shade Trees

Public shade trees are defined as trees located within the public right of way, and are regulated by Massachusetts General Law Chapter 87. Chapter 87 outlines the authorities of the town's Tree Warden, establishes procedures for cutting or removing public shade trees, and sets penalties for violations. The Tree Warden is responsible for the cutting and maintenance of trees along town-owned roads, and in general, cannot do so without first holding a public hearing. However, trees below the size of 1 1/2 inches are exempt from



Figure 4.3—The Jefferson Salamander (Ambystoma jeffersonianum) is an amphibian species of special concern found in some of Richmond’s priority natural communities.

this requirement. If an objection is made to the proposed cutting, approval must be sought from the Town’s Select Board before the cutting can proceed.

In the case of designated Scenic Roads, the town’s Planning Board must approve any cutting after a public hearing. Trees located along state highways are the jurisdiction of MassDOT, and do not require a public hearing to be cut. Moreover, while Chapter 87 sets limits on the cutting of public shade trees, the regulation does not inhibit a municipality from cutting or removing trees that endanger public safety, or for the purposes of widening a road.

Public shade trees are important in Richmond, particularly in defining the town’s rural and scenic character. Members of the Richmond OSAC identified an area of overhanging trees along Swamp Road as one of Richmond’s unique features (see Section 4F). Additionally, the town has many beautiful tree lined roadways, such as along East Road, West Road, and other town roadways.

Priority Natural Communities

Four priority natural communities exist in the Town of Richmond. Natural communities are “assemblages of species that occur together in space and time. These groups of plants and animals are found in recurring patterns that can be classified and described by their dominant physical and biological features” (NHESP Natural Communities, 2015). Globally rare natural communities, or those with limited local distribution, are considered priority natural communities. Of the 4 priority natural communities found in Richmond, all are classified by NHESP as “S2” meaning they are imperiled communities with typically 6-20 sites or few remaining acres in the state. All of Richmond’s priority natural communities are found in two areas in town. These areas are described by the BioMap2 project as “Core Habitat”. For more information on BioMap2 and wildlife habitat, refer to Section 4E—Fisheries and Wildlife.

Black Ash– Red Maple– Tamarack Calcareous Seepage Swamp

This priority natural community is found in only two locations in Richmond (as are the other 3 priority natural community types). The first is within a core habitat area just west of Swamp Road around Crystal Lake and extending to the southwest between Lenox and Dublin Roads (Core Habitat Area 1912). The second is within a core habitat area located just east of Swamp Road between the intersections of Swamp Road with March Hare and Sleepy Hollow Road. This area extends east to encompass some of the west facing slope of Lenox Mountain (Core Habitat Area 1937). Much of this second area is contained within Fairfield Brook Natural Heritage Area, a protected state-owned open space.

Black Ash– Red Maple– Tamarack Calcareous Seepage Swamps are found primarily in the western portions of Massachusetts in areas with extensive limestone and other calcareous, or calci-



um containing, bedrock. The calcium raises the pH of surrounding groundwater and helps to support calcium loving (calciphilic) species. Dominant tree species include Black Ash (*Fraxinus nigra*), Tamarack (*Larix laricina*) and Red Maple (*Acer rubrum*). Other common species often include Yellow Birch (*Betula allegheniensis*), White Pine (*Pinus strobus*) and Hemlock (*Tsuga Canadensis*). Rare species that are known to occur in this type of natural community include Schweinitz's sedge (*Carex schweinitzii*) and Jefferson Salamander (*Ambystoma jeffersonianum*) (see Figure 4.3) among others (NHESP 2010).

Soils are usually high in organic material, and the surface usually has a hummocky topography. As the term seepage indicates, these areas are often fed by groundwater as opposed to being part of openly flowing streams or rivers.

Calcareous Seepage Marsh

Calcareous seepage marshes also occur on calcareous bedrock and are fed primarily by groundwater. These marsh areas are dominated by shrub species such as Swamp Birch (*Betula pumila*), Hoary Willow (*Salix candida*), and Meadowsweet (*Spiraea latifolia*). Swamp Birch and Hoary Willow are considered calciphilic species. Other common wetland species, such as sedges (*Carex* sp.) and cat-tail (*Typha* sp.) are found within the herbaceous layer of these marsh areas (NHESP Calcareous Seepage Marsh Fact Sheet, 1999). This marsh area is also found within Fairfield Brook Natural Heritage Area, located east and west of Swamp Road.

Calcareous Sloping Fen

These wetland environments occur on slightly sloping topography where there is calcareous groundwater seepage. These areas are open and dominated by sedge species. Calcareous sloping fens are considered the most nutrient and species rich of the fen communities found in Massachu-

setts and are often “hot-spots” for rare species (NHESP Calcareous Sloping Fen Fact Sheet 1999).

Rare plant species can include *Carex sterilis*, or Dioecious Sedge and *Carex Tetanic*, or Fen Sedge, among others. Rare animal species that are often associated with calcareous sloping fens include the Bog Turtle (*Clemmys Muhlenbergii*), amphipod species and the rare dragonfly species, the Ebony Boghaunter (*Williamsonia Fletcheri*). This fen area is located within the core habitat area found near Crystal Lake in the Town of Richmond.

Calcareous Rocky Summit/Rock Outcrop Community

This priority natural community is found within the core habitat area found east of Swamp Road and along the west facing slope of Lenox Mountain (Core Habitat area 1937). This natural community is characterized by rocky calcareous outcrops and is often very dry due to topography and the shallow depth to bedrock (NHESP, 2000).

4E FISHERIES AND WILDLIFE

For mapped habitat areas, vernal pools, and BioMap2 components, please refer to Map F—Fisheries, Vegetation, and Wildlife in Appendix A—Maps.

For a list and map of parcels containing BioMap2 core habitat or Priority Conservation Areas, please refer to Appendix B.

For additional information related to BioMap2 components and state listed priority conservation areas, please refer to reports attached as Appendix F.

Richmond's forests, brooks, wetlands, and other natural environments provide habitat for both common and rare wildlife species, including some

endangered, threatened and special concern species. The Massachusetts Department of Fish and Game Natural Heritage program lists 24 endangered, threatened, or special concern species sighted within Richmond since 1901. Of these, 10 have been sighted since 2005 (See Table 4.4—Threatened, Endangered and Special Concern Species Sighted in Richmond, MA). In addition to the species sighted in this list, other rare species have been noted in Richmond, including Fringed Gentian (*Gentiana crinita*) along Sleepy Hollow Road. Additionally, Pitcher plants (*Sarracenia purpurea*) used to be found along East Road (Gloria Morse Personal Communication 2015).

BioMap2 is a statewide mapping project that combines 30 years of rare species and natural community data from the NHESP with wildlife species and habitat assessments that were conducted as part of the Division of Fisheries and Wildlife’s 2005 State Wildlife Action Plan (SWAP). Additionally, BioMap2 data integrates the Nature Conservancy’s assessment of large, connected and intact ecosystems across the state. (NHESP, 2012).

BioMap2 has two primary components, Core Habitat and Critical Natural Landscape. Core Habitat includes “areas that are critical for the long term persistence of rare species and other species of conservation concern” (NHESP, 2012). According to BioMap2, Core Habitat is found on 1,830 acres in Richmond or around 15% of the land in town. As described in Section 4D—Vegetation, two of these core habitat areas contain the Town of Richmond’s four priority natural communities.

Critical Natural Landscape identifies large contiguous landscape blocks that have been minimally impacted by development. The BioMap2 report for the Town of Richmond notes that “if protected, these areas will provide habitat for wide-ranging native species, support intact ecological

Table 4.5 - Unique Features of Richmond, MA	
Source: Richmond Open Space Committee 2015	
Please Refer to Map 5—Unique Features	
#	Name
1	Lenox Mountain overlooking Richmond Pond
2	Richmond Furnace
3	Perry’s Peak
4	Heron Rookery on Swamp Road
5	Steven’s Glen
6	Overhanging Trees on Swamp Road, also known as “The Cathedral”
7	Malnati Farm
8	Shark Rock
9	Quarries
10	Northeast Richmond School Historic Building
11	Bartlett’s Orchard
12	Hilltop Orchard
13	Berkshire Beagle Club
14	Richmond Pond
15	Olivia’s Overlook
16	Richmond Boulder Train
17	Goodwood Historic Building
18	Historic Icehouse Foundations



processes, maintain connectivity among habitats, and enhance ecological resilience to natural and anthropogenic disturbances in a rapidly changing world” (NHESP, 2012). Critical natural landscape comprises 3,759 acres or 30.8% of all land within the town.

Another layer added to the BioMap2 components are priority conservation areas (PCA) that have been identified in each town within the Housatonic River watershed by NHESP. In Richmond, there are four PCAs that have been identified as well as a portion of a regional PCA. These areas were selected as PCAs if they contained priority natural communities or large areas of intact habitat. Regional PCAs were chosen as areas that cross town borders and have a need for greater ecological connectivity. These areas can be seen in Map F: Fisheries, Vegetation, and Wildlife.

PCA 1 and Regional PCA 6 are located along the Yokun Ridge and also extends to surround the two priority natural communities located near Crystal Lake.

PCA 2 is located along Fairfield Brook in east-central Richmond, and includes much of the land contained within the Fairfield Brook NHA.

PCA 3 is located just south of Richmond Pond and includes the large block of wetlands found there. Much of this area is permanently protected by the Nordeen Marsh NHA.

PCA 4 is located along Cone Brook between Route 41 and the CSX rail line. PCA 4 is comprised primarily of a large wetland block.

Vernal Pools

Vernal pools are a unique type of wetland and wildlife habitat, and are sometimes known as autumnal or ephemeral pools or temporary woodland ponds. Vernal pools are shallow depressions that are seasonally flooded with water. They can vary greatly in size. During summer months, vernal pools are usually dry. However, spring snow

melt and rain transform these areas into rich wildlife habitat. Vernal pools are protected by the Wetlands Protection Act. State law requires that vernal pools must be certified prior to gaining protected status and must be located within the resource (buffer) area of a documented wetland, meaning that isolated vernal pools, regardless of certification, have few protections. However, the Town of Richmond has a local wetland by-law which exceeds state requirements, and extends wetland protections to any vernal pool found within the town, not just those located in the resource area of existing wetlands.

Vernal pools are certified by the state Natural Heritage and Endangered Species Program (NHESP). Certification involves the documentation of the potential vernal pool’s physical characteristics, including the lack of a permanently flowing outlet for water and evidence that the pool dries out during the year. Additionally, certification involves the documentation of wildlife species that commonly use vernal pools. While the NHESP uses aerial photography to help identify vernal pools, they also rely extensively on reporting of potential vernal pools from citizens and landowners.

Due to the fact that vernal pools dry partially or completely during the summer months, fish are prevented from permanently establishing themselves. This makes vernal pools important breeding habitat for amphibian and invertebrate species that would otherwise face extensive predation from fish species. Species that rely on vernal pools for breeding habitat include amphibians (frogs, salamanders and toads), reptiles (turtles and snakes), as well as some invertebrate species like dragonflies or fairy shrimp (NHESP, 2015).

Within Richmond, there are 11 certified vernal pools, and another 28 areas that have been identified as potential vernal pools, but have not been certified as such (See Map F, Vegetation, Fisheries and Wildlife). A list of parcels containing potential



Figure 4.4—Shark Rock is a Richmond Landmark found along Lenox Road. According to the Berkshire Eagle, prior to the release of the movie “Jaws”, Shark Rock was painted to resemble a snake. Photograph credit Virginia Larkin.

vernal pool locations is included in Appendix B. and locations can be found on Map J. This map can assist the town in locating these potential vernal pools for future certification.

Wildlife Corridors and Connectivity

The 2016 Berkshire County Regional Transportation Plan (RTP), prepared by BRPC, outlines and identifies priority wildlife corridors and connectivity areas in Berkshire County. Information used to identify wildlife corridors and priority crossing areas is derived from the University of Massachusetts Amherst and Nature Conservancy “critical linkages” project. The goal of the critical linkages project was to comprehensively assess where connections should be protected or restored to support the Commonwealth’s wildlife and biodiversity.

Based on information from the RTP, there are no priority wildlife crossing areas identified within the Town of Richmond. However, a section of Route 20, immediately north of the town within the City of Pittsfield, is considered a priority road segment to enhance wildlife connectivity.

4F SCENIC RESOURCES AND UNIQUE ENVIRONMENTS

For more information on this section, please refer to Map 5— Unique Features and Table 4.5—Unique Features of Richmond, Ma.

Historic Resources

Massachusetts Cultural Resource Information System (MACRIS) Database

The Massachusetts Cultural Information Resource System (MACRIS) is a database maintained by the Massachusetts Historical Commission (MHC) that lists historic structures, areas, objects, and burial grounds recognized at the local, state, and national level. Within Richmond, the MACRIS database lists 114 buildings and sites with historic significance. Of these, six are listed on the National Register of Historic Places and include the Kenmore estate and the Richmond Furnace Historical and Archaeological district (See Table 4.6-Historic Resources in Richmond, MA).

Richmond Historical Commission

The Richmond Historical Commission works to protect historic assets in town and has actively

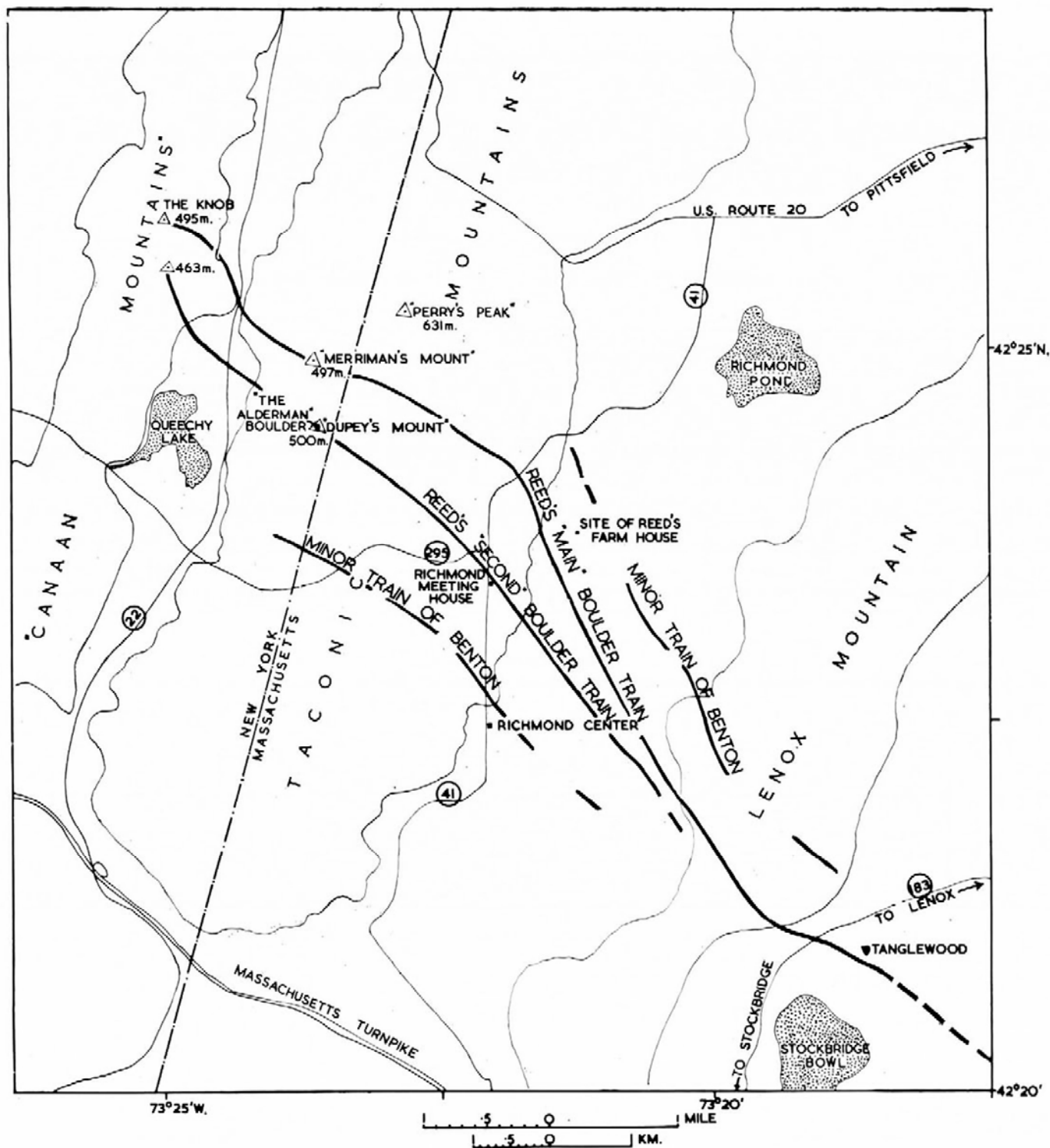


Figure 4.5—Map of the Richmond boulder train from the *Journal of Glaciology*, Vol. 6, No. 45, 1966. The discovery and identification of the Richmond boulder train in the mid-1800's led to the theory of glaciation.

worked to add properties to the national historic register. The commission has also been working to update the town's inventory of historic buildings. For additional information about the town's historic resources, including buildings, cemeteries and monuments, please

Other Unique Features

Beyond its historic and cultural resources, the town has many other unique features. In 1981, the Commonwealth conducted an inventory of scenic landscapes within the state. These inventories were intended to help guide acquisition and conservation efforts. The extents of the scenic landscape identified in Richmond can be seen on Map 5: Unique Features, and include most of the eastern portion of the town from West Stockbridge to Pittsfield.

Other unique features that were identified by the Richmond OSAC are also included on Map 5 and in Table 4.5. This list contains some of the town's more prominent historic buildings, scenic views, and agricultural landscapes. A short description of some of these areas is included below.

Swamp Road Heron Rookery

A Great Blue Heron Rookery is located in a wetland and small pond along Swamp Road that is part of the Camp Marion White summer camp property. The rookery is a nesting area for Great Blue Herons, and Osprey have been sighted there as well. The birds nest in the many dead trees throughout the wetland and can be seen from Swamp Road (See Figure 4.1).

Overhanging Trees on Swamp Road, also known as "The Cathedral"

Along Swamp Road, between the intersections of Lenox Road and Summit Road, there is a section of the road where the tree canopy overhangs and envelopes the road. This area is sometimes locally referred to as "The Cathedral" and is a local

landmark.

Shark Rock

Shark Rock is a landmark found on Lenox Road, and as its name implies, consists of a large road-side boulder that has been painted to resemble a shark (see Figure 4.4). If travelling from Richmond to Lenox, Shark Rock can be seen just before Olivia's Overlook. According to the Berkshire Eagle, Shark Rock is touched up with a fresh coat of paint every few years by a local artist. Moreover, the rock has been painted for the last 60 to 70 years. Prior to the release of the movie "Jaws", the rock was painted to look like a snake (Dobrowolski, 2009). It should be noted that Shark Rock is a glacial erratic boulder that is part of the Richmond Boulder Train (Gloria Morse Personal Communication 2015) (see additional discussion of the Richmond Boulder Train later in this section).

Berkshire Beagle Club

The Berkshire Beagle Club is located on Sleepy Hollow Road. The club contains a clubhouse and two fenced running grounds, each of approximately 30 acres. The club is used for Beagle training, field trials, and other competitions.

Richmond Boulder Train

The Richmond Boulder Train is a unique geologic feature that was identified in the mid-1800's by Dr. Stephen Reed, a local physician, schoolmaster, and farmer. Reed identified a line of boulders stretching through the Richmond landscape with geology that did not match the underlying bedrock. Reed noted that the rock found within the boulders closely resembled that found near "The Knob", a mountain in nearby New York State. Reed understood that the movement of these large boulders could only have occurred by some great force. Other scientists noted that similar boulder formations occurred near large glaciers in the Alps, and theorized that similar glacier action



had created the Richmond boulder train. Eventually, Reed's work led to the development of the theory of continental glaciation, whereby much of New England and North America was covered by glaciers during the last ice age around 20,000 years ago (Holmes 1966). This glacial activity formed much of the landscape we see today, and Dr. Stephen Reed and the Richmond countryside were instrumental toward our understanding of this process. (See Figure 4.5 for a map of the Richmond boulder train).

4G ENVIRONMENTAL CHALLENGES

The Town of Richmond faces several environmental challenges that can affect open space and recreation within the town. These challenges are listed in this section along with potential recommendations to address these issues.

Water Quality and Management of Richmond Pond

A variety of factors indicate that there is a challenge to manage Richmond Pond both ecologically and recreationally. These include:

1. Richmond Pond's status as an impaired waterbody named in the EPA's 303(D) list due to the presence of Eurasian Milfoil.
2. The Pond's shared location on the boundary of two municipalities.
3. The pond and its associated shoreline's ecological value as habitat for the Bridle Shiner and as mapped NHESP and BioMap2 priority and core habitat.
4. The pond and dam's value as a piece of both man-made and "green infrastructure" which helps to control downstream flooding in Pittsfield and manage invasive species.
5. The variety of communities (year-round residents, seasonal residents and summer camps) that surround the pond and value it both aesthetically and recreationally.

The Town of Richmond has been actively working to help manage the pond along with the Rich-

mond Pond Association, which acts as the primary advocate for issues regarding the pond and the communities that surround it. Both organizations have taken proactive measures to study Richmond Pond and its needs and address issues including invasive species among others. However, given the shared jurisdiction of the pond, its management needs, and its importance to the town, the town should work with both the City of Pittsfield and the Commonwealth of Massachusetts to secure funding, technical assistance or other aid to help manage the pond.

Residential Development

Residential development has historically exceeded industrial and commercial development in Richmond; however, as indicated in the Richmond Long Range Planning Study, development has slowed in recent years. Residential development is regulated through several strong mechanisms in town including the Berkshire Scenic Mountain Act, zoning, the Wetlands Protection Act, and subdivision controls. However, residential development can still have an impact on open space, natural areas and sensitive ecological areas. Residential development can contribute to habitat and landscape fragmentation as well as be a source of sediment run-off and other non-point source pollution. Most development in Richmond is in the form of single family residential homes, and development through subdivision creation has been limited over the years. However, the town might explore the adoption of an Open Space Residential Development (OSRD) by-law which could help to preserve additional open space in future development. OSRD by-laws, also known as cluster development by-laws, provide incentives to developers to preserve existing open space, particularly on development of larger parcels. OSRD by-laws can have many benefits including preserving agricultural lands and rural character, as well as providing for a diversified housing stock.

Unpaved Roads and Non-Point Source Pollution

Unpaved or dirt roads are a major source of non-point source pollution such as sediment, or soil particles that are suspended in water. Sediment from unpaved roads is a major contributor to water quality problems in Massachusetts. (BRPC 1997). Non-point source pollution is distinguished from point source pollution, which refers to pollution that has a particular entry site such as a factory's smokestack or effluent pipe. With the decline of point source pollution problems due to the Clean Water Act of 1972, nonpoint source pollution has become a growing concern. Nonpoint source (NPS) pollution, unlike pollution from sewage treatment plants and industrial discharge pipes, comes from many diffuse sources and is difficult to address due to its dispersed nature.

Sediment can cause water quality issues for both humans and wildlife. Sediment can affect the aesthetic quality of recreation areas, as well as accumulate in drainage structures, causing them to fail. Moreover, sediment pollution and the related process of erosion can destroy critical infrastructure such as roads and culverts. Additionally, sedimentation can cause dams and reservoirs to fill in at an accelerated rate. In aquatic habitats, sediment can cause harm to fish gills and cause spawning areas to fill in. Small organisms that live in stream and lake beds may be suffocated as sediment accumulates over them. This can lead to a breakdown in the aquatic food chain (BRPC 2004).

Proper maintenance of unpaved roads can help to address issues of NPS pollution by sediment. Many of the possible maintenance actions include those that are already performed by the town as part of routine road maintenance to prevent road failure or to address issues such as dust. In general, communities wishing to address sediment pollution should work to fix existing drainage and erosion problems on their unpaved roads, such as managing ditches to ensure they have adequate gravel or vegetative cover or installing check dams to reduce water velocity. Road grading and shaping, which are generally performed annually

by towns, can also help to maintain the road crown which can reduce erosion and therefore sediment pollution. While these routine maintenance activities can help to address sediment pollution, implementation of BMP's specific to sediment reduction can provide extra water quality protections particularly in ecologically sensitive areas or where sediment issues could degrade recreational water resources.

BRPC has been involved with several studies of unpaved roads and water quality. This led to the creation of a system of Best Management Practices (BMPs) for unpaved roads in 2001, and community level assessments of possible improvements to address sediment pollution from unpaved roads in 2004, primarily in the municipalities located within the Farmington River Watershed.

Cone Road Landfill Site

The Town of Richmond's former landfill is located along Cone Hill Road. The landfill has been closed for many years and was capped in the 1980's. The landfill is unlined. The town has been exploring options to reduce the environmental impact of this site for sometime, through work with state agencies.

Environmental Equity

Richmond has a fairly even distribution of publicly accessible recreation lands throughout the town. However, one area that is lacking is the southwest corner of town. One of the goals of this plan is examine possible recreation options, such as a hiking trail in the small area of Pittsfield State Forest off Dean Hill Road. The town should pursue this possibility to expand recreation options for this area of town.



Table 4.6 - Historic Resources in Richmond, MA

Source: MHC MACRIS Database, 2015

MACRIS Inv. No.	Property Name	Street	Year	State Register of Historic Places	National Register of Historic Places
RIC.A	Richmond Furnace Historical and Archaeological District			Y	Y
RIC.B	Richmond Iron Works Worker Housing				
RIC.36	Terrill - Hallock House	Canaan Rd	c 1775		
RIC.56	Center Schoolhouse, Old	Canaan Rd	1828		
RIC.802	Northeast Cemetery	Cemetery Rd	1771		
RIC.62	Richmond Town Hall, Old	Church Ln	1842		
RIC.803	Cone Hill Cemetery	Cone Hill Rd	1779	Y	
RIC.81		424 Cone Hill Rd	1984	Y	
RIC.82		426 Cone Hill Rd	1988	Y	
RIC.83		532 Cone Hill Rd	1971	Y	
RIC.31	North School	Dublin Rd	c 1845		
RIC.35	Shaker Farm	Dublin Rd	c 1795	Y	Y
RIC.50		Dublin Rd	c 1815		
RIC.51		Dublin Rd			
RIC.47	Elmwood	East Rd			
RIC.48		East Rd	c 1840		
RIC.49	Fairfield House	East Rd			
RIC.59	Stephens - Buchanan House	East Rd	c 1800		
RIC.17	Richmond Iron Works Ironmaster's House	20 Furnace Ln	c 1832		
RIC.84	Richmond Iron Works Worker Housing	30 Furnace Ln	c 1873		
RIC.85	Richmond Iron Works Worker Housing	42 Furnace Ln	c 1873		
RIC.86	Richmond Iron Works Office	65 Furnace Ln	1862		
RIC.87		87 Furnace Ln	1970		
RIC.905	Mill Stone #1	87 Furnace Ln	c 1777		
RIC.906	Mill Stone #2	87 Furnace Ln	c 1777		
RIC.91		Furnace Rd	c 1923		
RIC.907	Furnace Road Stone Wall	Furnace Rd	r 1780		
RIC.88	Richmond Iron Works Worker Housing	199 Furnace Rd	c 1873		
RIC.89		293 Furnace Rd	1973		
RIC.90		421 Furnace Rd	1971		
RIC.13		Lenox Rd	c 1830		
RIC.14	Blue Heaven Farm	Lenox Rd	c 1794		
RIC.44		Lenox Rd	c 1830		
RIC.12	Cook, Dea. House	March Hare Rd	c 1780		
RIC.1	October Hill	Pittsfield Rd			
RIC.2	Kimball House	Pittsfield Rd	c 1858		
RIC.20		Route 41			
RIC.21		Route 41	r 1840		
RIC.22		Route 41	c 1850		
RIC.23		Route 41	c 1805		
RIC.24	Mount Ephraim	Route 41	1809		
RIC.25	Fields, Old	Route 41	1812		
RIC.27	Peirson House	Route 41	r 1787		
RIC.28	Crittenden, L. House	Route 41			

Table 4.6 - Historic Resources in Richmond, MA—Continued*Source: MHC MACRIS Database, 2015*

MACRIS Inv. No.	Property Name	Street	Year	State Register of Historic Places	National Register of Historic Places
RIC.28	Crittenden, L. House	Route 41			
RIC.29	Green Meads Farm	Route 41			
RIC.30	Chapin House	Route 41	1786		
RIC.32	Parmeale, Silas House	Route 41	c 1763		
RIC.33		Route 41			
RIC.34	Hall - Clark House	Route 41	c 1830		
RIC.37	Bishop, Nathaniel House	Route 41	c 1775		
RIC.38		Route 41	c 1830		
RIC.42		Route 41	r 1840		
RIC.54		Route 41	1771		
RIC.801	North Cemetery	Route 41	1796		
RIC.9		Sleepy Hollow Rd	r 1850		
RIC.10	Nichols - Hunt House	Sleepy Hollow Rd	r 1840		
RIC.11	Ratcliff House	Sleepy Hollow Rd	c 1830		
RIC.57	Depot School	State Rd	c 1857		
RIC.63		State Rd	c 1770		
RIC.64		State Rd			
RIC.100		State Rd	1985	Y	
RIC.101	Furnace Pond Water Valve Shed	State Rd	c 1926	Y	
RIC.800	Richmond Center Cemetery	State Rd	1766		
RIC.900	Richmond Blast Furnace	State Rd	1829	Y	
RIC.901	Hand, Daniel Monument	State Rd			
RIC.908	Furnace Pond Main Dam	State Rd	r 1780	Y	
RIC.909	Furnace Pond Main Dam Spillway	State Rd	1906	Y	
RIC.910	Furnace Pond Main Dam Bridge	State Rd	1906	Y	
RIC.911	Furnace Brook Bridge	State Rd	c 1945	Y	
RIC.41	Cogswell Cottage	1226 State Rd	1762		
RIC.26	Kenmore	1385 State Rd	1792	Y	Y
RIC.19	Richmond Iron Works Worker Housing	2755 State Rd	c 1873	Y	
RIC.73	Richmond Iron Works Worker Housing	2771 State Rd	c 1873	Y	
RIC.69	Richmond Iron Works Worker Housing	2774 State Rd	c 1840	Y	
RIC.74	Richmond Furnace Works Worker Housing	2779 State Rd	c 1873	Y	
RIC.75	Richmond Furnace Works Worker Housing	2785 State Rd	c 1873	Y	
RIC.76	Richmond Furnace Works Worker Housing	2793 State Rd	c 1873	Y	
RIC.77	Richmond Furnace Works Worker Housing	2801 State Rd	c 1873	Y	
RIC.78	Richmond Furnace Works Worker Housing	2805 State Rd	c 1873	Y	
RIC.99		2806 State Rd	1950	Y	
RIC.80	Richmond Iron Works Worker Housing	2815 State Rd	c 1873	Y	
RIC.92		2821 State Rd	c 1923	Y	
RIC.93	Richmond Furnace Library	2821 State Rd	1930	Y	
RIC.94	Richmond Iron Works Worker Housing	2834 State Rd	c 1840	Y	
RIC.95	Richmond Iron Works Worker Housing	2836 State Rd	c 1840	Y	
RIC.96		2851 State Rd	1984	Y	



Table 4.6 - Historic Resources in Richmond, MA– Continued

Source: MHC MACRIS Database, 2015

MACRIS Inv. No.	Property Name	Street	Year	State Register of Historic Places	National Regis- ter of Historic Places
RIC.96		2851 State Rd	1984	Y	
RIC.97		2867 State Rd	1946	Y	
RIC.98		2871 State Rd	1931	Y	
RIC.72	Richmond Iron Works Worker Housing	2900 State Rd	c 1840	Y	
RIC.70	Richmond Iron Works Worker Housing	2922 State Rd	c 1840	Y	
RIC.58	Richmond Furnace School	2953 State Rd	c 1890	Y	
RIC.45	South East School	Stevens Glen Rd	c 1858		
RIC.46	Little Farm	Stevens Glen Rd	r 1840		
RIC.5	General Store	Summit Rd	c 1830		
RIC.6	Dewey - Seymour - Eldridge House	Summit Rd	c 1820		
RIC.7	Goodwood	Summit Rd	c 1799	Y	Y
RIC.8	Salmon House	Summit Rd	r 1830		
RIC.39		Summit Rd	r 1800		
RIC.40	Parsonage, Old	Summit Rd	r 1800		
RIC.60		Summit Rd	c 1910		
RIC.61		Summit Rd			
RIC.902	Lime Kiln	Summit Rd	1880		
RIC.43	Northeast School	981 Summit Rd	c 1791	Y	Y
RIC.3	Nichols - Sterner House	Swamp Rd	c 1820	Y	Y
RIC.15		Swamp Rd	r 1840		
RIC.16	April Hill	Swamp Rd	r 1840		
RIC.71		Swamp Rd	c 1800		
RIC.65		West St			
RIC.66		West St			
RIC.67		West St			
RIC.68		West St			

SECTION 5: INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST

Open space is defined as land that has not been developed for residential, commercial or industrial uses and includes publicly and privately owned land. Open space often has particular interest to conservation or recreation and includes:

1. Land which contributes to the public water supply
2. Forests, fields, and agricultural lands
3. Wetlands
4. Rivers, streams, and lakes
5. Parks and other recreation lands
6. Wildlife or animal habitats
7. Land which preserves scenic views or town character

As described in previous sections, Richmond has an abundance of forest and agricultural lands, as well as wetlands and water resources. Due to the underlying limestone bedrock that creates the alkaline environments of the Western Marble Valleys Ecoregion, Richmond has unique natural areas that support a diversity of plant and animal species. Conservation lands not only protect some of the natural resources in Richmond, but provide space for recreation and working agriculture. Moreover, they give Richmond the rural feel and small town character that residents value.

Land in Richmond is protected in a variety of ways and with varying degrees of protection. Conservation and recreation lands in the Town of Richmond are protected by four entities; the town, the Commonwealth of Massachusetts, local land trusts, and private landowners.

Land is considered under permanent protection if it is owned by the state or a local land trust. It may also be permanently protected if the land is subject to a conservation restriction. Within the Town of Richmond, many privately owned properties are considered to be under permanent pro-



LANDS OF CONSERVATION AND RECREATION INTEREST AT A GLANCE

Protected Lands

Lands with limited or permanent protection total 1300 acres in Richmond, or around 11% of all land within the town.

Chapter 61 Properties

Chapter 61 properties total over 4800 acres, or roughly 40% of all land in town.

Recreation Opportunities

Richmond has several areas for recreation, including the town beach, elementary school, Steven's Glen, Hollow Fields Reserve and North Yokun Ridge to name a few.



Table 5.1 - Protected Lands in Richmond, MA

Source: MASS GIS, 2015 and Richmond Land Trust, 2015

Protected Land Category	Acres	% of Protected Land	% of Total Land (12,179.49 Acres)
Municipal	77.74	1.26%	0.64%
Land Trust	334.50	5.43%	2.75%
Private	611.56	9.93%	5.02%
State	288.49	4.69%	2.37%
Subtotal	1312.29	21.32%	10.77%
Chapter 61 Lands	4843.77	78.68%	39.77%
Total	6156.05	100.00%	50.54%

tection due to conservation restrictions held by local land trusts. The town of Richmond also owns a parcel in the northwest corner of town considered under permanent protection due to a conservation restriction (see Map 7—Lands of Conservation and Recreation Interest).

Areas under limited protection include other town-owned parcels such as the Richmond Consolidated school and its associated playground areas, as well as the town beach on Richmond Pond.

Areas under Chapter 61 (A, or B) tax reduction programs are considered to have temporary protections, as they are privately owned.

All privately owned lands without conservation restrictions or not enrolled in Chapter 61 are considered to be unprotected.

5A PRIVATE PARCELS

Privately owned conservation lands in Richmond comprise just over 611 acres or 5.4% of all land within the town (See Table 5.1—Protected Lands

in Richmond, MA). These parcels have conservation easements held by two local land trusts, the Richmond Land Trust (RLT) and Berkshire Natural Resources Council (BNRC). It should be noted, that unless otherwise stated, private parcels should be considered off limits to public access.

Notable Privately Owned Recreation Areas Steven's Glen

Steven's Glen is a privately owned parcel with a permanent conservation restriction held by BNRC. The property straddles the town's southern boundary with West Stockbridge. This parcel contains a few miles of hiking trails, which are accessed from a trailhead on Lenox Road in West Stockbridge. The glen itself is a narrow gorge and several waterfalls that have been carved out of the bedrock by Lenox Mountain Brook.

The recreation potential of the property was recognized by the original owners, the Stevens family, who constructed bridges and paths throughout the property beginning in the late 1800's. The family also constructed a dance pavilion and charged admission to the property. In 1918, 900 party-goers from New York gathered at the property for dancing and revelry (RLT website, 2015). Today, the property no longer hosts such large gatherings. However, visitors can still hike trails along the edge of the gorge and enjoy its waterfalls.

Hilltop Orchards

Hilltop Orchards is located in the northwest corner of town off of Route 295 / Canaan Road. In addition to being a commercial apple orchard, this property is home to a network of trails that can be used for hiking or cross-country skiing. Additionally, the orchard hosts a popular full moon hike held year round.

Chapter 61, 61A, and 61B Lands

Chapter 61 is a state program that allows private landowners to manage their properties for forest-



Figure 5.1—Richmond Pond is the town’s largest body of water and a popular recreation area. The Town Beach is located at the northwest corner of the Pond. Photograph credit Paul Rocheleau .

ry (Chapter 61), agricultural (Chapter 61A), or recreational purposes (Chapter 61B) in exchange for reduced taxes. Parcels in the program for the purposes of forestry must be at least 10 acres in size and must have an approved 10-year management plan in place. Once enrolled in Chapter 61, the town where the property is located acquires a right of first refusal should the land be put up for sale. This right of first refusal can also be assigned by the town to a land trust or state agency. Chapter 61 lands are not considered permanently protected, as landowners can remove their property from the program at any time. However, there are monetary penalties associated with sale of properties enrolled in Chapter 61 for the purposes other than forestry, agriculture or recreation, as well as any changes in land use while enrolled. For more information on Chapter 61 programs, consult a local forester or the town assessor. Chapter 61 properties are privately owned and should be considered off limits to public access

without the landowner’s permission. There are a total of 188 Chapter 61 properties in Richmond which cover 4,843.77 acres, or 39.77% of all land in the town (see Table 5.1 in this section). While these properties certainly contribute to the town’s rural character and scenic beauty, they currently offer no public access or recreation opportunities.

5B PUBLIC AND NON-PROFIT PARCELS

Public and non-profit conservation and recreation lands total just over 700 acres within the town of Richmond, or around 6% of all land (See Table 5.1 and Table 5.2). Land trusts own over 334 acres within town, followed closely by the state’s three large holdings (Nordeen Swamp and Fairfield Brook Natural Heritage Area, as well as a small portion of Pittsfield State Forest in the southwest corner of town), which total 288 acres. The town of Richmond owns three parcels in this category,



Figure 5.2—The Richmond Recreation Committee organizes recreation programs and events in town, including the popular “Reach the Beach” 5K run/walk held in the spring.

totaling just over 77 acres (See Table 5.4 for a list of town owned conservation and recreation land). This includes the Richmond Consolidated School and its playground areas, the town beach, and a parcel with conservation restrictions in the north-west corner of town.

Notable Public and Non-Profit Recreation Areas

Olivia’s Overlook and North Yokun Ridge

Close to Steven’s glen is a notable overlook with a spectacular view to Stockbridge Bowl, a nearby Great Pond located within the town of Stockbridge. The overlook is located at the extreme southeastern corner of the town of Richmond along Lenox Road. The overlook contains a small parking lot and stone wall. The overlook area also serves as a trailhead for hiking along North Yokun Ridge on Lenox Mountain. Trails extend from Richmond into the nearby town of Lenox. The

property is owned by BNRC.

Hollow Fields Reserve

Hollow Fields Reserve is a conservation and recreation property owned by BNRC and located along Perry’s Peak Road. The reserve abuts the 45-acre town-owned conservation property. Trails throughout the parcel cross through forest and extensive meadows. Hollow Fields Reserve provides excellent habitat for the Bobolink (*Dolichonyx oryzivorus*), a small bird which nests only on the ground in open grassy fields and is noted for its unique call. Hollow Fields Reserve hosts BNRC’s annual spring Bobo-thon, in which birdwatchers and outdoor enthusiasts gather to watch the Bobolinks and celebrate the outdoors.

East Road, West Road, and Boys’ Club / Richmond Shores Road

Several roads in Richmond are popular destina-

tions for walking, running as well as dog walking and horseback riding. These roads are all relatively quiet and flat, unpaved, tree lined, and with low volumes of traffic which make them ideal for recreation use. East Road in particular was identified by the Richmond OSAC and the public survey as a popular road for recreational walking. East Road begins relatively flat near its intersection with Swamp Road. As it moves south towards Lenox Mountain, the road becomes steeper. The road is lined with fields and forests and has spectacular views on either side. Boys' Club and Richmond Shores Road are also utilized by walkers and runners. These roadways are also used to host the yearly "Reach the Beach" 5K walk/run event hosted by the Richmond Recreation Committee (see Figure 5.2). Both roads also contain informal parking pull-off areas, and are used by people who drive to these areas for recreation, in addition to being used by the residents that live along them.

It should also be noted that other unpaved roads in Richmond are frequently used for recreation. These include Sleepy Hollow Road and Dublin Road.

Richmond Town Beach

The Richmond town beach is located at the northwest corner of Richmond Pond. Only a small portion of the acreage of this parcel is located within Richmond. The beach and water access is primarily located within the City of Pittsfield but is owned by the Town of Richmond. The area is open to town residents and contains a small sandy beach and picnic location. As of the time of this writing in 2015, the Town of Richmond is working to implement many improvements to the town beach through a state funded grant. These improvements include the addition of picnic tables and barbecue grills, as well as the enhancement of seasonal sanitary facilities. Additionally, the town is working to improve access to the beach area through the installation of rubber mats that will allow wheelchair access. Finally, a gravel infiltration trench near the beach parking

area will help to capture stormwater runoff generated by the parking area before it reaches Richmond Pond.

On a historical note, the access road to the boat ramp and town beach was once a narrow gauge railroad bed. This rail line was used to support the iron works industry as well as ice harvesting on Richmond Pond and nearby quarrying operations. The foundations of the ice houses that were used to store ice harvested from Richmond Pond can be found near the town beach.

State Boat Launch

The state boat launch is located just south of the Richmond Town Beach along the western shore of Richmond Pond. The state boat launch provides the only publicly accessible launching location for small draft boats that require a trailer.

Richmond Consolidated School/Town Tennis Court

The Richmond Consolidated School is located on Route 41 just south of Town Hall. The school's playground area, baseball field, and soccer field and are open to the public when the school is not in use. Additionally, the school gymnasium is used to host local basketball and volleyball leagues, and the Richmond Recreation Committee's annual Ping Pong tournament. Directly north of the school is the town owned tennis court. The court is paved and fenced and available for public use.

Non-Profit Parcels of Conservation and Recreation Interest Camp Marion White

As briefly mentioned in Section 4C, Camp Marion White is a summer camp owned by the Girl Scouts of Central and Western Massachusetts located along the southeastern shore of Richmond Pond. The camp has not been actively used by the Girl Scouts since 2010 and in late 2014, the organization voted to divest the property. This decision spurred the town of Richmond to pursue development of this OSRP. The Camp Marion White prop-



erty is comprised of three parcels totaling roughly 50 acres. Two of these parcels are located along the shore line of Richmond Pond and include the original Girl Scouts summer camp property and the former Camp Bluebird, a property that was once owned by the Women's Club of Pittsfield. East of these two areas is a third parcel that contains a large wetland area with a Great Blue Heron (*Ardea herodias*) rookery, or nesting site (See Figure 4.1).

Questions related to the purchase or preservation of Camp Marion White were included as part of the public survey that helped to inform the creation of this OSRP. Over 90% of survey respondents supported the purchase or preservation of the Camp.

A working group was convened by the town administrator in early 2015 to help address the possible purchase of the camp and coordinate actions. The Camp Marion White Working Group (CMWWG) included town staff, members of the Richmond Land Trust and Richmond Pond Association as well as other regional conservation organizations like the Berkshire Natural Resources Council (BNRC) and the Massachusetts Audubon Society. The working group developed vision and mission statements specific to the property, and has examined potential uses of the property by the Town of Richmond.

If used as a future recreation and natural area by the town, Camp Marion White would offer a range of potential recreation options for town residents. Camp Marion White has over 1000 feet of shoreline along Richmond Pond, with an area to launch kayaks and canoes and otherwise provide water access. Additionally, a small boat-house is available that could be utilized for boat storage or other purposes. The large Koerber Lodge building at Camp Marion White could also be used for hosting town events or by providing a rentable space for weddings or family reunions. Camp Marion White also offers a chance to increase the number of trails in Richmond. There is

an existing interpretive trail that has fallen into disuse and runs adjacent to the wetland found east of Swamp Road. This trail could be reconstructed, with additional interpretive elements installed. Moreover, there is a potential to create a looping trail throughout the two parcels adjacent to Richmond Pond. This trail could also have some winter use by cross-country skiers or snowshoers.

Camp Marion White Planning

The following vision and mission statements were developed by the CMWWG to guide future use of the property if acquired by the town.

Vision Statement:

The former Camp Marion White property is effectively-stewarded, safe, family-friendly open space that enriches the lives of Richmond residents and nonresidents while simultaneously sustaining the aesthetic qualities and ecological integrity of Richmond Pond and its surrounding watershed in perpetuity.

Mission Statement:

To cultivate a stronger sense of community and convey significant value to the Town of Richmond by: (1) offering facilities and open spaces that enable resident and nonresident visitors to take part in a wide range of passive and active forms of outdoor recreation, environmental interpretation, and special events in a setting that is accessible and inviting to all, and; (2) engaging in natural resource management practices that effectively conserve and/or enhance habitat for populations of native wildlife, provide for long-term protection of environmentally sensitive areas, and ultimately facilitate levels of environmental quality that reflect the high standards that the community sets for itself

Table 5.2 - Permanently Protected Open Space Parcels in Richmond, MA*Source: Mass. GIS Open Space, 2015 and Richmond Land Trust, 2015*

Site Name	Owner	Owner Type	Primary Purpose	Public Access	Level of Protection	Interest	Acres
Pleasant Valley Wildlife Sanctuary	Massachusetts Audubon Society	Land Trust	Conservation	Limited	Permanent		28.78
Unknown	Private	Private	Conservation	Limited	Permanent	BNRC	102.17
Unknown	Private	Private	Conservation	None	Permanent	RLT	13.02
Unknown	Private	Private	Conservation	None	Permanent	RLT	195.78
Unknown	Private	Private	Conservation	None	Permanent	RLT	1.05
Unknown	Private	Private	Conservation	None	Permanent	BNRC	51.46
Unknown	Private	Private	Conservation	None	Permanent	RLT	4.31
Unknown	Private	Private	Conservation	None	Permanent	BNRC	72.68
Unknown	Private	Private	Conservation	None	Permanent	BNRC	57.45
Unknown	Private	Private	Conservation	None	Permanent	RLT	18.49
Unknown	Private	Private	Conservation	None	Permanent	RLT	9.98
Unknown	Private	Private	Conservation	None	Permanent	RLT	85.15
Unknown	Berkshire Natural Resources Council	Land Trust	Conservation	Unknown	Permanent		6.11
Unknown	Berkshire Natural Resources Council	Land Trust	Conservation	Unknown	Permanent		73.96
Unknown	Berkshire Natural Resources Council	Land Trust	Conservation	Unknown	Permanent		12.77
Unknown	Berkshire Natural Resources Council	Land Trust	Conservation	Unknown	Permanent		6.92
Osceola Notch Road Conservation Area	Richmond Land Trust	Land Trust	Conservation	None	Permanent		2.67
Swamp Road Conservation Area	Richmond Land Trust	Land Trust	Conservation	None	Permanent		28.25
Swamp Road Conservation Area	Richmond Land Trust	Land Trust	Conservation	None	Permanent		8.96
Yokun Road Conservation Area	Richmond Land Trust	Land Trust	Conservation	None	Permanent		2.70
Dean Hill Road Conservation Area	Richmond Land Trust	Land Trust	Conservation	None	Permanent		7.88
Dublin Road Conservation Area	Richmond Land Trust	Land Trust	Conservation	None	Permanent		13.76
Dublin Road Conservation Area	Richmond Land Trust	Land Trust	Conservation	None	Permanent		2.89



Table 5.2 - Permanently Protected Open Space Parcels in Richmond, MA—Continued

Site Name	Owner	Owner Type	Primary Purpose	Public Access	Level of Protection	Interest	Acres
Colonial Acres Conservation Area	Richmond Land Trust	Land Trust	Conservation	None	Permanent		10.42
Canaan Road Conservation Area CR	Richmond Land Trust	Land Trust	Conservation	None	Permanent	BNRC	9.81
Canaan Road Conservation Area CR	Richmond Land Trust	Land Trust	Conservation	None	Permanent	BNRC	20.41
Canaan Road Conservation Area CR	Richmond Land Trust	Land Trust	Conservation	None	Permanent	BNRC	53.33
Canaan Road Conservation Area CR	Richmond Land Trust	Land Trust	Conservation	None	Permanent	BNRC	6.70
Additional Parcels	Richmond Land Trust	Land Trust	Conservation	None	Permanent		32.92
Nordeen Swamp Natural Heritage Area	Department of Fish and Game	State	Conservation	Yes	Permanent		24.27
Pittsfield State Forest	DCR - Division of State Parks and Recreation	State	Conservation and Recreation	Yes	Permanent		0.46
Pittsfield State Forest	DCR - Division of State Parks and Recreation	State	Conservation and Recreation	Yes	Permanent		99.89
Conservation Area	Richmond Land Trust	Land Trust	Conservation	None	Permanent		2.54
Conservation Area	Richmond Land Trust	Land Trust	Conservation	None	Permanent		2.72
Fairfield Brook Natural Heritage Area	Department of Fish and Game	State	Conservation	Yes	Permanent		21.80
Fairfield Brook Natural Heritage Area	Department of Fish and Game	State	Conservation	Yes	Permanent		51.33
Fairfield Brook Natural Heritage Area	Department of Fish and Game	State	Conservation	Yes	Permanent		52.35
Fairfield Brook Natural Heritage Area	Department of Fish and Game	State	Conservation	Yes	Permanent		38.39

Table 5.3 - Inventory of Private Lands with Chapter 61 Designation in Richmond, MA*Mass. GIS Open Space, 2015*

Location	Owner	Owner Type	Primary Purpose	Public Access	Level of Protection	Acres
PERRYS PEAK ROAD	Private	Private	Forestry	None	Chapter 61	66.52
PERRYS PEAK ROAD	Private	Private	Forestry	None	Chapter 61	23.08
YOKUN ROAD	Private	Private	Forestry	None	Chapter 61	2.95
OSCEOLA ROAD	Private	Private	Forestry	None	Chapter 61	8.07
STATE ROAD	Private	Private	Forestry	None	Chapter 61	23.53
STATE ROAD	Private	Private	Forestry	None	Chapter 61	20.80
STATE ROAD	Private	Private	Forestry	None	Chapter 61	20.80
CUNNINGHAM HILL ROAD	Private	Private	Forestry	None	Chapter 61	118.84
DEAN HILL ROAD	Private	Private	Forestry	None	Chapter 61	16.55
BIRCH LANE	Private	Private	Forestry	None	Chapter 61	63.32
WEST ROAD	Private	Private	Forestry	None	Chapter 61	62.52
SWAMP ROAD	Private	Private	Forestry	None	Chapter 61	16.18
CONE HILL ROAD	Private	Private	Forestry	None	Chapter 61	104.09
CONE HILL ROAD	Private	Private	Forestry	None	Chapter 61	104.09
STEVENS GLEN ROAD	Private	Private	Forestry	None	Chapter 61	94.88
STEVENS GLEN ROAD	Private	Private	Forestry	None	Chapter 61	94.88
SWAMP ROAD	Private	Private	Forestry	None	Chapter 61	34.70
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	37.04
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	37.04
DUBLIN ROAD	Private	Private	Agriculture	None	Chapter 61A	89.64
DUBLIN ROAD	Private	Private	Agriculture	None	Chapter 61A	48.96
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	23.88
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	10.32
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	10.32
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	4.80
CEMETERY ROAD & SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	23.34
SWAMP ROAD REAR	Private	Private	Agriculture	None	Chapter 61A	17.77
EAST ROAD	Private	Private	Agriculture	None	Chapter 61A	43.37
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	27.06
DUBLIN ROAD	Private	Private	Agriculture	None	Chapter 61A	11.86
SUMMIT ROAD	Private	Private	Agriculture	None	Chapter 61A	117.60
DUBLIN ROAD	Private	Private	Agriculture	None	Chapter 61A	33.59
SLEEPY HOLLOW ROAD	Private	Private	Agriculture	None	Chapter 61A	42.64
SLEEPY HOLLOW ROAD	Private	Private	Agriculture	None	Chapter 61A	9.06
SLEEPY HOLLOW ROAD	Private	Private	Agriculture	None	Chapter 61A	35.35
MARCH HARE ROAD	Private	Private	Agriculture	None	Chapter 61A	26.16
CANAAN ROAD	Private	Private	Agriculture	None	Chapter 61A	77.11



Table 5.3 - Inventory of Private Lands with Chapter 61 Designation in Richmond, MA—Continued

Location	Owner	Owner Type	Primary Purpose	Public Access	Level of Protection	Acres
ROSSITER ROAD	Private	Private	Agriculture	None	Chapter 61A	76.50
ROSSITER ROAD	Private	Private	Agriculture	None	Chapter 61A	76.50
ROSSITER ROAD	Private	Private	Agriculture	None	Chapter 61A	76.50
ROSSITER ROAD	Private	Private	Agriculture	None	Chapter 61A	76.50
ROSSITER ROAD	Private	Private	Agriculture	None	Chapter 61A	76.50
WEST ROAD	Private	Private	Agriculture	None	Chapter 61A	4.37
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	83.39
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	22.62
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	98.37
EAST ROAD	Private	Private	Agriculture	None	Chapter 61A	119.66
EAST ROAD	Private	Private	Agriculture	None	Chapter 61A	119.66
LENOX ROAD	Private	Private	Agriculture	None	Chapter 61A	23.16
CONE HILL ROAD	Private	Private	Agriculture	None	Chapter 61A	5.43
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	7.36
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	9.78
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	18.58
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	18.58
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	18.58
CANAAN ROAD	Private	Private	Agriculture	None	Chapter 61A	51.10
SWAMP ROAD	Private	Private	Forestry	None	Chapter 61	42.23
SWAMP ROAD	Private	Private	Forestry	None	Chapter 61	42.23
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	51.00
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	51.00
SUMMIT ROAD	Private	Private	Agriculture	None	Chapter 61A	77.61
MARCH HARE ROAD	Private	Private	Agriculture	None	Chapter 61A	80.98
PERRYS PEAK ROAD	Private	Private	Forestry	None	Chapter 61	52.57
PERRYS PEAK ROAD	Private	Private	Forestry	None	Chapter 61	16.83
PERRYS PEAK ROAD	Private	Private	Forestry	None	Chapter 61	54.59
PERRYS PEAK ROAD	Private	Private	Forestry	None	Chapter 61	59.82
PERRYS PEAK ROAD	Private	Private	Forestry	None	Chapter 61	78.77
PERRYS PEAK ROAD	Private	Private	Forestry	None	Chapter 61	166.63
PERRYS PEAK ROAD	Private	Private	Forestry	None	Chapter 61	17.24
EAST SLOPE ROAD	Private	Private	Forestry	None	Chapter 61	37.07
CEMETERY ROAD	Private	Private	Forestry	None	Chapter 61	72.65
OSCEOLA ROAD	Private	Private	Forestry	None	Chapter 61	16.28
STATE ROAD	Private	Private	Forestry	None	Chapter 61	23.42
STATE ROAD	Private	Private	Forestry	None	Chapter 61	50.38
STATE ROAD	Private	Private	Forestry	None	Chapter 61	28.29

Table 5.3 - Inventory of Private Lands with Chapter 61 Designation in Richmond, MA—Continued

Location	Owner	Owner Type	Primary Purpose	Public Access	Level of Protection	Acres
STATE ROAD	Private	Private	Forestry	None	Chapter 61	67.71
STATE ROAD	Private	Private	Forestry	None	Chapter 61	32.24
STATE ROAD	Private	Private	Forestry	None	Chapter 61	2.46
SWAMP ROAD	Private	Private	Forestry	None	Chapter 61	10.66
DEAN HILL ROAD	Private	Private	Forestry	None	Chapter 61	48.46
DEAN HILL ROAD	Private	Private	Forestry	None	Chapter 61	50.90
ROSSITER ROAD	Private	Private	Forestry	None	Chapter 61	2.83
ROSSITER ROAD	Private	Private	Forestry	None	Chapter 61	6.55
ROSSITER ROAD	Private	Private	Forestry	None	Chapter 61	5.29
DUBLIN ROAD	Private	Private	Forestry	None	Chapter 61	17.81
LENOX ROAD	Private	Private	Forestry	None	Chapter 61	4.76
STEVENS GLEN ROAD	Private	Private	Forestry	None	Chapter 61	2.52
STEVENS GLEN ROAD	Private	Private	Forestry	None	Chapter 61	14.41
STEVENS GLEN ROAD	Private	Private	Forestry	None	Chapter 61	12.48
DEAN HILL ROAD	Private	Private	Forestry	None	Chapter 61	64.03
DEAN HILL ROAD	Private	Private	Forestry	None	Chapter 61	10.07
DEAN HILL ROAD	Private	Private	Forestry	None	Chapter 61	14.31
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	35.21
SUMMIT ROAD	Private	Private	Agriculture	None	Chapter 61A	77.57
SLEEPY HOLLOW ROAD	Private	Private	Agriculture	None	Chapter 61A	53.67
SLEEPY HOLLOW ROAD	Private	Private	Agriculture	None	Chapter 61A	69.13
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	13.53
EAST ROAD	Private	Private	Agriculture	None	Chapter 61A	17.20
LENOX ROAD	Private	Private	Agriculture	None	Chapter 61A	7.82
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	32.91
YOKUN ROAD	Private	Private	Agriculture	None	Chapter 61A	10.23
YOKUN ROAD	Private	Private	Agriculture	None	Chapter 61A	41.55
FURNACE ROAD	Private	Private	Agriculture	None	Chapter 61A	89.71
CANAAN ROAD	Private	Private	Agriculture	None	Chapter 61A	6.70
SLEEPY HOLLOW ROAD	Private	Private	Agriculture	None	Chapter 61A	38.15
ROSSITER ROAD	Private	Private	Agriculture	None	Chapter 61A	106.80
WEST ROAD	Private	Private	Agriculture	None	Chapter 61A	4.43
WEST ROAD	Private	Private	Agriculture	None	Chapter 61A	8.96
EAST ROAD	Private	Private	Agriculture	None	Chapter 61A	49.87
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	67.34
CEMETERY ROAD	Private	Private	Agriculture	None	Chapter 61A	17.97
DUBLIN ROAD	Private	Private	Agriculture	None	Chapter 61A	35.73
WEST ROAD	Private	Private	Agriculture	None	Chapter 61A	4.85
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	22.34
SUMMIT ROAD	Private	Private	Agriculture	None	Chapter 61A	15.50
SUMMIT ROAD	Private	Private	Agriculture	None	Chapter 61A	15.40
SWAMP ROAD	Private	Private	Agriculture	None	Chapter 61A	12.98
STATE ROAD	Private	Private	Agriculture	None	Chapter 61A	15.28



Table 5.4 - Conservation and Recreation Lands Owned by the Town of Richmond, MA

Source: Mass. GIS Open Space, 2015

Site Name	Owner	Manager	Current Use	Condition	Public Access	Universal Access	Level of Protection	Recreation Potential	Zoning	Acres
Richmond Consolidated School	Town of Richmond	School	Education	Good	Limited (outside of school hours or functions)	Yes (See ADA Self Evaluation in Appendix C)	Limited	Existing School Playground, Athletic Fields and Tennis court	Residential (RA-A)	29.59
Richmond Town Beach	Town of Richmond	Highway Department	Recreation	Good	Yes	Yes (See ADA Self Evaluation in Appendix C)	Limited	Swimming and Canoe/Kayak Access	Residential (RA-A)	3.30
Conservation Area	Town of Richmond	None	Conservation and Recreation	Good	Yes	None (hiking trail)	Permanent	Currently used for hiking, land-locked parcel with no road access	Residential (RA-A)	44.85

SECTION 6: COMMUNITY VISION

6A DESCRIPTION OF PROCESS

In order to determine the town of Richmond's Open Space and Recreation values and develop goals and objectives, a robust public process was utilized. This process began with meetings of the Richmond Open Space Advisory Committee (OSAC). Early in the committee meetings, a public survey was developed. The public survey was available online, through the website Survey-monkey.com, and as hardcopies available in Town Hall. The public survey asked broad questions related to open space, recreation, the possible purchase or preservation of Camp Marion White and also gathered basic demographic information about respondents. The survey was available from April 24th to June 15th, 2015. Overall, there were 113 total responses to the survey, with about 5% of year-round residents (79 out of 1,475) responding. Second homeowners, seasonal residents and non-residents comprised 22 out of the 113 responses. The remaining 12 respondents could not be identified as they did not answer questions related to demographics. Overall, the survey revealed support for open space protection within the town, as well as support for the purchase or preservation of Camp Marion White. Additionally, to help draft the OSRP, BRPC conducted stakeholder interviews with several groups including the Richmond Pond Association and Richmond Recreation Committee, and attended several meetings of the Camp Marion White Working Group.

The first Open Space public forum was held on June 16th, 2015 at Town Hall. This public forum was an open discussion about the town's needs for open space and recreation. The public forum was attended by approximately 20 residents and other interested individuals. Basic information about OSRP development and its requirements, as well as results from the public survey were pre-



COMMUNITY VISION AT A GLANCE

Public Process

Development of this Open Space and Recreation Plan included a rich public process. A public survey was available from April 24th to June 15th, 2015. Overall, there were 113 total responses to the survey, with about 5% of year-round residents responding. Two public forums were also held to gain public input on the OSRP. The Richmond Open Space Advisory Committee met six times from April to August, 2015. Finally, a number of stakeholder interviews were conducted.

Open Space and Recreation Vision

The Town of Richmond is a rural, tranquil, and family-friendly hamlet in the Central Berkshire Region of Massachusetts that carefully stewards its treasured open spaces and maintains rich cultural, recreational, and scenic resources that collectively foster a strong sense of place and community vitality that benefits its residents and visitors.



sented to forum attendees and participants. After this presentation, participants were asked to describe the town's needs for open space and recreation and how these two aspects of the town could be improved. The overall goal of the public forum was to expand upon the data gathered as part of basic research for the OSRP and the information obtained from the public survey. Richmond residents and other forum participants shared their ideas and opinions at the forum and these were incorporated into the final goals, objectives, and actions for the creation of this OSRP. The forum identified several needs and possible OSRP goals within the town, including the possibility of contacting private landowners to see if public access would be allowed or considered. Forum participants also discussed the possibility of better utilizing town roads for recreation. Additionally, forum participants noted the importance of preserving the town's ridgelines and agricultural lands and the need for enhanced outreach and communication about land protection options and Richmond's existing recreation opportunities. Each one of these elements mentioned was integrated into the goals, objectives and action items for the OSRP. See Figure 6.1 for notes taken during the first public forum.

A second and final public forum was held on September 17th, 2015. The intent of this public forum was to review the draft plan and its goals and objectives with the public. A short presentation summarizing the draft plan and the work of the Richmond OSAC was followed by a prioritization activity in which forum participants were given three blue sticker "dots" to indicate the goals and objectives of the action plan they felt were most important. Participants were also asked to leave general comments about the draft plan and provide contact information if they wished to participate in future open space and recreation projects.

Based on the prioritization activity, several "clusters" of stickers around aspects of the plan

emerged. Thirteen stickers were placed on objectives and action items related to the possible purchase of Camp Marion White, more than any other selected by forum participants. Eleven stickers were placed on the objective and action items under protecting and managing Richmond Pond, with five of the eleven stickers indicating the importance of action item related to reestablishing the historic "Indian trail" around the shoreline of the pond. Eight stickers were placed on the objective and action items related to protecting an additional 1000 acres of land in Richmond. Additionally, eight stickers were placed on the objective and action items relating to the possible adoption of the Community Preservation Act (see Figure 6.2).

6A STATEMENT OF OPEN SPACE AND RECREATION GOALS

The following vision statement was developed by the Richmond Open Space Advisory Committee:

The Town of Richmond is a rural, tranquil, and family-friendly hamlet in the Central Berkshire Region of Massachusetts that carefully stewards its treasured open spaces and maintains rich cultural, recreational, and scenic resources that collectively foster a strong sense of place and community vitality that benefits its residents and visitors.

Open Space and Recreation Goals:

1. Water resources in Richmond are protected.
2. Natural resources in Richmond are protected
3. Residents and visitors are aware of Richmond's open space and cultural resources and recreational opportunities.
4. The town's recreation opportunities meet community needs.
5. Funding for conservation and recreation projects meets community needs.
6. Ensure implementation of the Richmond Open Space and Recreation Plan.

- How to improve rec areas
- Fishing pier (HA) on Richmond Pond
 - Make gravel roads more walkable / pedestrian-friendly
 - * Finer grain gravel
 - * Gravel over coarse stone in spring
 - Formal trailhead w/ parking @ top of Osceola Rd
 - Parking improvements @ CMW to accommodate greater public use (if purchased by town)
 - Trail head access for PP @ Center Cemetery
 - Installing "Pullouts" for ^{Scenic} areas that lend themselves to painting / photo.
 - (Similar to what Richmond-West Stock Artists Guild)
 - Rec' trail potential on land being hayed by farmers on East Rd (i.e. Michael Lynch)
 - Cont'd / expanded aquatic weed mgt. @ Richmond Pond
- Working out arrangements w/ B/G Club to enable greater public use of Camp Russell during off-season*

- How to protect OS
- Enhanced education / training pertaining to land protection options
 - * Chapter 61 A/B
 - * Cons. Restrictions
 - Speed / Motorcraft controls on Richmond Pond
 - Maintenance / repair of the dam mgd by Lakeside
 - Town should push State to take more responsibility for maintenance
 - Tools to promote rec.
 - Enhanced outreach / communication to make residents / visitors more aware of rec programs and opportunities (i.e. rec programs @ School)
 - Town Website
 - " Newsletter

- How to protect OS
- Keeping ag land actively in ag
 - Keeping ridgelines open / protected for habitat and recreation
- " " (REC)

Figure 6.1—Images of notes taken during the first public forum.



Figure 6.2—Images of the draft 7-year action plan that was used in a prioritization activity during the second public forum. Forum participants were asked to mark with a blue dot the most important goals, objectives, and action items for the town to complete.

SECTION 7: ANALYSIS OF NEEDS

7A SUMMARY OF RESOURCE PROTECTION NEEDS

Richmond residents place significant value on the rural character of the town and its natural resources, particularly its water resources and wildlife habitat. Based on the 2015 Richmond Open Space and Recreation Survey, the top five types of open space that were most important to protect include:

- Lakes, Ponds, and Rivers (92%)
- Wildlife Habitat (90%)
- Forests (89%)
- Waterfront areas with public access (89%)
- Open Space for Recreation (88%)

Additionally, 88% of survey respondents felt that there was a need to preserve additional open space areas within the town.

When asked what the biggest threat to open space protection within the town was, 66% of survey respondents answered with a response that included some form of “development” or specifically “residential development”. As discussed in Section 3: Community Setting, residential development can fragment habitat and contiguous natural areas as well as be a source of sediment and pollutant run off. While development within Richmond has slowed in recent years, future development levels are unknown. Any significant resource protection efforts in Richmond will need to be developed and implemented through strong cooperation with and outreach to local residential landowners, as the majority of the town is comprised of privately owned residential land.

Richmond has extensive wildlife habitat areas, priority natural communities, priority



ANALYSIS OF CONSERVATION AND RECREATION NEEDS AT A GLANCE

Resource Protection Needs

Richmond residents value the town’s rural character and its natural resources. The town can take additional steps to help protect these attributes.

Richmond Pond

Richmond Pond is an important recreation and natural resource in the town. There is an ongoing need to continue management of this resource.

Community Needs

There is a comprehensive need to promote the town’s existing recreation resources, particularly underutilized areas.



conservation areas, water resources, and potential vernal pool locations. The Nordeen Marsh and Fairfield Brook NHAs help to permanently protect many of these sensitive environmental areas. However, much is held privately. If the town wishes to help protect these areas further, it should continue its ongoing work supporting local and regional land trusts in their conservation efforts. Additionally, the town could pursue outreach and education efforts with landowners to inform them of the ecological significance of their land. This could take the form of a mailing, a public forum, or an information session. For reference, a list of parcels containing endangered species habitat, priority conservation area land, and BioMap2 core habitat has been included in Appendix B.

Additionally, the town could help to educate landowners on best management practices for their properties. A significant amount of land within Richmond is currently enrolled in Chapter 61. This tax reduction program requires that landowners adopt a forest management plan for their property. The town could work with landowners enrolled in Chapter 61 to help them integrate wildlife habitat preservation, riparian buffers, wetland protection, and other similar goals into these forest management plans. This could help interested Richmond property owners to steward their lands ecologically while meeting their own timber harvest goals.

Other Berkshire communities have taken steps to certify potential vernal pools located within their towns, giving added protections to these ecologically important areas. The Berkshire Environmental Action Team is a non-profit group located in Pittsfield that has been involved in this work. The town could partner with this group to help train volunteers and conduct vernal pools assessments as part of an event held in the spring, when vernal pools are likely to be full of water as

well as animal life. The town should also contact landowners with potential vernal pools on their properties to see if they would be interested in having them evaluated. A list of parcels within Richmond with potential vernal pool locations can be found in Appendix B.

Need for Comprehensive Management of Richmond Pond

Richmond pond is a critical natural and recreational resource for the town of Richmond. Richmond Pond is the town's largest body of water, and home to the Richmond town beach. The pond is publicly accessible to canoes, kayaks, and motor boats through the nearby state boat launch. Richmond Pond has also attracted significant residential development since the town first became a seasonal and summer destination beginning in the early part of the 20th century. Beyond the pond's recreational use and the development pressure that has been placed on it, it is home to special concern species such as the Bridle Shiner.

Richmond Pond's split jurisdiction between two municipalities makes coordination on management issues difficult. The fact that the pond's water level is controlled by a dam adds another layer of complication. Without this dam, there would be no access to the water from the town beach, boat launch and Richmond Shores neighborhood, only a mud flat would remain. The dam is also owned by the Lakeside Christian Camp, a religious organization that both Richmond and Pittsfield cannot directly donate to. The Richmond Pond association, a non-profit group, has helped to address many issues along the pond, and act as an advocate for and forum for many issues including noise, light pollution and water quality. Additionally, the Town of Richmond has contributed significantly toward management of the pond through the funding of

boat ramp monitors and the development and implementation of an aquatic vegetation management plan.

It is recommended that the town continue its work to manage Richmond Pond, including its funding and implementation of the Aquatic Vegetation Management Plan and the boat ramp monitor program. Additionally, the town should continue and strengthen its partnership with the Richmond Pond Association and continue to invest in this natural resource and important town recreation area. In addition to its other efforts, the Richmond Pond Association can continue to take the lead on other issues regarding the pond, including promoting a greater sense of community, safety, and mutual respect between user groups and residents around the pond as a commonly held resource. Moreover, both the town and the Richmond Pond Association should work to seek additional funding, technical assistance or other aid from state agencies and to continue ongoing cooperation with the City of Pittsfield.

7B SUMMARY OF COMMUNITY'S NEEDS

Need for Greater Promotion and Utilization of Existing Open Space and Recreational Resources

Richmond contains three state-owned properties which total several hundred acres of land within the town. The public survey and public forum identified that these areas are seldom used by Richmond residents, if at all.

Two of these properties, Nordeen Marsh NHA and Fairfield Brook NHA are conserved primarily for their ecological and habitat value. Additionally, these areas are mostly wetland, making access difficult and limited.

However, the area of Pittsfield State Forest located within Richmond is an upland site and managed primarily as a woodlot by the State. The need for additional hiking and walking trails within Richmond was identified in the public survey and was supported by 90% of survey respondents (more than any other potential improvement listed in the survey). This area of Pittsfield State Forest could possibly be used for recreation, particularly trail creation. As this area is owned and managed by the commonwealth, a considerable effort would be needed to secure this area as a piece of publicly accessible recreational infrastructure. However, given the fact that the vast majority of Richmond's land is privately owned, this parcel does represent a "low hanging fruit" which could add a potentially valuable trail to the town's existing recreation areas. It is recommended that the town work with the state to begin examining the possibility of developing a recreational trail on this site. This process could be lengthy, and depending on the Commonwealth's goals for the property, might not be feasible. However, it should be explored nonetheless.

Furthermore, as hiking and walking trails were the most supported potential recreation improvement in the survey (90% of respondents), and the town contains trails along Yokun Ridge, Hollow Fields Reserve, Steven's Glen and at other locations, the town could take steps to better promote these existing resources. Over 20% of survey respondents indicated that they had never used Hollow Fields Reserve or North and South Yokun Ridge for recreation. Additionally, 10% of survey respondents reported that they had never heard of these areas.

Moreover, the public survey and forum identified that the many existing recreation areas,



particularly the Richmond Consolidated School's gymnasium, athletic fields and playground were some of the least used recreation areas within the town. Perhaps this is due to the fact the Richmond residents are increasingly older, and no longer have a reason to visit areas like the playground (as they most likely do not have young children). Perhaps this is due to a lack of knowledge that these areas are publicly accessible (outside of school operating hours).

The town could become its own recreation advocate by actively promoting its recreational resources through the town website or through its weekly email newsletter. Additionally, the town could organize and host an annual event to help promote its existing recreation areas. Such an event might include a tour of existing recreation areas with a "stamp book" or "passport" that is checked off at each area and qualifies participants for a prize. Other municipalities have organized geocaching events with hidden items or logbooks used in a "treasure hunt" type event that could promote various areas around town.

Need for Greater Management of Roads as Recreation Areas

Town roadways, particularly low traffic, unpaved roadways were identified early in the OSRP development process as popular recreation areas. The results of the public survey found that 67% of survey respondents used East Road for recreation at least once a year. Additionally, 55% of survey respondents reported using Richmond Shores Road / Boys' Club Road at least once a year for recreation. Both of these roads have informal vehicle pull-off areas where people park to use these roads for recreation, indicating that these areas are used by more than just the residents that live along them.

There are a number of actions the town could take to promote and better utilize its roads for recreation. However, care must be taken to not disturb the scenic and rural character of these roadways and to achieve consensus for any recreation activities with residents who live in these areas.

Walking loops are simple recreational features that are currently being examined by several Berkshire County communities and have already been implemented by North Adams and Pittsfield. Walking loops consist of measured and marked walking paths along quiet and relatively flat areas of roadway. It should be noted that the term "walking loops" is used as a catchall phrase for identified walking paths and areas on public roadways or in public parks. These may be true "loops" where the walking path returns to a starting point without ever crossing back on itself, or individual roads and other areas identified in town that are ideal for walking. Walking loops are intended to be accessible to people of a wide range of ages and abilities, and make an ideal walking location for senior citizens and disabled residents who may not be able to access local hiking trails. In the public survey, walking loops on public roads were supported by 79% of respondents.

Walking loops could be an important part of the town's recreation infrastructure. The town's unpaved roadways are a recreation area accessible from the front door of most town residents', and provide a space for walking, running, or even horseback riding. Additionally, mountain bikers sometimes use these unpaved roadways instead of local trails.

Due to the fact that they are already widely used for recreation, East Road and Richmond Shores Road / Boys' Club Road would make ideal

locations for walking loops. Walking loops along these roads should ideally include a few simple and minimal signs identifying the start and end of the walking loop, and intermediate signs noting significant distances. Signs should ideally note distance along the loop moving in both directions. Additionally, these walking loops should be promoted through the town website and other communications. BRPC was involved in two healthy community design related projects during the spring and summer of 2015. BRPC was able to provide initial conceptual mapping of walking loops along the roads mentioned above. These maps have been included in Appendix E.

Need for Greater Advocacy for Seniors and Older Richmond Residents

During the second public forum, a participant asked if an advocate for recreation by senior citizens was included on the town committee that developed the OSRP. While no specific advocate was included on committee, the recreation needs of senior citizens and the changing demographics of the town were discussed. This led to the development of specific action items to improve universal accessibility at existing and future recreation areas and where possible, to integrate recreation options for older residents into town recreation areas. Another action item of the plan (under goal 6) recommends that the town establish a committee to help with the implementation of this OSRP. If and when a committee is established, the town should ensure that at least one committee member be a member of the Richmond Council on Aging, or a strong advocate for the recreation needs of the town's older residents.

The Richmond OSRP and the Statewide Comprehensive Outdoor Recreation Plan (SCORP)

The Massachusetts SCORP is a broad and far-reaching examination of recreation needs across

the state of Massachusetts. There are many similarities between the goals, objectives and identified needs of the SCORP and of the Richmond OSRP.

Seventy percent or greater of Richmond open space survey respondents indicated support for additional hiking / walking trails, bike lanes, swimming areas or access, a canoe or kayak launch, and walking loops along public roadways. This reflects their activities of choice, which are walking, hiking, swimming, and canoeing/kayaking. It also reflects the demographics of the town, which has a relatively high percentage of older adults.

These recreation needs and desires are consistent with the survey results provided by residents and recreational land managers from across the state during the development of the SCORP. The first two goals the SCORP are to increase the availability of all types of trails and increase water based recreation.

7C MANAGEMENT NEEDS, POTENTIAL CHANGE OF USE

Camp Marion White

The pending sale of Camp Marion White is an enormous opportunity to create a multi-use publicly accessible recreation area on Richmond Pond. While the Richmond Town Beach provides and opportunity to the public for swimming, fishing, or picnicking, the purchase or preservation of the camp property would greatly expand the range and potential recreation options for town residents and surrounding communities. Additionally, preservation of the camp as a recreation area would protect over 1300 feet of shoreline and 50 acres of land within the town from future development. The purchase or



preservation of Camp Marion White was supported by over 90% of survey respondents, and was also selected as an important item for the town to pursue during the 2nd open space public forum in September 2015.

If the town is able to purchase or preserve the camp, it should establish a committee focused on this area. The nearby Town of Lenox has a similar committee focused on Kennedy Park, one of its largest and most popular recreation areas. This committee could be composed of members of the existing CMWWG or other interested individuals. Moreover, if purchased, the town should create a master plan and management plan for the property.

Funding for Conservation and Recreation Projects

While the completion of this OSRP will allow the town to compete in grant programs through the state, additional funding for conservation and recreation projects could come through the adoption of the Community Preservation Act (CPA). Adoption of the CPA was supported by 65% of public survey respondents, and was selected as a important item for the town to pursue by participants of the 2nd open space public forum in September 2015. If adopted, the CPA is a surcharge of 1-3% on existing property taxes that can be used to fund projects related to open space and recreation, community housing and historic preservation. Towns must establish a Community Preservation Committee (CPC), which evaluates potential projects for eligibility. To date, roughly 45% of Massachusetts towns have adopted the CPA. Adoption of the CPA could also help the town to meet other goals it has identified, including its recent work with housing, and its efforts to meet the state's 10% housing affordability standards. Moreover, the CPA would provide funding for historic preservation related

projects which could help to maintain the town's rural and scenic character.

If the town wishes to pursue the CPA, the issue should be discussed by the town's planning board, and the town should hold a public forum or information session about the CPA before bringing it to vote at town meeting.

SECTION 8: GOALS AND OBJECTIVES

These Open Space and Recreation goals, objectives, and actions items were compiled from the work of the Richmond Open Space Advisory Committee, the 2015 Open Space and Recreation Survey, the June 16th, 2015 public forum, and the analysis of the data contained in earlier sections of this OSRP.

GOAL 1: WATER RESOURCES IN RICHMOND ARE PROTECTED

- Maintain drinking water quality and work to reduce non-point source pollution.
- Protect and manage Richmond Pond as an important natural and recreation resource.

GOAL 2: NATURAL RESOURCES IN RICHMOND ARE PROTECTED

- Protect an additional 1000 acres of unprotected land (roughly doubling protected land in the town).
- Certify or evaluate at least 50% of the town's uncertified vernal pools.
- Minimize environmental impacts from existing and future development.
- Protect Ridgelines.

GOAL 3: RESIDENTS AND VISITORS ARE AWARE OF RICHMOND'S OPEN SPACE AND CULTURAL RESOURCES AND RECREATIONAL OPPORTUNITIES

- Promote existing open space and recreation opportunities.
- Promote the town's historic resources.

GOAL 4: THE TOWN'S RECREATION OPPORTUNITIES MEET COMMUNITY NEEDS



RICHMOND OPEN SPACE GOALS AND OBJECTIVES AT A GLANCE

Goal 1: Water Resources in Richmond are Protected

Goal 2: Natural Resources in Richmond are Protected

Goal 3: Residents and Visitors are Aware of Richmond's Open Space and Cultural Resources and Recreational Opportunities

Goal 4: The Town's Recreation Opportunities Meet Community Needs

Goal 5: Funding for Conservation and Recreation Projects Meets Community Needs

Goal 6: Ensure Implementation of the Richmond Open space and Recreation Plan



- **Improve existing recreational opportunities.**
- **Maintain high quality recreation programming and events.**
- **Permanently protect all town owned recreation lands from future development.**
- **Work with public and private landowners to expand public recreation access.**
- **Enhance use of roadways as important recreation spaces.**
- **Purchase or preserve Camp Marion White for use as a publicly accessible recreation area and ecologically valuable natural area.**

GOAL 5: FUNDING FOR CONSERVATION AND RECREATION PROJECTS MEETS COMMUNITY NEEDS

- **Apply for grant opportunities to assist in town conservation and recreation projects.**
- **Investigate adoption of the Community Preservation Act (CPA).**
- **Raise visibility and support for local organizations dedicated to Open Space and Recreation.**

GOAL 6: ENSURE IMPLEMENTATION OF THE RICHMOND OPEN SPACE AND RECREATION PLAN

SECTION 9: 7-YEAR ACTION PLAN

The 7-year action plan lists the specific actions that are needed to implement the goals and objectives described in sections 6 and 8. For a visualization of the 7-year action plan, please refer to Map 8: Action Plan Map.

GOAL 1: WATER RESOURCES IN RICHMOND ARE PROTECTED			
Maintain drinking water quality and work to reduce non-point source pollution	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Continue to enforce regulations to protect Richmond's drinking water resources as well as those of surrounding towns.	BOH, Con. Com.	General	Ongoing
Work with and educate upland landowners and farmers to adopt best management practices (i.e. vegetative buffers) to reduce non-point source pollutants.	Con. Com.	General	2018-2019
Continue to use alternative de-icing chemicals and methods.	DPW	General	Ongoing
Continue to notify residents about local hazardous waste collection events and locations.	Town Administrator	General	Ongoing
Provide the text of the wetland bylaw on the town website.	Town Administrator, Con. Com.	General	2016-2017
Review the wetland bylaw for potential updates and work to implement changes if identified.	Con. Com.	General	2017-2018
Collaborate with surrounding towns on water resource related projects and issues.	Con. Com, Select Board	General	Ongoing

Protect and manage Richmond Pond as an important recreation and natural resource	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Continue to fund studies and regular testing related to the ecology, water quality, and management of Richmond pond.	Con. Com, Select	Raise and Appropriate	Ongoing
Continue to implement the aquatic vegetation management plan to address Eurasian Milfoil and other invasive species on Richmond Pond.	Con. Com., Select Board, Town Admin.	Raise and Appropriate	Ongoing
Continue to fund the boat ramp monitor program on Richmond Pond.	Select Board	Raise and Appropriate	Ongoing
Continue the yearly drawdown of Richmond Pond as a tool to manage invasive species and assist with downstream flood control.	Con. Com.	General	Ongoing
Work with the City of Pittsfield and the Commonwealth of Massachusetts to secure funding, technical assistance, or other resources to help manage the Richmond Pond Dam.	Select Board, RPA, Town Admin.	General	2018-2019



Continue to collaborate with the Richmond Pond Association and other organizations, residents, and landowners to address management and safety issues related to Richmond Pond.	Select Board, Con. Com., Town Admin.	General	Ongoing
Work with private landowners to reestablish the historic Indian trail and walking path around the shoreline of Richmond Pond.	CMWWG, Select Board, RPA	Possible Rec. Trails Grant	2018-2020
Investigate development of a no-wake zone on Richmond Pond.	RPA	N/A	2017-2018
Investigate development of a motor-boat size restriction on Richmond Pond.	RPA	N/A	2017-2018
Investigate a ban on Jet-skis or other motorized personal watercraft on Richmond Pond.	RPA	N/A	2017-2018
Continue to educate visitors and residents around Richmond Pond about safe boating practices and work to build a culture of respect and safety for all Richmond Pond residents and users.	RPA	N/A	Ongoing

GOAL 2: NATURAL RESOURCES IN RICHMOND ARE PROTECTED			
Protect an additional 1000 acres of unprotected land (roughly doubling protected land in the town)	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Continue to enforce regulations to protect the town's sensitive ecosystems and wildlife habitats.	Con. Com.	General	Ongoing
Continue to collaborate with local land trusts, landowners, and surrounding towns on potential land acquisition and other projects related to conservation or recreation.	RLT, BNRC, Town Admin., Select Board, Con. Com.	General	Ongoing
Prioritize conservation and recreation projects related to endangered species habitats and state listed priority conservation areas as well as agricultural lands and early successional forests.	Select Board, Con. Com.	Possible LAND Grant or Land and Water Conservation Fund	Ongoing
Contact landowners with unprotected land containing priority conservation areas, priority natural communities or core habitat with a letter outlining the significance of their property.	Con. Com., Assessor	General	2017-2020
Hold a public forum or open house to educate residents about available land conservation programs and incentives.	Con. Com., RLT, BNRC	General	2018-2019
Hold a public forum or open house to educate residents (particularly Chapter 61 landowners) about integrating ecological goals into their forest management plans.	Con. Com.	General	2019-2020

Certify or evaluate at least 14 (50%) of the town's uncertified vernal pools	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Develop a list of landowners with uncertified vernal pools on their property, and contact them about certifying vernal pools on their property.	Con. Com., Rec. Com., Assessor	General	2017-2018
Recruit and educate volunteers to hold a vernal pool certification event.	Con. Com., Rec. Committee, Vol.	General	2018-2019
Work with the Berkshire Environmental Action Team (BEAT), volunteers, and willing landowners to certify uncertified vernal pools.	Con. Com., Rec. Committee. Vol.	General	2018-2019

Minimize environmental impacts from existing and future development	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Adopt Best Management Practices (BMPs) for the maintenance of unpaved roadways to minimize non-point source pollution from these areas.	DPW, Con. Com.	General	2017-2019
Examine development of an Open Space Residential Design (Cluster Development) by-law and hold a public forum on possible adoption thereof.	Affordable Housing Committee	General	2019-2020
Vote to adopt an Open Space Residential Design by-law at town meeting.	Affordable Housing Committee, Town Meeting	General	2019-2020

Protect Ridgelines	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Continue to enforce existing zoning regulations and the Scenic Mountain Act to protect lands along the Yokun Ridge and the Taconic Ridgeline.	Con. Com., Select Board	General	Ongoing
Work with conservation groups to support conservation and recreation projects related to Yokun Ridge and the Taconic Ridgeline.	Con. Com., Select Board, RLT, BNRC	General	Ongoing

GOAL 3: RESIDENTS AND VISITORS ARE AWARE OF RICHMOND'S OPEN SPACE AND CULTURAL RESOURCES AND RECREATIONAL OPPORTUNITIES

Promote existing open space and recreation opportunities.	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Create a section of the town website and newsletter dedicated to promoting the town's recreation areas and events, scenic areas, and natural resources.	Select Board, Town Admin.	General	2017-2019
Organize a geocaching event, "passport tour", or similar event to promote the town's existing recreation areas. Coordinate this event with relevant landowners, land trusts, or other conservation groups.	Recreation Committee, Con. Com., Vol., Res.	General	2019-2020

Promote the town's historic resources.	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Create a section of the town website and newsletter dedicated to promoting the town's historic resources.	Select Board, Town Admin.	General	2016-2017



Organize a tour of the town's historic buildings and areas.	Historical Commission	General	2017-2018
Install signage to mark the boundaries of the Richmond Furnace Historical and Archaeological District and at other historic locations as identified. Ensure signage is minimal, discrete, tasteful, and developed to meet existing historic guidelines.	Historical Commission	Raise and Appropriate	2018-2019

GOAL 4: RICHMOND'S RECREATION OPPORTUNITIES MEET COMMUNITY NEEDS

Improve existing recreational opportunities	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Implement improvements to the town beach as necessary to support swimming, fishing, picnicking, and universal accessibility.	Con. Com., Select Board	Raise and appropriate, Possible PARC Grant	2017-2019
Upgrade and improve existing playground equipment and athletic fields at the Richmond Consolidated School to meet town needs, improve access, and improve safety.	School Committee, Select Board	Raise and appropriate, Possible PARC Grant	2019, 2022
Upgrade and improve the existing town tennis courts to meet town needs and improve accessibility.	Rec. Committee	Raise and appropriate, Possible PARC Grant	2018-2019
Where possible, expand recreation opportunities for the town's children and families.	Rec. Committee	Raise and appropriate, Possible PARC Grant	Ongoing
Where possible, expand recreation opportunities for the town's older residents and senior citizens.	COA, Rec. Committee	Raise and appropriate, Possible PARC Grant	Ongoing
Improve ADA and handicap accessibility at existing town recreation areas. Make ADA accessibility a priority in future recreation projects. Promote town ADA improvements.	COA, Rec. Committee	Raise and appropriate, Possible PARC Grant	Ongoing
Identify a possible location for a community garden on public or private land and form a community garden club.	Agricultural Commission	General	2017-2018

Enhance use of roadways as important recreation spaces	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Create and install signage to mark walking loops on East Road, Richmond Shores/Boys' Club Road, and other town roadways as identified. Ensure signage is minimal and discrete.	Recreation Committee, DPW	Raise and Appropriate	2018-2019
Promote walking loops through town communications and the website.	Town Admin.	General	2018-2019
Examine the need and feasibility of pull-off parking along roads used for recreation.	DPW	General	2019-2020
Communicate with MassDOT to ensure that pedestrian and cycling improvements are included in future projects along state-owned roadways such as Routes 41 and 295.	Select Board, DPW	General	2018-2019
Collaborate with the Richmond/ West Stockbridge Artist's Guild to create areas near scenic views for photography and painting.	Town Admin.	General	2017-2018

Work with public and private landowners to expand public recreation access	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Locate existing informal trails and trailheads and work with landowners to secure public access through easements, agreements, memoranda of understanding, etc.	Con. Com., Rec. Committee, RLT	General	2019-2021
Work to educate landowners currently enrolled in Chapter 61 programs about Chapter 61B outdoor recreation incentives.	Rec. Comm., Assessor	General	2020-2021
Contact landowners enrolled in Chapter 61 about possible trail creation. Implement trail projects if feasible	Rec. Comm., Assessor	General, Possible Rec. Trails Grant	2020-2021
Contact Camp Russell and Lakeside Christian Camp about formalizing or enabling public access.	Select Board, Rec. Committee	General	2019-2020
Contact DCR about possible recreation access on the portion of Pittsfield State forest along Dean Hill Road in the southwest corner of town. If feasible, work to identify and implement projects in this area.	Select Board, Con. Com.	Possible Rec. Trails Grant	2017-2018
Collaborate with surrounding communities to improve public access to lakes, ponds, and reservoirs.	Con. Com, Town Admin.	General	2018-2019

Purchase or preserve Camp Marion White for use as a publicly accessible recreation area and ecologically valuable natural area	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Hold a public forum about the possible use of the property as a public recreation area.	Town Admin. CMWWG	General	2016
Raise funds for the possible purchase or preservation of the Camp. Raise funds for future recreation or conservation projects should the camp be purchased by the town.	CMWWG, Select Board, RLT	Donations	2016
Vote to fund the purchase or preservation of all or a portion of Camp Marion White.	Select Board, Town Meeting	Raise and Appropriate	2016
If the property is to be purchased or preserved for use as a public recreation area, form a public committee to guide its use as a community asset.	Select Board	General	2016-2017
Develop a master plan and management plan for the property. Ensure the master plan assesses the potential future uses of existing buildings.	Rec. Comm., Select Board, CMWWG	Raise and Appropriate	2016-2017
Implement projects to ensure universal access for people of all ages and abilities to the Camp Marion White property and its facilities. Invest in other basic infrastructure such as signage and wayfinding.	Rec. Comm., Select Board, CMWWG	Possible PARC grant	2017-2019
Create multi-use fields.	Rec. Comm., Select Board, CMWWG	Possible PARC grant	2021-2022
Restore the interpretive trail near the wetland east of Swamp Road.	Rec. Comm., Select Board, CMWWG	Possible PARC grant	2018-2019
Create a Canoe and Kayak launch. Develop storage for canoes and kayaks.	Rec. Comm., Select Board, CMWWG	Possible PARC grant	2019-2020



Create hiking and walking trails. Connect trails on the site to existing trail networks.	Rec. Comm., Select Board, CMMWG	Possible PARC grant, Possible Rec. Trails grant	2018-2019
Repair existing buildings and structures. Remove damaged and hazardous structures.	Rec. Comm., Select Board, CMWWG	Possible PARC grant	2017-2018
Develop areas for parking.	Rec. Comm., Select Board, CMWWG	Possible PARC grant	2018-2019
Bury existing overhead utility lines on the property to meet state PARC Grant eligibility requirements.	Rec. Comm., Select Board, CMWWG	Raise and Appropriate, Possible PARC grant	2016-2017

Maintain high quality recreation programming and events	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Continue to offer recreational programming and events through the work of the Richmond Recreation Committee.	Rec. Committee	General	Ongoing
Work to expand or improve recreation programs offered through the Richmond Recreation Committee by recruiting volunteers and replacing or purchasing equipment as necessary.	Rec. Committee	General, Raise and appropriate as necessary	Ongoing

Permanently protect all town owned recreation lands from future development	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Permanently protect existing recreation areas such as the town beach, Tennis Courts, and Richmond Consolidated School playground under Mass. General Law Chapter 45.	Select Board	General	2019-2020
Ensure future town owned recreation areas are protected through conservation restrictions or MGL Chapter 45.	Select Board	General	Ongoing

GOAL 5: FUNDING FOR CONSERVATION AND RECREATION PROJECTS MEETS COMMUNITY NEEDS

Apply for grant opportunities to assist in town conservation and recreation projects.	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Research additional grant opportunities to help fund open space and recreation projects in town, such as the Urban and Community Forestry Challenge grants and	Town Admin., Con. Com., Select Board	General	2017-2018
Apply to the DCS PARC, LAND, and other grant programs to help fund town open space and recreation projects.	Town Admin., Con. Com., Select Board	Grants	Ongoing

Investigate adoption of the Community Preservation Act (CPA)	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Hold a public forum about the potential adoption of the Community Preservation Act.	Planning Board	General	2018-2019
Vote to adopt the Community Preservation Act at town meeting.	Town Meeting	General	2019-2020

Establish a sustaining conservation and recreation Fund	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Investigate development of a sustaining conservation fund through donations and other sources.	Select Board, Town Admin.	Possible Donations	2019-2020

Raise visibility and support for local organizations dedicated to open space and recreation, historic preservation, and related activities	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Promote local organizations and their activities through town communications and the town website.	Town Admin.	General	Ongoing
Support and encourage local organizations related to open space and recreation to host and be a part of events in Richmond.	Town Admin, Select Board	General	Ongoing

GOAL 6: ENSURE IMPLEMENTATION OF THE RICHMOND OPEN SPACE AND RECREATION PLAN			
	Suggested Leadership	Anticipated Funding	Anticipated Schedule (2016-2022)
Establish an OSRP implementation committee or advocate that will regularly review the OSRP and ongoing work to meet its goals. Ensure that the needs of Richmond's older residents are represented during implementation.	Select Board	General	2016-2017
Ensure manpower and resources are dedicated to meeting the goals of this plan.	Select Board, Town Admin.	General, Raise and Appropriate, Grants	Ongoing
Create a section of the town website dedicated to the OSRP and that tracks progress on its goals and objectives.	Select Board, Town Admin.	General	2016-2017
Develop a list of potential volunteers to help implement the projects to meet the goals of this plan.	Implementation Committee/ Advocate	General	2016-2017
Review accomplishments and begin OSRP update	Implementation Committee/ Advocate	General	2022



List of Abbreviations:

Town Admin.—Town Administrator

BOH—Board of Health

BNRC—Berkshire Natural Resources Council

Con. Com.—Conservation Commission

COA—Council on Aging

CMWWG—Camp Marion White Working Group

DPW—Department of Public Works

Rec. Comm.—Recreation Committee

RLT—Richmond Land Trust

RPA—Richmond Pond Association

Vol.—Volunteers

Res.—Residents

SECTION 10: PUBLIC COMMENTS



Charles D. Baker
GOVERNOR

Karyn E. Polito
LIEUTENANT GOVERNOR

Matthew A. Beaton
SECRETARY

The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Tel: (617) 626-1000
Fax: (617) 626-1181

December 29, 2015

Eammon Coughlin
Berkshire Regional Planning Commission
1 Fenn Street, Suite 201
Pittsfield, MA 01201

Re: Open Space and Recreation Plan

Dear Mr. Coughlin:

Thank you for submitting Richmond's Open Space and Recreation Plan to this office for review for compliance with the current Open Space and Recreation Plan Requirements. I am pleased to write that the plan is approved. This final approval will allow Richmond to participate in DCS grant rounds through November 2022.

Congratulations on a great job. Please call me at (617) 626-1171 if you have any questions or concerns about the plan.

Sincerely,

A handwritten signature in cursive script that reads "Melissa Cryan".

Melissa Cryan
Grant Programs Supervisor

cc: Matthew Kerwood, Town of Richmond



TOWN OF RICHMOND

Town Hall

1529 State Road

Richmond, Massachusetts 01254

Main Office: (413) 698-3355

Fax: (413) 698-3272

October 19, 2015

Ms. Melissa Cryan
PARC Administrator
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Ms. Cryan:

This letter is to inform you that on Wednesday, October 14, 2015 the Richmond Board of Selectmen voted to approve the town's initial Open Space and Recreation Plan.

The Board of Selectmen view this plan as formalization of the town's long term commitment to preserving and protecting open space and its support for recreational activities for all its residents. The plan provides a framework in which to guide community leaders over the next years as they work to execute the Plan's Action Plan.

As you are well aware the development of this plan was collaborative effort with extensive public input. This input makes this a true community plan representing the broad spectrum of the community's priorities for land conservation and outdoor recreation. This organic nature of the plan's development was critical in ensuring its future success and the Board of Selectmen is pleased to submit the plan for your approval.

Thank you for your consideration of the Town of Richmond's Open Space and Recreation Plan.

Sincerely,

Marguerite "Jackie" Rawson, Chairman
Richmond Board of Selectmen

TOWN OF RICHMOND
Town Hall
1529 State Road
Richmond, Massachusetts 01254
Main Office: (413) 698-3355
Fax: (413) 698-3272

November 28, 2015

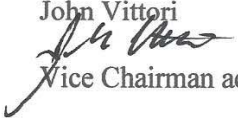
Eammon Coughlin
Berkshire Regional Planning Commission

Dear Eammon,

On October 13, 2015, the Richmond Planning Board voted to approve Richmond's Open Space and Recreation Plan as presented, contingent on three small changes. On October 21, 2015, John Vittori confirmed to the members of the Board that these changes had been duly made. The Board therefore approves the final OSRP.

Sincerely yours,
Katherine Keenum
Clerk, Richmond Planning Board

John Vittori


Vice Chairman acting as Chairman for John Hanson due to his absence.



The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Charles D. Baker
GOVERNOR

Karyn E. Polito
LIEUTENANT GOVERNOR

Matthew A. Beaton
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1181

November 2, 2015

Matthew Kerwood
Town Hall
1529 State Road
Richmond, MA 01254

Re: Open Space and Recreation Plan

Dear Mr. Kerwood:

Thank you for submitting the draft Open Space and Recreation Plan for Richmond to this office for review and compliance with the current Open Space and Recreation Plan Requirements. This plan has been conditionally approved through November 2022. Conditional approval will allow the town to participate in DCS grant rounds through November 2022, and a grant award may be offered to the town. However, no final grant payments will be made until the plan is completed.

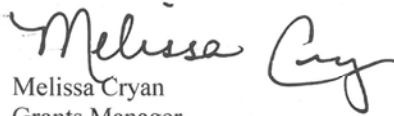
Once the following items are addressed, your plan will receive final approval:

1. Growth and Development Patterns – the Infrastructure section should include information on pedestrian and cycling in the Transportation Systems subsection.
2. Vegetation – sections on the town's public shade trees and rare, threatened, and endangered species must be included.
3. Fisheries and Wildlife – the inventory, information on wildlife corridors, and a section on rare, threatened, and endangered species are missing. Please add them.
4. Scenic Resources and Unique Environments – information on scenic landscapes and unusual geologic features must be included.
5. Environmental Challenges – please include information on hazardous waste sites, landfills, erosion, chronic flooding, and environmental equity. This involves looking at the distribution of open spaces in the town and identifying any areas that are lacking in them.
6. Section 5 – any Conservation Restrictions or Agricultural Preservation Restrictions should be listed, as well as any federal or state land.
7. Analysis of Needs – the Community Needs section must include a section on the SCORP and how it relates to Richmond. It can be found online at <http://www.mass.gov/eea/docs/eea/dcs/scorp-2012-final.pdf>.
8. Seven-Year Action Plan – the goals and objectives should be listed year-by-year with a funding source identified for each.
9. Letters of Review – letters from the regional planning agency, chief municipal officer, and planning board are needed.

10. ADA – the ADA section is missing. More information on this section can be found in Appendix G of the Open Space and Recreation Planner's Workbook, which is online at <http://www.mass.gov/eea/docs/eea/dcs/osrp-workbook08.pdf>.

Congratulations on completing the town's first plan! You and all of your residents should be proud of the work that was done on this very important document. Please contact me at (617) 626-1171 or melissa.cryan@state.ma.us if you have any questions or concerns, and I look forward to reviewing your final plan.

Sincerely,


Melissa Cryan
Grants Manager



BERKSHIRE REGIONAL PLANNING COMMISSION

1 FENN STREET, SUITE 201, PITTSFIELD, MASSACHUSETTS 01201

TELEPHONE (413) 442-1521 · FAX (413) 442-1523

Massachusetts Relay Service: TTY: 771 or 1-800-439-2370

www.berkshireplanning.org

SHEILA IRVIN, Chair
KYLE HANLON, Vice-Chair
MARIE RAFTERY, Clerk
CHARLES P. OGDEN, Treasurer

NATHANIEL W. KARNs, A.I.C.P.
Executive Director

November 24, 2015

Melissa Cryan, Grants Manager
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Dear Ms. Cryan:

The Berkshire Regional Planning Commission (BRPC) has reviewed the draft *Richmond Open Space and Recreation Plan (OSRP)*, the result of the town's first open space planning effort. There are several aspects of the plan that are consistent with the *Sustainable Plan for the Berkshires*, the region-wide plan for Berkshire County. A few of the highlights are listed herein:

- The active pursuit of conserving land on Richmond Pond for the protection of water quality, wildlife habitat and public recreational opportunities. Like many of the recreational lakes in the county, residential development has occurred along much of Richmond Pond's shoreline, reducing vital habitat. Acquiring the property for carefully-sited recreational use is an important step in providing long-term protection of dwindling wildlife habitat.
- Creating and offering for public consideration walking loops to encourage more outdoor participation among families and older residents. Creating passive recreational loops contribute to a healthier lifestyle and can install an appreciation for the town's rural character.
- Calling for certification of vernal pools. These habitats are critical to the long-term survival of particular amphibian species in the region, yet they are afforded little or no protection from development when uncertified. Town residents have a good record of certifying vernal pools and we encourage them to continue to investigate and document them where possible.

As the Open Space and Recreation Plan notes, Richmond is a town with a high percentage of open and forested lands that are in Tax Chapters 61 and 61A and with an unusually high proportion of older residents. These combined factors indicate that the ownership of substantial open space lands may very well be changing hands in the coming decades. The Town of Richmond will have the right of first refusal for Chapter 61 and 61A lands that will no longer be maintained as forest or agricultural uses, so it may be prudent for town officials to begin the process of planning for the potential acquisition of highly prized scenic, natural resource or recreational lands. Reaching out and engaging property owners, possibly about estate planning, could help set the stage for protecting rural landscapes in the coming decades.

We note that the OSRP utilized natural resource GIS data from the Natural Heritage and Endangered Species Program's Housatonic Watershed Priority Conservation Areas, BioMap2 and CAPS. DCR Scenic Landscape areas are also referenced. Incorporating these data sets have resulted in a very informative Unique Features Map of the plan.

The BRPC commends the Town of Richmond for its planning efforts and encourages the town to continue to pursue opportunities to protect the region's scenic character, natural resources and quality of life.

Sincerely,



Nathaniel Karns, AICP
Executive Director



Commonwealth of Massachusetts



Division of Fisheries & Wildlife

Jack Buckley, *Director*

June 23, 2015

Eammon Coughlin, Planner
Berkshire Regional Planning Commission
1 Fenn Street, Suite 201
Pittsfield, MA 01201

Re: Open Space Plan; 15-34371, Town of Richmond

Dear Mr. Coughlin:

Thank you for contacting the Natural Heritage and Endangered Species Program regarding the Open Space and Recreation Plan for the Town of Richmond. Enclosed is information on the rare species, priority natural communities, vernal pools, coldwater fisheries resources, and other aspects of biodiversity that we have documented in Richmond. The town is encouraged to include this letter, species list, appropriate maps, and the BioMap2 Town Report in the Open Space and Recreation Plan.

From a biodiversity conservation perspective, based on the BioMap2 analysis and information discussed below, NHESP recommends land protection in the BioMap2 cores or protecting lands adjacent to existing conservation land – or, best, a combination of both when feasible. All of the areas discussed below are important for biodiversity protection in Richmond.

The list of uncommon aspects of biodiversity included with this letter and the list in BioMap2 differ because this list and discussion include all of the uncommon aspects of biodiversity in Richmond that NHESP has documented and BioMap2 focused on occurrences with state-wide significance and includes non-MESA listed species of conservation interest from the 2005 State Wildlife Action Plan. In addition, the NHESP database is constantly updated and the enclosed list may include species and natural communities of conservation interest identified in town since the data analysis for BioMap2 in 2010.

In early 2013 we sent each town copies of its BioMap2 Town Report that were developed to provide local biodiversity information to assist in conservation efforts at the town or regional level. We encourage inclusion of the town BioMap2 report and fact sheets on its components in the OSRP: the town report is available from <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/land-protection-and-management/biomap2/biomap2-town-reports.html>. The BioMap2 components relevant to Richmond are BioMap2 Core Habitats for Species of Conservation Concern and Exemplary or Priority Natural Communities, and Aquatic, and Wetland Cores, and, in Critical Natural Landscape (CNL), Landscape Blocks and Upland Buffers of Aquatic and Wetland Cores. The components are described in full in the BioMap2 summary report and each description is available as a fact sheet, all available from our website at: <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/land-protection-and-management/biomap2/biomap2-overview-and-summary.html>

Please note that all of NHESP's web addresses changed last year; web addresses in publications from before June 2013, including inside the BioMap2 report, will not work properly.

I encourage you to download species and natural community fact sheets from our website to include in the OSRP with the species list and BioMap2 discussion: there are hot links for the fact sheets in list of species protected by the Massachusetts Endangered Species Act (MESA) <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/species-information-and-conservation/mesa-list/list-of-rare-species-in-massachusetts.html> and for some of the delisted species, watch-list, and species of conservation concern that are not listed in MESA but will be included in the 2015 SWAP: <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/species-information-and-conservation/mesa-list/non-listed-species-of-conservation-interest.html>



Natural Heritage & Endangered Species Program

1 Rabbit Hill Rd, Westborough, MA 01581 Tel: (508) 389-6360 Fax: (508) 389-7890

An Agency of the Department of Fish and Game

<http://www.mass.gov/nhesp>

Natural community fact sheets are available from: <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/natural-communities/natural-community-fact-sheets.html>:

Richmond is one of the towns with town wide maps showing areas forested in the 1830s, which are areas of possible Primary Forest, most of which were untilled woodlots and wooded pastures (areas shown in transparent gray blue on the attached map). Such lands have greater biodiversity than areas that have been tilled. These are not Old Growth as they have been harvested and pastured, but the ground may not have been disturbed. Harvard Forest digitized maps from the 1830s that the Massachusetts legislature mandated that the Towns make. Richmond's map exists and shows areas that were forested in the 1830s, mostly in the western portion of town. NHESP GIS staff took those data and combined them with information from MassGIS' landcover datalayer made from 1999 aerial photos. Although a great deal will have gone on in those areas in the time between the map dates, some areas that were forested in both times won't ever have been tilled. Surveys of the soil structure in the individual sites are necessary to determine whether those sites are Primary Forest. The importance of primary forest is that such sites retain more native biodiversity than sites that have been tilled: soil fauna and flora, microorganisms and plants that reproduce primarily vegetatively contribute to the higher biodiversity. In addition, a variety of species of wildflowers are more common in untilled forests than previously tilled lands. The areas of 1830s forest on private land would be good targets for conservation acquisition to maintain the biodiversity of the town and region. The Harvard Forest website contains information on the 1830s forest datalayer and copies of papers with discussion of the information. (See Harvard Forest. 2002. 1830 Map Project. Harvard Forest Archives, Petersham, MA and B. Hall, G. Motzkin, D. R. Foster, M. Syfert, and J. Burk. 2002. Three hundred years of forest and land-use change in Massachusetts, USA. *Journal of Biogeography* 129: 1319-1135.)

The uncommon birds in Richmond are all associated with the wetlands, streams and ponds in town: both the American Bittern (E) and the Common Moorhen (SC) typically nest in dense cattail beds. The Sedge Wren (E) next in large wet meadows and are sensitive to changes in hydrology and seral succession.

Wood Turtles (SC) spend most of their time in streams and associated uplands: in Richmond they occur along Cone Brook, in areas also identified for other listed species and as a Cold Water Fisheries Resource (CFR) stream (discussed below).

Jefferson Salamanders (SC) breed in vernal pools, but live in the forest floor leaf litter in surrounding uplands for most of their adult lives. They are known in several places in Richmond.

Although there are several CFR streams and rivers in Richmond, only 1 rare fish species has been observed. Bridle Shiners (SC) are small (<2 inches) minnows that are found in schools swimming in and out of vegetation along the edges of open, clear water in lakes and ponds and slack areas of streams and rivers. They feed on small insects and other aquatic animals.

NHESP has data from Richmond for one uncommon invertebrate, the Dion Skipper Butterfly. Dion Skippers (SC) larvae inhabit sedge wetlands. Adult butterflies nectar in nearby upland fields.

In Richmond, many of the thirty-six uncommon plant species are associated with wetlands, specifically, open wet meadows, with grasses, sedges, and other herbaceous species and few shrubs. Foxtail Sedge (T), Creeping Sedge (E), Prairie Sedge (WL), Variegated Horsetail (WL), Slender Cottongrass (T), Labrador Bedstraw (T), Stiff Gentian (WL), Hoary Willow (WL), Autumn Willow (WL), Pendulous Bulrush (WL), Shining Ladies'-tresses (WL) and Arborvitae (E) may be found in open wet meadows with the slightly sweeter soils associated with Richmond's underlying carbonate bedrock. Other uncommon plants are found along the shores of rivers, streams and ponds: the two Spike-sedges (T and WL), Frank's Lovegrass (SC), Water Star-grass (WL), and Knotted Rush (WL). The two pondweeds prefer open, slowly moving water. Mesic rich forests provide habitat to additional uncommon plant species: Hitchcock's Sedge (SC), Glade Fern (WL), Goldie's Fern (WL), Stiff Gentian (WL), Barren Strawberry (SC), and Woodland Millet (T). Only a few uncommon plants are regularly found in upland forests, including Drooping Speargrass (E), Slender Blue-eyed Grass (E), Large-flowered Bellwort (WL) and Kidney-leaf Violet (WL).

Richmond has 11 Certified Vernal Pools (CVPs) and 39 Potential Vernal Pools (PVPs) (identified from aerial photographs, needing verification on the ground). In addition, areas of swamps will often provide habitat for vernal pool species. Visiting and evaluating PVPs for certification would provide more protection to these wetlands and the species that use them as Certified Vernal Pools have additional protection under the Massachusetts Wetlands Protection Act and are considered Outstanding Resource Waters under the Federal Clean Water Act.

The NHESP database has examples of both Priority (uncommon) and Exemplary (excellent examples of more common types) Natural Communities in Richmond. The calcium available from the underlying bedrock creates uncommon conditions in several communities: Calcareous Sloping Fens, Calcareous Seepage



NHESP letter re: Richmond Open Space & Recreation Plan

June 23, 2015

Marsh, Calcareous Rocky Summit/Rock Outcrop Community and Black Ash-Red Maple-Tamarack Calcareous Seepage Swamp.

Calcareous Sloping Fens are open, sedge-dominated wetlands occurring on slight to moderate slopes where there is calcareous groundwater seepage. They tend to be 'hot spots' for uncommon species often containing multiple state-listed species. Calcareous Seepage Marshes are marshy wetlands enriched by calcareous groundwater seepage. Of the three types of calcareous fen communities described in Massachusetts, they are intermediate in richness and botanical rarities. Black Ash-Red Maple-Tamarack Calcareous Seepage Swamps are mixed deciduous-coniferous fairly open swamps occurring in areas where there is calcium-rich groundwater seepage. This nutrient enrichment supports many rare calcium-loving plant species. Finally, the one upland community of note, Calcareous Rocky Summit/Rock Outcrop communities are sparsely vegetated, dry, open communities, usually on steep, mid-slope calcareous ledges in the marble regions of Berkshire County. All of these rare natural communities are considered "Imperiled" as there are so few left in the state.

Flow alteration and urbanization have been associated with stream-ecosystem degradation in flowing waters, as measured through changes in fish and macroinvertebrate communities. A study to determine relations between fish-assemblage characteristics and anthropogenic factors found more species of river fish in streams with little flow alteration or impervious cover than in altered streams, with very few river fish remaining in streams with high rates of water withdrawal or impervious cover. DFW has been sampling streams around the state to establish their degree of suitability for some of the more sensitive fish species, including brook trout. The best streams are called Cold Water Fisheries (CFRs). For streams, protecting existing forested buffers and promoting more where necessary to shade the stream, improving road crossings to restore connectivity and minimizing additional crossings, avoiding rip rap or other stream hardening, and maintaining natural flow regimes are all steps that maintain or improve habitat conditions. Maintaining forest cover around existing high ranked streams, limiting water withdrawal near them, and generally buffering them from the degradations of development protects not only populations of fish and other inhabitants of the streams, but also protects water quality for humans.

More information on locations of CFRs is available from <http://www.mass.gov/eea/agencies/dfg/dfw/wildlife-habitat-conservation/coldwater-fish-resources-list.html>

DFW's Fisheries section has identified environmentally sensitive streams throughout Massachusetts that provide important habitat for native cold water fisheries (CFR, Coldwater Fisheries Resources). Buffers along these streams that maintain shade and filter inflowing sediments are important for maintaining their water – and habitat – quality. Culverts in the streams should be maintained to allow movement of fish, turtles, and other aquatic species. Identification of CFRs is based on fish samples collected by staff biologists and technicians with new streams sampled and evaluated yearly. Richmond has three identified CFRs shown on the enclosed map with vernal pools and natural communities:

Saris/Palis	Waterbody Name	Watershed	Towns
2104150	Lenox Mountain Brook	Housatonic	Richmond
2106200	Mount Lebanon Brook	Housatonic	Pittsfield, Richmond, Hancock
2106225	Seace Brook	Housatonic	Richmond

The BioMap2 Core areas and Contributing Natural Landscape are particularly valuable in ecological terms, and important to species conservation. Completing conservation protection of unprotected land in those areas would enhance the viability of these special areas - size and continuity of open space is particularly important for supporting wildlife populations. Preventing habitat fragmentation is vital in protecting the ecosystem, for the rare species on the enclosed list, as well as for additional common species. Some polygons of both aspects of BioMap2 extend into other municipalities which then provide opportunities to protect large unfragmented areas that will provide the best opportunities to limit further species loss from the Town and region. The BioMap2 Core and CNL polygons are available from MassGIS through the same links as above. There is also an interactive application to see the broad outlines of the polygons in each Town that is linked from the NHESP website. BioMap2 is more up-to-date than BioMap and Living Waters, which it replaces.

BioMap2 and the original BioMap and Living Waters projects are focused on conservation and intended to be planning tools. They include non-regulated components of biodiversity and include broader areas than do the regulatory maps that NHESP also produces.

Estimated Habitat maps are created for use under the Wetlands Protection Act and Priority Habitat maps for use under the Massachusetts Endangered Species Act. These two sets of maps are created for regulatory

June 23, 2015

use, shown in the *Natural Heritage Atlas* (the 2008 Atlas, the 13th edition is the current version; a 14th edition is planned to be released sometime in 2015). Note that Estimated Habitat is a complete subset of Priority Habitat: that is, Estimated Habitat shows a subset of the species' habitats shown in Priority Habitat. These data layers are available from MassGIS at <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/layerlist.html#ConservationRecreation>, requiring access to some form of GIS to view them.

Town commissions and boards are encouraged to request the assistance of the Natural Heritage and Endangered Species Program in reviewing any project proposed in the habitat areas of the regulatory areas of the maps in the *Natural Heritage Atlas*.

Management and monitoring of conservation lands become important as acquisition and protection are accomplished. All wetlands particularly need to maintain their natural water regime, including normal fluctuations and connections with the uplands and other wetlands. Water quantity and quality are ongoing issues for wetlands. Another aspect of managing conservation lands that is important in many areas is controlling invasive non-native species that alter the habitat and occupy space that native species would otherwise use. We strongly recommend monitoring conservation land, and removing non-native species before they become a problem and impact native species.

Please note that this evaluation is based on the most recent information available in the Natural Heritage database, which is constantly being expanded and updated through ongoing research and inventory. Should new rare species information become available, this evaluation may need to be reconsidered.

Please do not hesitate to contact me at (508) 389-6390 or by email at karro.frost@state.ma.us if you have any questions.

Sincerely,



Karro A. Frost

NHESP Conservation Botanist

cc: Melissa Cryan, EOEEA, DCS



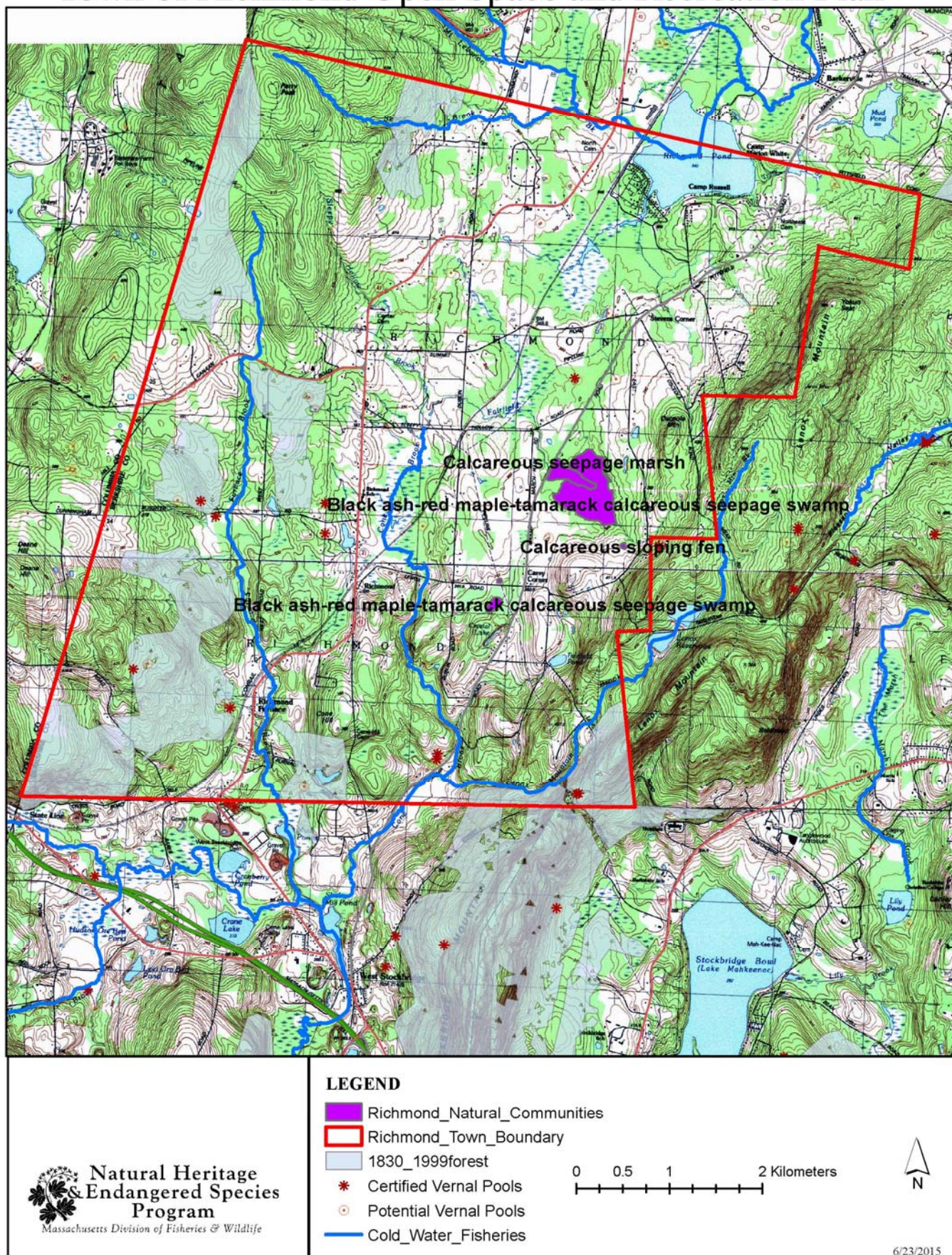
Town of Richmond Rare Species and Communities

Taxonomic Group	ScientificName	CommonName	MESA Status	Federal Status	Most Recent Observation
Amphibian	Ambystoma jeffersonianum	Jefferson Salamander	SC		2009
Bird	Botaurus lentiginosus	American Bittern	E		2008
Bird	Cistothorus platensis	Sedge Wren	E		1988
Bird	Gallinula chloropus	Common Moorhen	SC		1991
Butterfly/Moth	Euphyes dion	Dion Skipper	T		2008
Fish	Notropis bifrenatus	Bridle Shiner	SC		2012
Reptile	Glyptemys insculpta	Wood Turtle	SC		2010
Vascular Plant	Carex alopecoidea	Foxtail Sedge	T		1997
Vascular Plant	Carex chondrorrhiza	Creeping Sedge	E		1999
Vascular Plant	Carex hitchcockiana	Hitchcock's Sedge	SC		1988
Vascular Plant	Carex prairea	Prairie Sedge	WL		2007
Vascular Plant	Carex retrorsa	Retorse Sedge	WL		2001
Vascular Plant	Carex tetanica	Fen Sedge	SC		1988
Vascular Plant	Conioselinum chinense	Hemlock Parsley	SC		2001
Vascular Plant	Diplazium pycnocarpon	Glade Fern	WL		1988
Vascular Plant	Dryopteris goldiana	Goldie's Fern	WL		1988
Vascular Plant	Eleocharis erythropoda	Redfoot Spike-sedge	WL		1990
Vascular Plant	Eleocharis intermedia	Intermediate Spike-sedge	T		1988
Vascular Plant	Equisetum variegatum var. variegatum	Variegated Horsetail	WL		1988
Vascular Plant	Eragrostis frankii	Frank's Lovegrass	SC		1990
Vascular Plant	Eriophorum gracile	Slender Cottongrass	T		2010
Vascular Plant	Galium labradoricum	Labrador Bedstraw	T		2010
Vascular Plant	Gentianella quinquefolia	Stiff Gentian	WL		1990
Vascular Plant	Geum fragarioides	Barren Strawberry	SC		2010
Vascular Plant	Heteranthera dubia	Water Star-grass	WL		2001
Vascular Plant	Juncus nodosus	Knotted Rush	WL		1990
Vascular Plant	Milium effusum	Woodland Millet	T		1999
Vascular Plant	Poa saltuensis ssp. languida	Drooping Speargrass	E		1901
Vascular Plant	Populus balsamifera ssp. balsamifera	Balsam Popular	WL		1988
Vascular Plant	Potamogeton alpinus	Northern Pondweed	H		1864
Vascular Plant	Potamogeton hillii	Hill's Pondweed	SC		2002
Vascular Plant	Rhododendron maximum	Great Laurel	T		2013
Vascular Plant	Ribes triste	Swamp Red Currant	WL		2001
Vascular Plant	Salix candida	Hoary Willow	WL		2001
Vascular Plant	Salix serissima	Autumn Willow	WL		2001
Vascular Plant	Scirpus pendulus	Pendulous Bulrush	WL		1990
Vascular Plant	Sensitive Species		E		2013
Vascular Plant	Sensitive Species		SC		2012
Vascular Plant	Sisyrinchium mucronatum	Slender Blue-eyed Grass	E		2005
Vascular Plant	Spiranthes lucida	Shining Ladies'-tresses	WL		2002
Vascular Plant	Thuja occidentalis	Arborvitae	E		2010
Vascular Plant	Uvularia grandiflora	Large-flowered Bellwort	WL		1988
Vascular Plant	Viola renifolia	Kidney-leaf Violet	WL		1988

Other/Ecological		11 Certified Vernal Pools	
Other/Ecological		39 Potential Vernal Pools	
Natural Community	Freshwater Community	Black ash-red maple-tamarack calcareous seepage swamp	52
Natural Community	Freshwater Community	Black ash-red maple-tamarack calcareous seepage swamp	52
Natural Community	Freshwater Community	Calcareous seepage marsh	52
Natural Community	Freshwater Community	Calcareous sloping fen	52
Natural Community	Freshwater Community	Calcareous sloping fen	52
Natural Community	Terrestrial Community	Calcareous rocky summit/rock outcrop community	52



Town of Richmond Open Space and Recreation Plan



SECTION 11: REFERENCES

Baystate Environmental Consultants Inc. 1990. Diagnostic/Feasibility Study for the Management of Richmond Pond Richmond/Pittsfield, Massachusetts. East Longmeadow, Ma.

Berkshire Regional Planning Commission. 1997. Farmington River Watershed Action Plan – A Comprehensive Management Plan to Address Non-point Source Pollution. Prepared for the Massachusetts Department of Environmental Protection. Pittsfield, MA.

Berkshire Regional Planning Commission. 2001. Unpaved Roads BMP Manual. Prepared for the Massachusetts Department of Environmental Protection. Pittsfield, MA.

Berkshire Regional Planning Commission. 2003. Community Development Plan: Town of Richmond. Pittsfield, MA.

Berkshire Regional Planning Commission. 2004. Unpaved Roads Assessment in the Farmington River Watershed. Prepared for the Massachusetts Department of Environmental Protection. Pittsfield, MA.

Berkshire Regional Planning Commission. 2012. Town of Richmond Long Range Planning Study. Pittsfield, MA.

Coleman, Allison. 2015. Parks: Improving Health and Wellbeing. Available from: <http://www.parksandrecreation.org/2015/April/Parks-Improving-Mental-Health-and-Well-Being/>. Accessed June 9, 2015.

Dobrowski, Tony. October 9, 2011. *Shark Tale Has Some Real Bite*. Berkshire Eagle. Available from www.berkshireeagle.com/local/ci_13538966. Accessed June 18, 2015.

Donahue Institute. University of Massachusetts –

Amherst. Massachusetts Population Projections. Available from <http://pep.donahue-institute.org/>. Accessed on February 21, 2015.

Holmes, G. William. 1966. Stephen Reed, M.D., and the Celebrated Richmond Boulder Train of Berkshire County, Massachusetts, U.S.A. *Journal of Glaciology*. Vol. 6, No. 45.

Kinder Morgan. 2015. Northeast Direct Energy Fact Sheet. Available from: http://www.kindermorgan.com/content/docs/TGP_Northeast_Energy_Direct_Fact_Sheet.pdf. Accessed June 5, 2015.

Massachusetts Department of Fish and Game – Natural Heritage and Endangered Species Program. Town Species Viewer. Available from <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/species-information-and-conservation/town-species-viewer.html>. Accessed March 18, 2015.

Massachusetts Executive Office of Energy and Environmental Affairs. 2015. Environmental Justice Policy. Available from <http://www.mass.gov/eea/grants-and-tech-assistance/environmental-justice-policy.html>. Accessed April 16, 2015.

Massachusetts Executive Office of Energy and Environmental Affairs. Chapter 91, The Public Waterfront Act. Available from: <http://www.mass.gov/eea/agencies/massdep/water/watersheds/chapter-91-the-massachusetts-public-waterfront-act.html>. Accessed May 12, 2015.

Massachusetts Executive Office of Energy and Environmental Affairs. 2002. Housatonic River Watershed 2002 Water Quality Assessment Report. Massachusetts Geographic Information System. 2014. Public Water Supplies. Available from: <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of>



geographic-information-massgis/datalayers/pws.html. Accessed on May 12, 2015.

Massachusetts Geographic Information System. Environmental Justice Viewer. Available from *maps.massgis.state.ma.us/map_ol/ej.php* Accessed on February 20, 2015.

Massachusetts Geographic Information System. Land Use 1951-1999. Available from: <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/lus2005.html>. Accessed on April 13, 2015.

Massachusetts Geographic Information System. Land Use 2005. Available from: <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/lus.html>. Accessed on April 13, 2015.

Massachusetts Geographic Information System. MassDEP Wetlands 1:12,000. Available from: <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/depwetlands112000.html>. Accessed on April 13, 2015.

Massachusetts Geographic Information System. Public Water Supplies. Available from: <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/pws.html>. Accessed on April 31, 2015.

Massachusetts Geographic Information System. 2012. MassDEP 2012 Integrated List of Waters, (305(b)/303(d)). Available from: <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/wbs2012.html>.

Accessed on May 12, 2015.

Massachusetts Geographic Information System. 2015. Protected and Recreational Open Space. Available from: <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/osp.html> Accessed March 4, 2015.

Massachusetts Historical Commission. 2015. Massachusetts Cultural Resource Information System (MACRIS) Database. Available from: <http://mhc-macris.net/Towns.aspx?Page=towns.asp>. Accessed May 28, 2015.

Massachusetts Natural Heritage and Endangered Species Program (NHESP). 2012. Bio-map2: Conserving the Biodiversity of Massachusetts in a Changing World. Town of Richmond Assessment. Boston. Executive Office of Environmental Affairs.

Massachusetts Natural Heritage and Endangered Species Program. 2015. Natural Communities. Available from: <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/natural-communities/>. Accessed May 28, 2015.

Massachusetts Natural Heritage and Endangered Species Program. 1999. Calcareous Seepage Marsh Fact Sheet. Available from <http://www.mass.gov/eea/docs/dfg/nhesp/natural-communities-facts/calcareous-seepage-marsh.pdf>. Accessed May 28, 2015.

Massachusetts Natural Heritage and Endangered Species Program. 1999. Calcareous Sloping Fen Fact Sheet. Available from <http://www.mass.gov/eea/docs/dfg/nhesp/natural-communities-facts/calcareous-sloping-fen.pdf>. Accessed May 28, 2015.

Massachusetts Natural Heritage and Endangered Species Program. 2011. BioMap2, Guiding Land

Conservation for Biodiversity in Massachusetts: Richmond. Westborough, MA. Available from: <http://www.mass.gov/dfwele/dfw/nhesp/conservation/housatonic.htm>. Accessed on April 15, 2015.

Massachusetts Natural Heritage and Endangered Species Program. 2008. Northern Hardwoods – Hemlock – White Pine Fact Sheet. Available from: <http://www.mass.gov/eea/docs/dfg/nhesp/natural-communities-facts/northern-hardwood-hemlock.pdf>. Accessed May 28, 2015.

Massachusetts Natural Heritage and Endangered Species Program. 2010. Black Ash-Red Maple-Tamarack Calcareous Seepage Swamps Fact Sheet. Available from: <http://www.mass.gov/eea/docs/dfg/nhesp/natural-communities-facts/black-ash-red-maple-tam-calc.pdf>. Accessed May 28, 2015.

Massachusetts Natural Heritage and Endangered Species Program. 2000. Calcareous Rocky Summit Fact Sheet. Available from <http://www.mass.gov/eea/docs/dfg/nhesp/natural-communities-facts/calcareous-rocky-summit-rock-outcrop.pdf>. Accessed May 28, 2015.

Massachusetts Natural Heritage and Endangered Species Program. 2008. Bridle Shiner Fact Sheet. Available from <http://www.mass.gov/eea/docs/dfg/nhesp/species-and-conservation/nhfacts/notropis-bifrenatus.pdf>. Accessed May 28, 2015.

Morse, Gloria. 2015. Personal Communication.

Richmond Land Trust. Available from <http://www.richmondlandtrust.net/>. Accessed May 7, 2015.

Richmond Pond Association. Available from <http://www.richmondpondassociation.org/>. Accessed March 24, 2015.

Strava. 2015. Strava Labs Heat Map. Available

from: <http://labs.strava.com/heatmap>. Accessed June 18, 2015.

Town Of Richmond, Massachusetts. 1995. Richmond Town Plan.

U.S Census Bureau. 2010 Census.

U.S. Census Bureau, 2005-2009 5-Year American Community Survey.

U.S. Census Bureau, 2009-2013 5-Year American Community Survey.

U.S. Census Bureau. 2000 Census.

U.S. Environmental Protection Agency. Waters Assessment Tracking and Environmental Results. Massachusetts Impaired Waters and TMDL Information. Available from http://iaspub.epa.gov/tmdl/attains_state.control?p_state=MA&p_cycle=&p_report_type=T. Accessed March 24, 2015.

US Environmental Protection Agency. Rest of River-Overview. Available from <http://www.epa.gov/housatonic/thesite/restofriver.html>. Accessed March 31, 2015.

**OPEN SPACE AND
RECREATION PLAN**
2016-2022

Town of Richmond,
Massachusetts

The following vision statement was developed by the
Richmond Open Space Advisory Committee:

The Town of Richmond is a rural, tranquil, and family-friendly hamlet in the Central Berkshire Region of Massachusetts that carefully stewards its treasured open spaces and maintains rich cultural, recreational, and scenic resources that collectively foster a strong sense of place and community vitality that benefits its residents and visitors.

APPENDICES to the RICHMOND OPEN SPACE AND RECREATION PLAN

A: Maps

B: Vernal Pool and Conservation Parcel Data

C: Americans with Disabilities Act (ADA) Self Evaluation

D: Public Survey Results

E: Potential Walking Loop Maps

F: BioMap2 Reports

**OPEN SPACE AND
RECREATION PLAN
2016-2022**

**Town of Richmond,
Massachusetts**

APPENDIX A: MAPS

Map 1—Regional Context

Map 2—Environmental Justice Populations

Map 3— Zoning

Map 4— Soils and Geologic Features

Map 5—Unique Features

Map 6—Water Resources

Map 7—Inventory of Lands of Conservation and Recreation Interest

Map 8— Action Plan Map

Map A—Historic

Map C—Current Land Use

Map D—Infrastructure

Map E—Remaining Buildable Land

Map F—Vegetation, Fisheries, and Wildlife

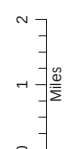
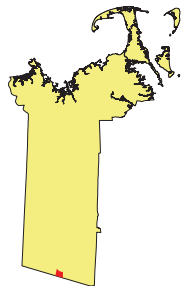
Map H—Wetlands

Note: Map numbering and lettering conventions are based on requirements for this plan found in the Open Space Recreation Planner's Workbook. Maps B and G are optional, and have not been included in this document.

Town of Richmond Open Space and Recreation Plan

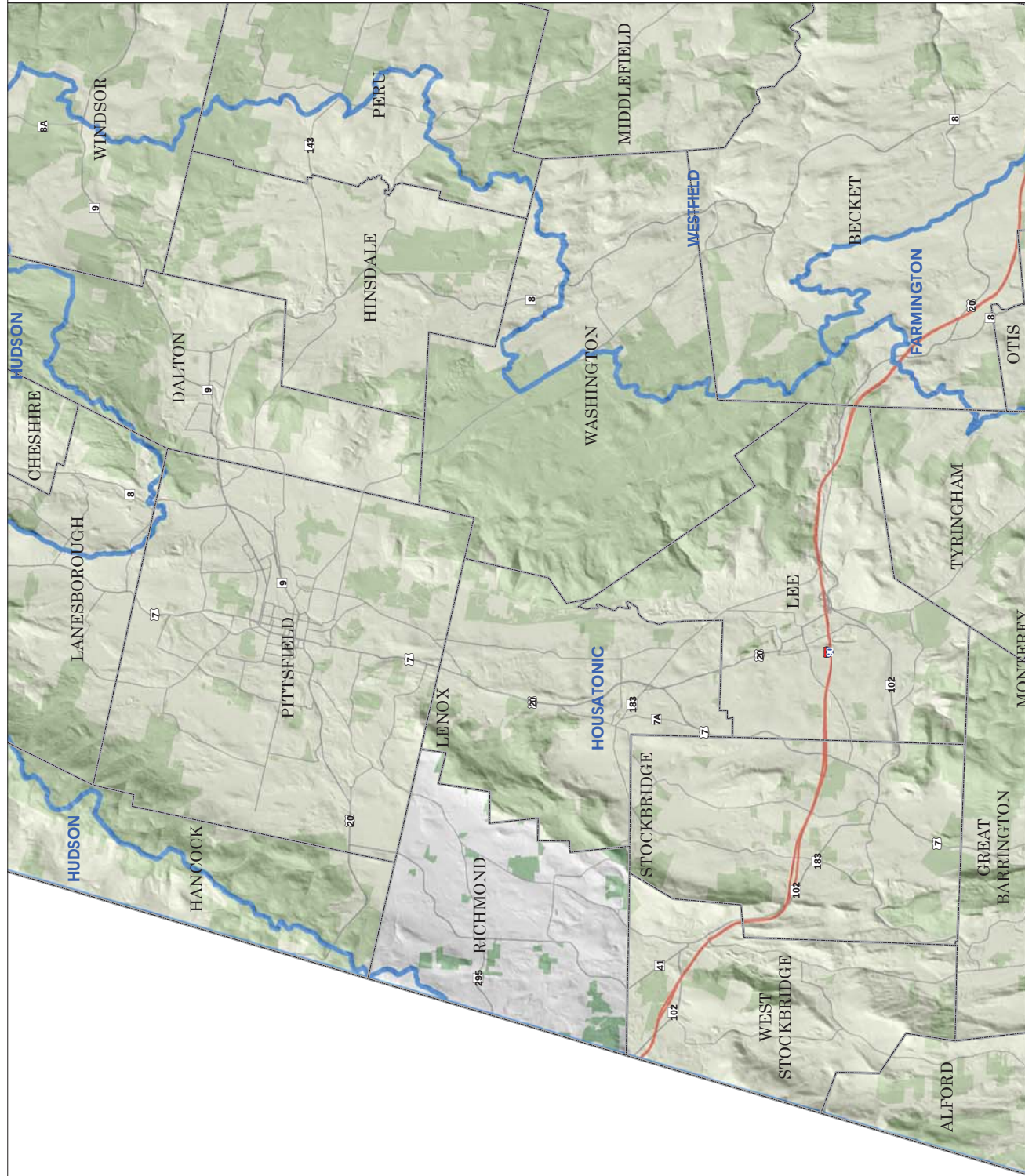
Map 1: Regional Context

- StateMask
- Towns
- Interstate
- Major Road
- Minor Road
- Major Watersheds
- Protected Land



This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The Berkshire Regional Planning Commission and its member municipalities may have supplied portions of this data.

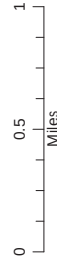
Berkshire Regional Planning Commission



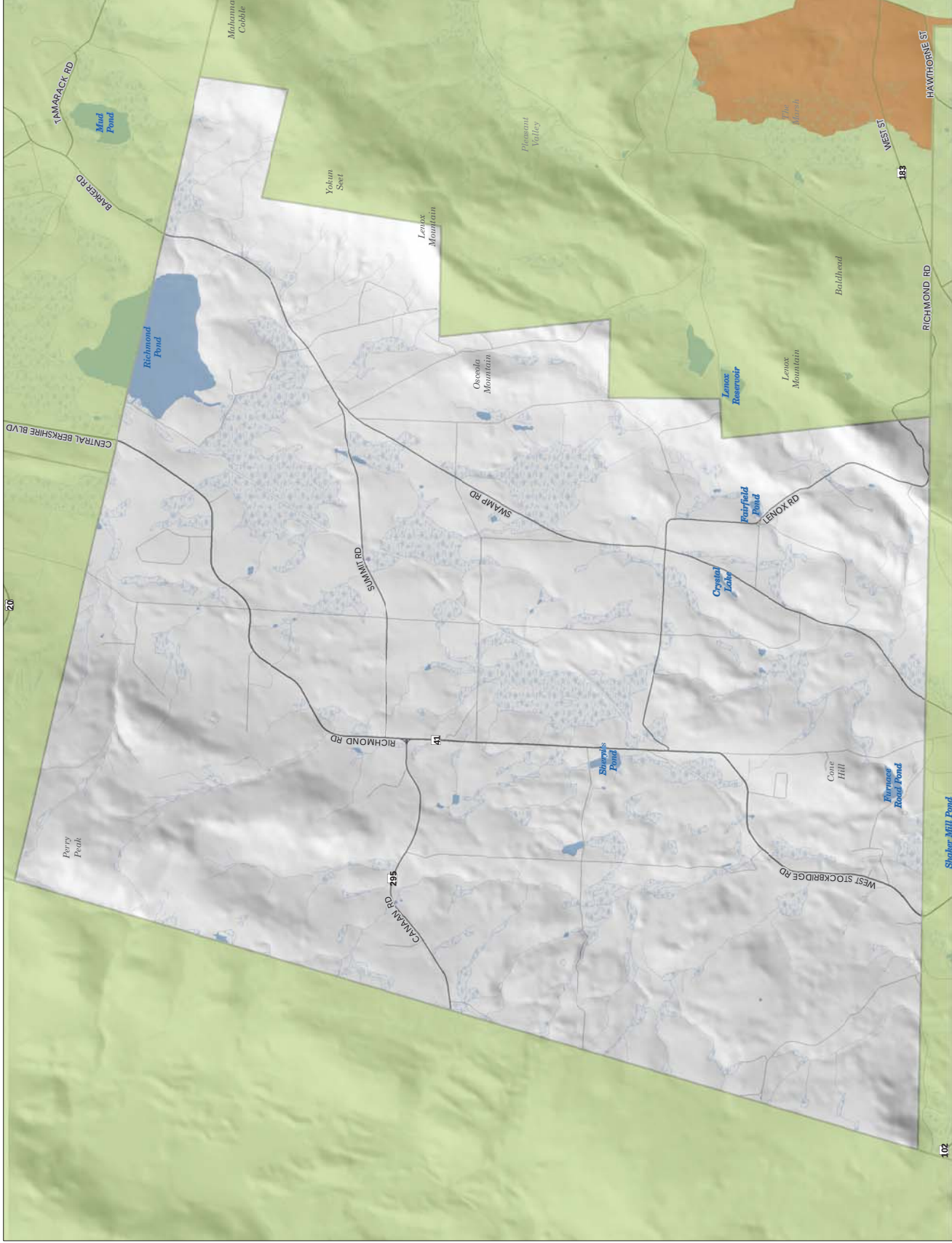
Town of Richmond Open Space and Recreation Plan

Map 2: Environmental Justice Populations

-  Towns
-  Interstate
-  Major Road
-  Minor Road
-  Local Road
-  Stream
-  Wetland
-  Open Water
-  Environmental Justice

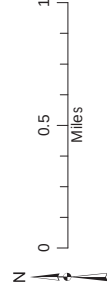


This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map is based on data from the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Department of Environmental Protection (MassDEP). The map is not a warranty, representation, or endorsement by the Commission or the municipalities. The Commission and the municipalities have supplied portions of this data.



Town of Richmond Open Space and Recreation Plan Map 3: Zoning

- COMM
- RA-A
- RA-C
- SR
- Floodplain Overlay District
- Wireless Communication Overlay District
- Scenic Mountain Act
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water



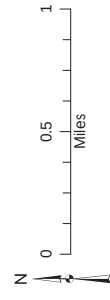
This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map is based on GIS data provided by the Massachusetts Statewide Planning and Mapping Office (SPMO) or the municipality may have supplied portions of this data.



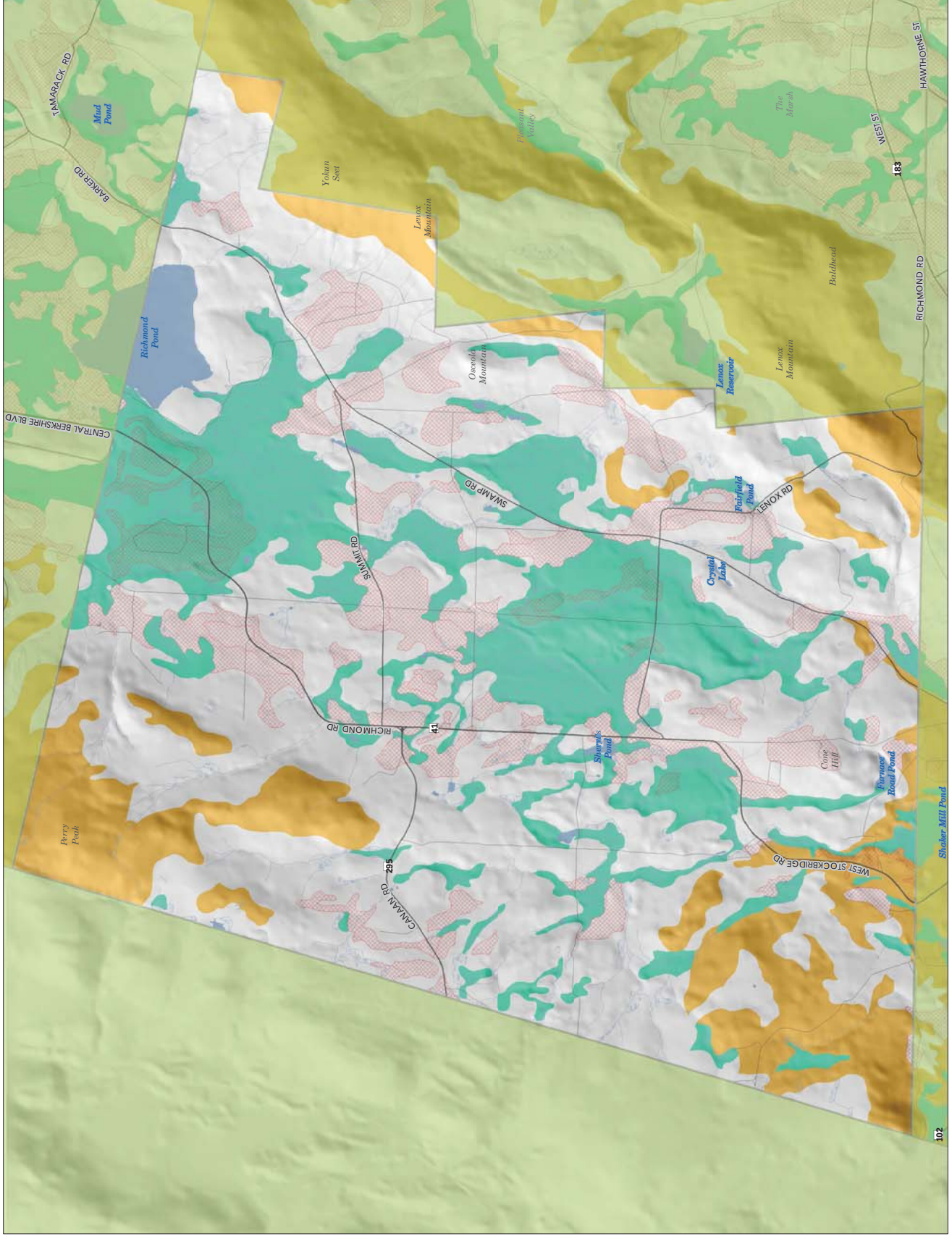
Town of Richmond Open Space and Recreation Plan

Map 4: Soils and Geologic Features Map

- Prime Agricultural Soils
- Excessively Drained Soils
- Poorly Drained Soils
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water



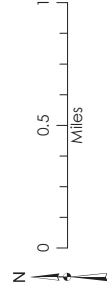
This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map is based on data supplied by the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Department of Environmental Protection (MassDEP). The map is not a warranty, representation, or guarantee of accuracy. The map is provided as a reference only. The map is not a warranty, representation, or guarantee of accuracy. The map is provided as a reference only.



Town of Richmond Open Space and Recreation Plan

Map 5: Unique Features Map

- Priority Conservation Area
- Chapter 61
- Chapter 61A
- DCR Scenic Landscapes
- Open Land
- Agricultural Land
- Commercial Land
- Industrial Land
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water



This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for regulatory purposes, including but not limited to, zoning, subdivision, or other regulatory purposes. The map is the property of the Berkshire Regional Planning Commission and the municipality may have supplied portions of this data.





Berkshire
Regional
Planning
Commission

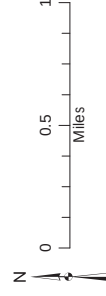
Town of Richmond

Open Space and Recreation Plan

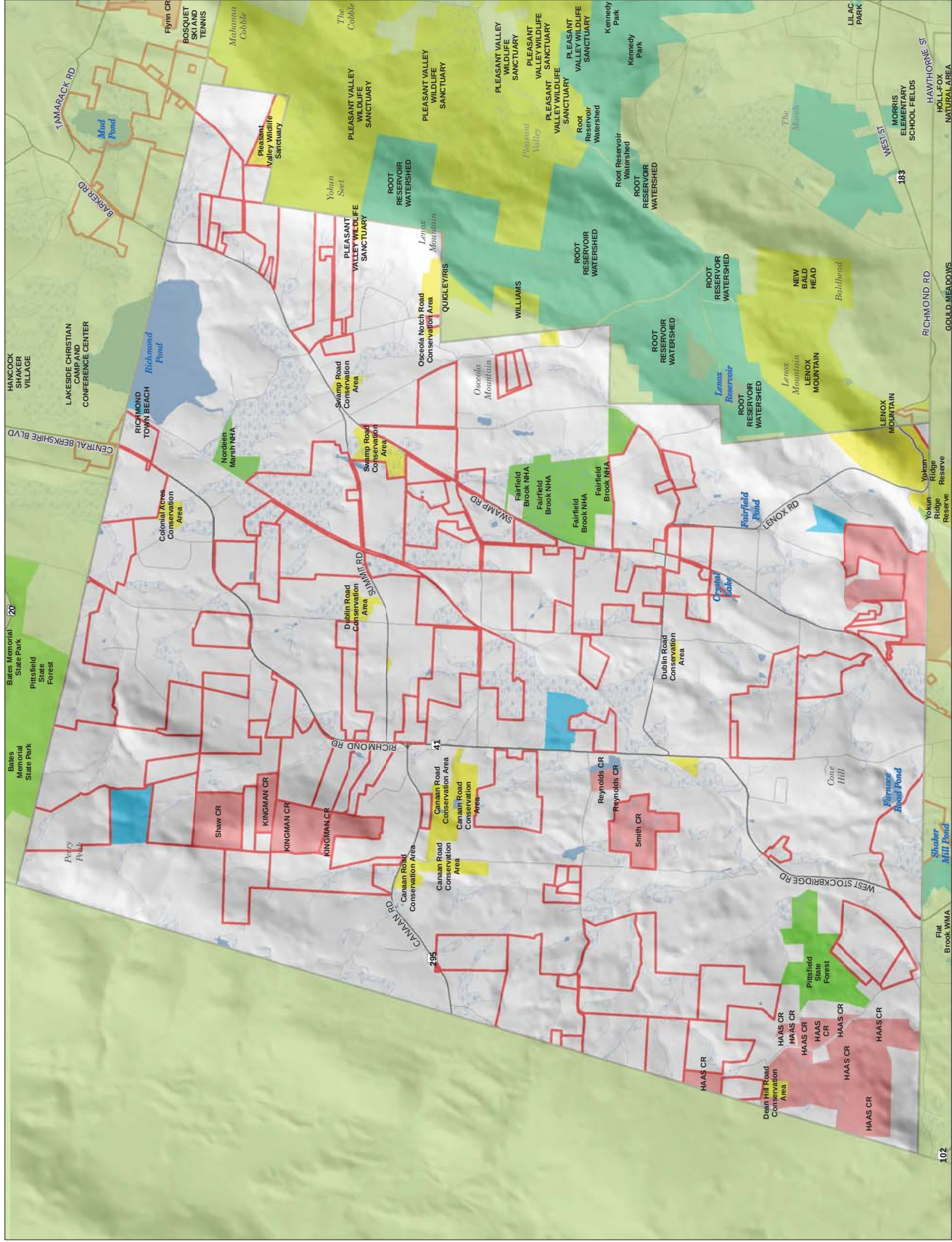
Map 7

Inventory of Land of Conservation and Recreation Interest

- State
- Municipality
- Land Trust
- Private
- Chapter 61, 61A, 61B
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water

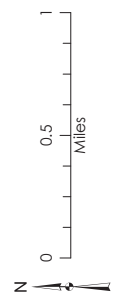


This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map is based on the best available data as of the date of the map. The map is not a warranty, representation, or endorsement by the Commission or the participating municipalities. The Commission and the participating municipalities have supplied portions of this data.



Town of Richmond Open Space and Recreation Plan Map 8: Action Plan

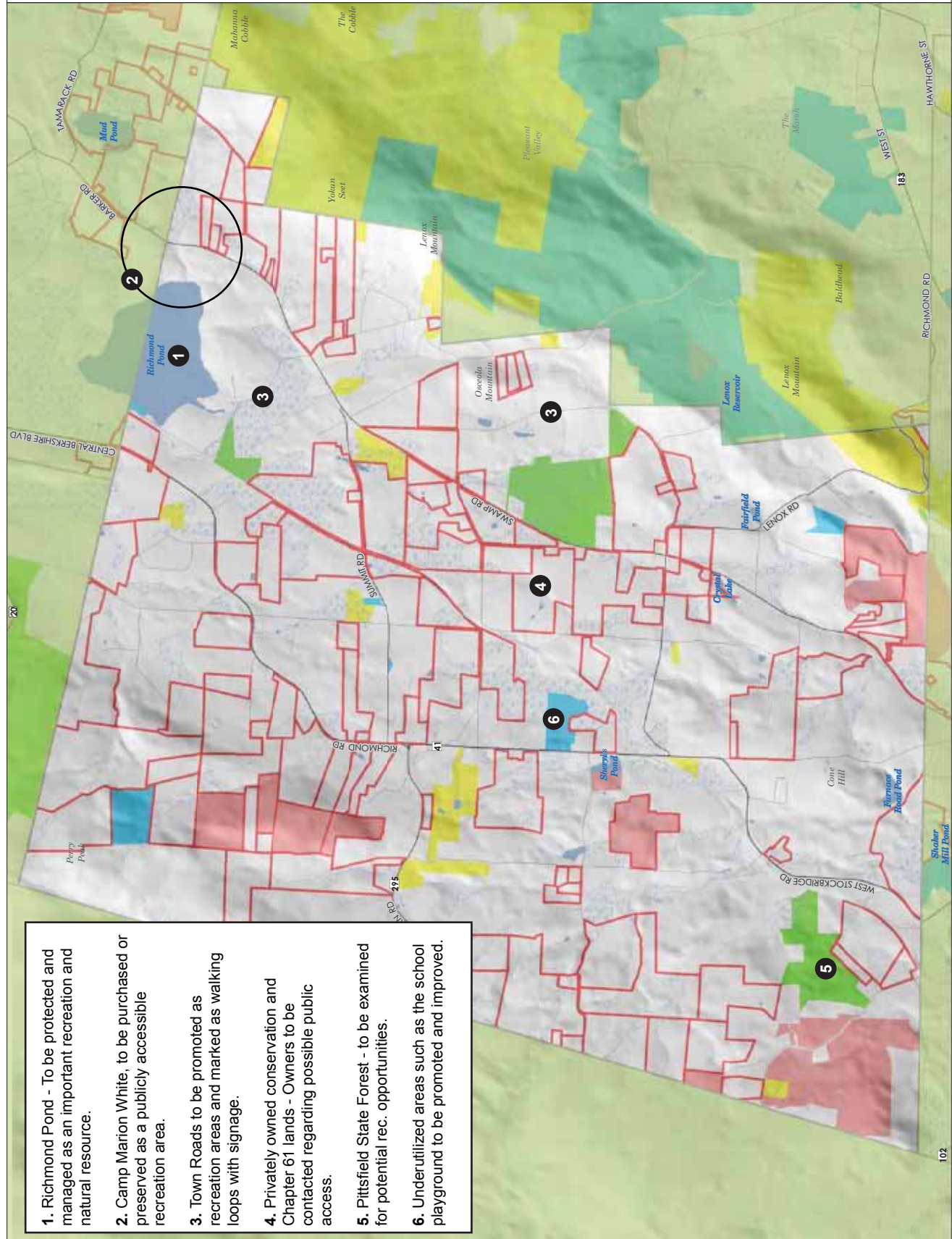
- State
- Municipality
- Land Trust
- Private
- Chapter 61, 61A, 61B
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water



This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, surveying, legal, or other purposes. The Berkshire Regional Planning Commission (BRPC) or the municipality may have supplied portions of this data.

Berkshire Regional Planning Commission

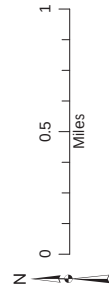
1. Richmond Pond - To be protected and managed as an important recreation and natural resource.
2. Camp Marion White, to be purchased or preserved as a publicly accessible recreation area.
3. Town Roads to be promoted as recreation areas and marked as walking loops with signage.
4. Privately owned conservation and Chapter 61 lands - Owners to be contacted regarding possible public access.
5. Pittsfield State Forest - to be examined for potential rec. opportunities.
6. Underutilized areas such as the school playground to be promoted and improved.



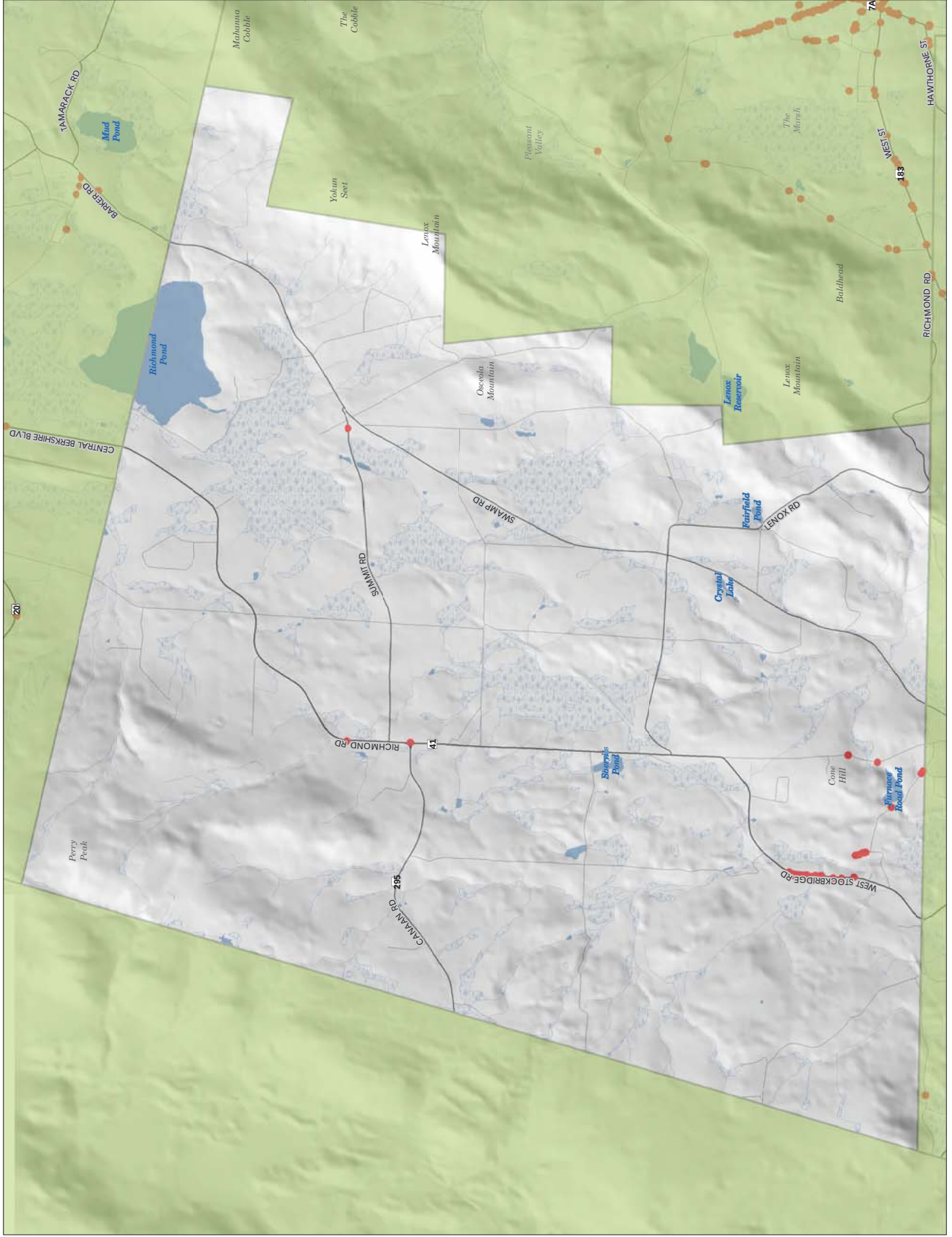
Town of Richmond Open Space and Recreation Plan

Map A: Historic Resources

- Historic Properties (MACRIS)
- ☐ Towns
- ↗ Interstate
- ↘ Major Road
- ↘ Minor Road
- ↘ Local Road
- ~ Stream
- ~ Wetland
- ~ Open Water



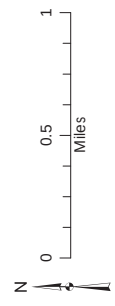
This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, or legal purposes. The map data was derived from MACRIS, a GIS database maintained by the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Department of Environmental Protection (MassDEP). The map data may have supplied portions of this date.



Town of Richmond Open Space and Recreation Plan

Map C: Current Land Use (2005)

- Forest
- Agriculture
- Commercial
- Industrial
- Multi-Family Residential
- Medium Density Residential
- Low Density Residential
- Very Low Density Residential
- Recreation
- Open Land
- Urban Public/Institutional
- Utilities / Transportation
- Water
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water



This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map data is derived from the 2005 Census of the Municipality of Richmond or the municipality may have supplied portions of this data.

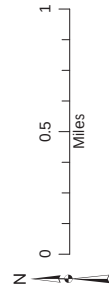


Town of Richmond

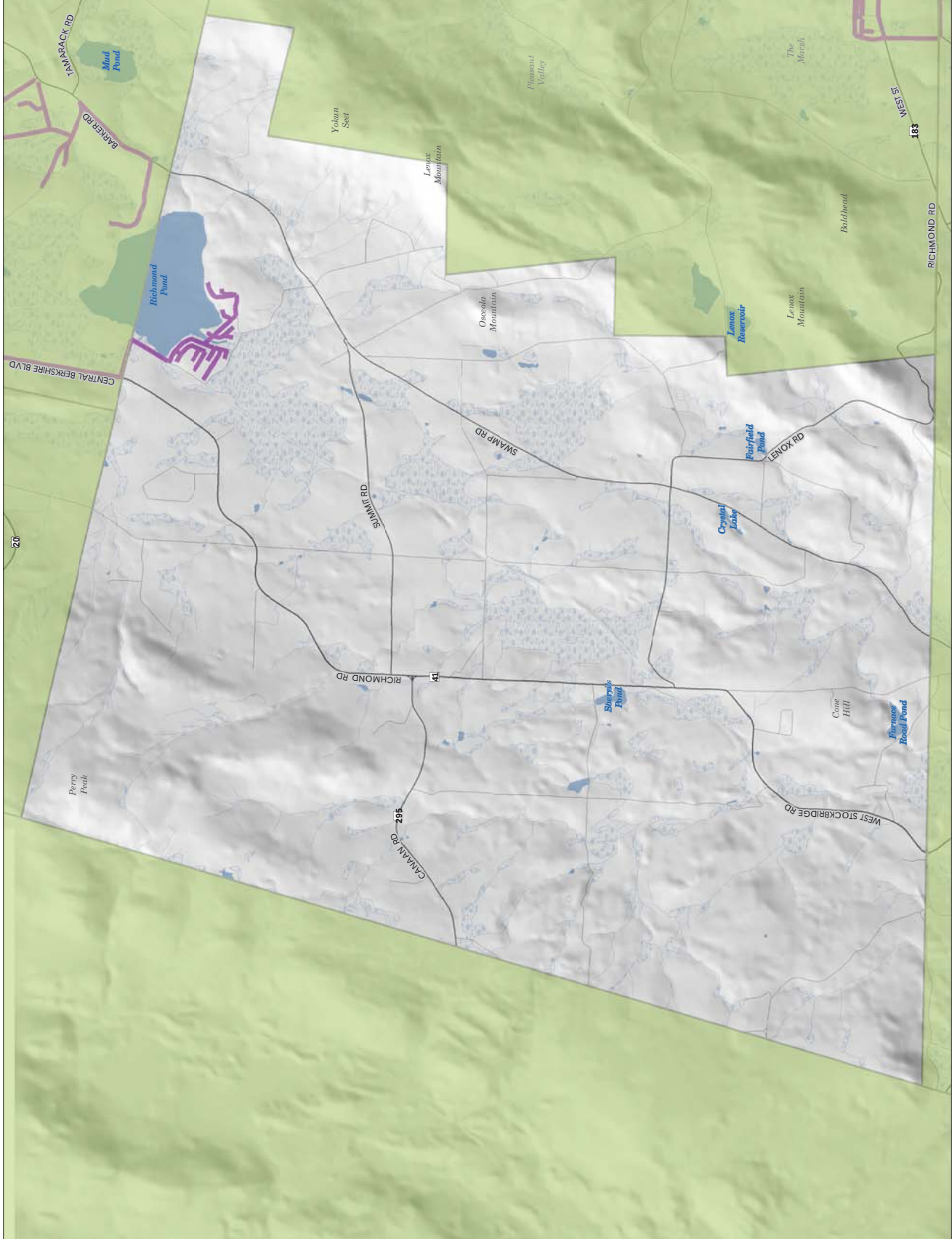
Open Space and Recreation Plan

Map D: Infrastructure

- Wastewater
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water

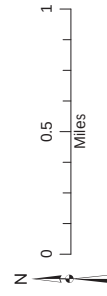


This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map is based on GIS data provided by the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Department of Environmental Protection (MassDEP). The map is not a warranty, representation, or endorsement by the Commission or the municipality of any data or information. The Commission and the municipality may have supplied portions of this data.

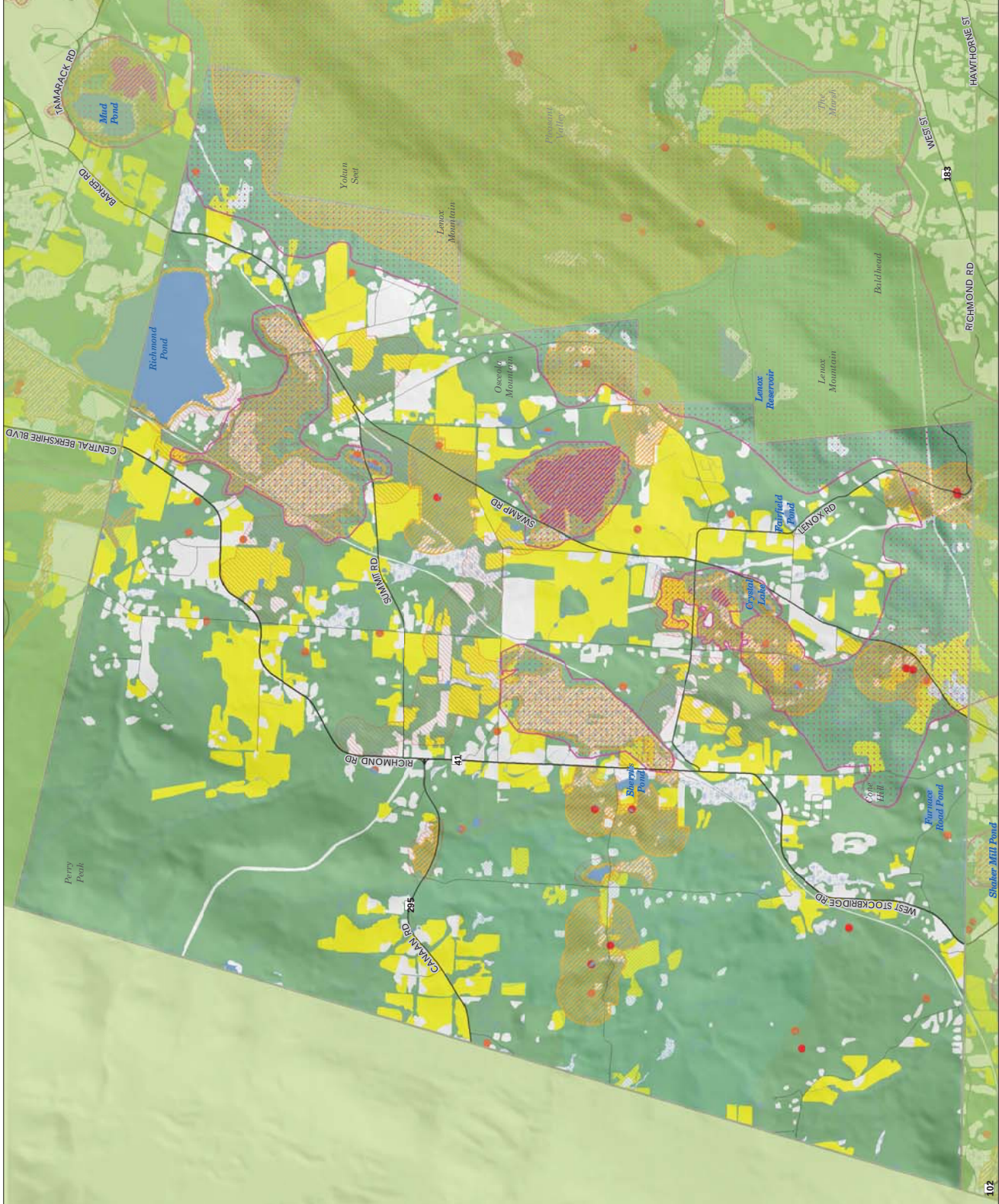


Town of Richmond Open Space and Recreation Plan Map F: Vegetation and Fisheries and Wildlife

- Critical Natural Landscapes
- Priority Conservation Area
- Certified Vernal Pool
- Potential Vernal Pool
- NHESP Priority Habitats of Rare Species
- BioMap2 Core Habitat
- Natural Communities
- Agriculture
- Forest
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water

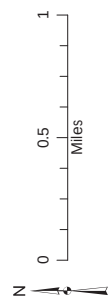


This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map is based on data from the Massachusetts Department of Environmental Protection (MassDEP) and the Massachusetts Department of Transportation (MassDOT). The map is not a warranty, representation, or guarantee of accuracy. The map is provided as a reference only. The map is not a warranty, representation, or guarantee of accuracy. The map is provided as a reference only.

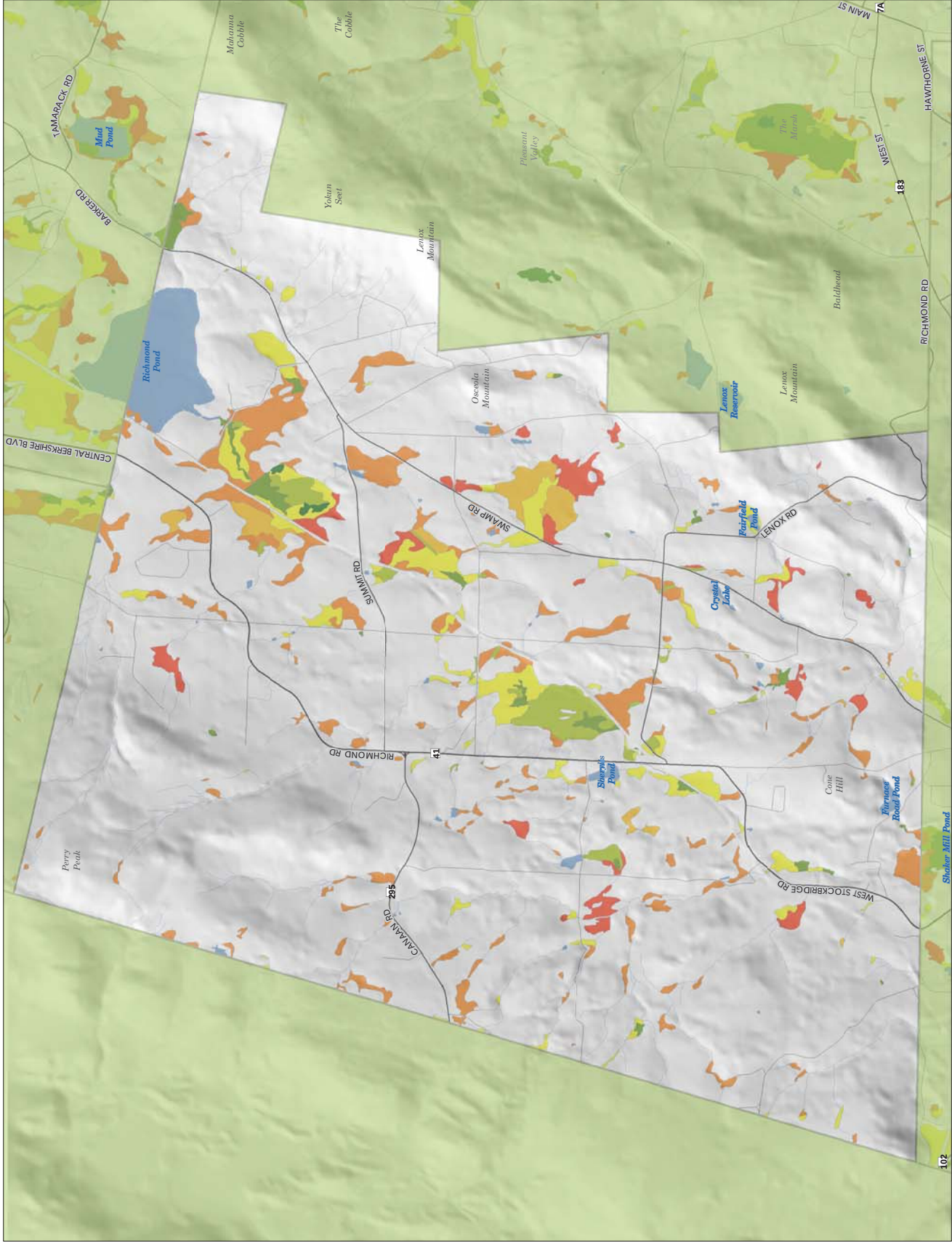


Town of Richmond Open Space and Recreation Plan Map G: Wetlands

- Bog
- Deep Marsh
- Shallow Marsh Meadow or Fen
- Shrub Swamp
- Wooded Swamp Coniferous
- Wooded Swamp Deciduous
- Wooded Swamp Mixed Trees
- Open Water
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream



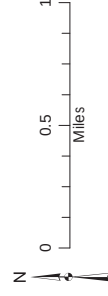
This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map is based on data provided by the Massachusetts Department of Environmental Protection (MassDEP) and the Massachusetts Geographic Information System (MassGIS). The map is not a warranty, representation, or guarantee of accuracy. The map is provided as a reference only. The map is not a warranty, representation, or guarantee of accuracy. The map is provided as a reference only.



Town of Richmond Open Space and Recreation Plan

MAP H: Buildable Land

- Partially Constrained Land
- Buildable Land
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water



This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map is based on the best available data and the municipality may have supplied portions of this data.





APPENDIX B: VERNAL POOL AND CONSERVATION PARCEL DATA

Table B1 - Parcels Containing Potential Vernal Pools

See Vernal Pools Map, this appendix

Source: Mass. GIS Wetlands

MAP_PAR_ID	Label	SITE_ADDR
2491060002100000	106-21	FURNACE ROAD
2494020000800000	402-8	350 DUBLIN ROAD
2494020008700000	402-87	90 GRIST MILL ROAD
2494020009210000	402-92.1	0 STATE ROAD
2494020010700000	402-107	399 STATE ROAD
2494030001400000	403-14	1 SWAMP ROAD
2494040000100000	404-1	462 EAST ROAD
2494040003010000	404-30.1	0 YOKUN ROAD
2494050000500000	405-5	0 STATE ROAD
2494050002906000	405-29.6	1238 STATE ROAD
2494050005200000	405-52	311 SUMMIT ROAD
2494050005600000	405-56	670 DUBLIN ROAD
2494050006800000	405-68	687 SUMMIT ROAD
2494050007000000	405-70	0 SUMMIT ROAD
2494060001600000	406-16	80 CUNNINGHAM HILL ROAD
2494070001801000	407-18.1	80 BIRCH LANE
2494070005000000	407-50	638 ROSSITER ROAD
2494080007400000	408-74	0 DUBLIN ROAD
2494080010000000	408-100	0 SWAMP ROAD
2494080010600000	408-106	1151 EAST ROAD
2494080017100000	408-171	1921 DUBLIN ROAD
2494080017900000	408-179	2034 DUBLIN ROAD
2494090000920000	409-9.2	660 OSCEOLA ROAD
2494110002800000	411-28.1	2650 SWAMP ROAD
2494110006000000	411-60	1404 LENOX ROAD
2494120002210000	412-22.1	0 DEAN HILL ROAD
2494040000900000	404-9	0 EAST ROAD
2494080015700000	408-157	2050 SWAMP ROAD

Table B2 - Parcels Containing BioMap2 Core Habitat, Priority Habitat for Rare Species, and Priority Conservation Areas

See Priority Environmental Areas Map, this appendix

Source: Mass. GIS BioMap2

MAP_PAR_ID	Label	SITE_ADDR
2491010000100000	101-1	0 BOY'S CLUB ROAD
2491010000200000	101-2	0 BOY'S CLUB ROAD
2491010000300000	101-3	0 WALNUT ROAD
2491010000400000	101-4	WALNUT ROAD
2491010000500000	101-5	0 WALNUT ROAD
2491010000600000	101-6	WALNUT ROAD
2491010000700000	101-7	0 OAK ROAD
2491010000800000	101-8	WALNUT ROAD
2491010000900000	101-9	WALNUT ROAD
2491010001000000	101-10	0 WALNUT ROAD
2491010001100000	101-11	CHESTNUT STREET
2491010001600000	101-16	OAK ROAD
2491010001700000	101-17	59 OAK ROAD
2491010001800000	101-18	OAK ROAD
2491010001900000	101-19	SHORE ROAD
2491010002000000	101-20	85 OAK ROAD
2491010002100000	101-21	105 OAK ROAD
2491010002200000	101-22	MAPLE ROAD
2491010002220000	101-22.2	0 OAK ROAD
2491010002300000	101-23	0 SPRUCE ROAD
2491010002400000	101-24	0 OAK ROAD
2491010002500000	101-25	0 OAK ROAD
2491010002600000	101-26	0 OAK ROAD
2491010003400000	101-34	MAPLE ROAD
2491010003500000	101-35	0 MAPLE ROAD
2491010003600000	101-36	0 MAPLE ROAD
2491010003700000	101-37	MAPLE ROAD
2491010003800000	101-38	MAPLE ROAD
2491010003900000	101-39	0 MAPLE ROAD
2491010010000000	101-100	SHORE ROAD
2491010010300000	101-103	160 CHESTNUT STREET
2491010010600000	101-106	0 CHESTNUT STREET
2491010010610000	101-106.1	CHESTNUT STREET
2491010010700000	101-107	118 CHESTNUT STREET
2491010010800000	101-108	100 CHESTNUT STREET
2491010010900000	101-109	94 CHESTNUT STREET
2491010011000000	101-110	68 CHESTNUT STREET
2491010011100000	101-111	0 HEMLOCK ROAD
2491010011200000	101-112	HEMLOCK ROAD
2491010011300000	101-113	CHESTNUT STREET
2491010011500000	101-115	0 MAPLE ROAD



2491010011500000	101-115	0 MAPLE ROAD
2491010011800000	101-118	11 OAK ROAD
2491010011900000	101-119	0 CHERRY ROAD
2491010012000000	101-120	CHERRY ROAD
2491010012200000	101-122	24 CHERRY ROAD
2491010012300000	101-123	HEMLOCK ROAD
2491010012400000	101-124	7 BRIDGE STREET
2491010012700000	101-127	6 BRIDGE STREET
2491010013000000	101-130	211 SHORE ROAD
2491010013100000	101-131	219 SHORE ROAD
2491010013200000	101-132	235 SHORE ROAD
2491010013300000	101-133	0 SHORE ROAD
2491010013400000	101-134	0 SHORE ROAD
2491010013500000	101-135	257 SHORE ROAD
2491010013600000	101-136	263 SHORE ROAD
2491010013800000	101-138	293 SHORE ROAD
2491010013900000	101-139	311 SHORE ROAD
2491010014000000	101-140	323 SHORE ROAD
2491010014100000	101-141	0 SHORE ROAD
2491010014200000	101-142	0 SHORE ROAD
2491010014300000	101-143	314 SHORE ROAD
2491010014400000	101-144	310 SHORE ROAD
2491010014500000	101-145	302 SHORE ROAD
2491010014600000	101-146	300 SHORE ROAD
2491010014700000	101-147	292 SHORE ROAD
2491010014800000	101-148	290 SHORE ROAD
2491010014900000	101-149	278 SHORE ROAD
2491010015000000	101-150	274 SHORE ROAD
2491010015100000	101-151	0 SHORE ROAD
2491010015200000	101-152	SHORE ROAD
2491010015300000	101-153	248 SHORE ROAD
2491010015400000	101-154	240 SHORE ROAD
2491010015500000	101-155	230 SHORE ROAD
2491010015800000	101-158	212 SHORE ROAD
2491010015900000	101-159	210 SHORE ROAD
2491010016000000	101-160	208 SHORE ROAD
2491010016100000	101-161	200 SHORE ROAD

2491010016200000	101-162	192 SHORE ROAD
2491010016300000	101-163	0 SHORE ROAD
2491010016400000	101-164	9 BOAT LANE
2491010016500000	101-165	15 BOAT LANE
2491010016600000	101-166	0 BOAT LANE
2491010016700000	101-167	34 BOAT LANE
2491010016800000	101-168	22 BOAT LANE
2491010016900000	101-169	18 BOAT LANE
2491010017000000	101-170	144 SHORE ROAD
2491010017100000	101-171	140 SHORE ROAD
2491010017200000	101-172	132 SHORE ROAD
2491010017300000	101-173	130 SHORE ROAD
2491010017400000	101-174	0 SHORE ROAD
2491010017500000	101-175	120 SHORE ROAD
2491010017600000	101-176	0 SHORE ROAD
2491010017700000	101-177	SHORE ROAD
2491010017800000	101-178	106 SHORE ROAD
2491010017900000	101-179	27 EAST BEACH ROAD
2491010018100000	101-181	33 EAST BEACH ROAD
2491010018200000	101-182	0 EAST BEACH ROAD
2491010018300000	101-183	115 SHORE ROAD
2491010018400000	101-184	129 SHORE ROAD
2491010018500000	101-185	141 SHORE ROAD
2491010018600000	101-186	29 WILLOW ROAD
2491010018700000	101-187	43 WILLOW ROAD
2491010018800000	101-188	0 WILLOW ROAD
2491010018900000	101-189	0 WILLOW ROAD
2491010019000000	101-190	159 WILLOW ROAD
2491010019100000	101-191	9 CHERRY ROAD
2491010019200000	101-192	CHERRY ROAD
2491010019300000	101-193	25 CHERRY ROAD
2491010019400000	101-194	39 CHERRY ROAD
2491010019500000	101-195	51 CHERRY ROAD
2491010019700000	101-197	0 BEECH ROAD
2491020000100000	102-1	341 BOYS CLUB ROAD
2491020000200000	102-2.11	330 BRANCH FARM ROAD
2491020002900000	102-29	168 SWAMP ROAD
2491020002901000		
2491020003000000	102-30	57 LAKE ROAD
2491020003200000	102-32	37 LAKE ROAD EXT.
2491020003300000	102-33	39 LAKE ROAD EXT.
2491020003400000	102-34	57 LAKE ROAD EXT.
2491020003700000	102-37	70 LAKE ROAD EXT.
2491020003800000	102-38	58 LAKE ROAD EXT.
2491020003900000	102-39	56 LAKE ROAD EXT.
2491020004000000	102-40	0 LAKE ROAD EXT.



2491020004100000	102-41	40 LAKE ROAD EXT.
2491020004400000	102-44	87 LAKE ROAD
2491020004500000	102-45	95 LAKE ROAD
2491020004600000	102-46	LAKE ROAD
2491020004700000	102-47.2	42 LAKE ROAD EXT
2491020005100000	102-51	35 TRURAN LANE
2491020005300000	102-53	20 SWAMP ROAD
2491020005400000	102-54	SWAMP ROAD
2491030000220000	103-2.2	0 SWAMP ROAD
2491030000330000	103-3.3	0 SWAMP ROAD
2491030001100000	103-11	329 SWAMP ROAD
2491040000100000	104-1	0 BOY'S CLUB ROAD
2491040000200000	104-2	0 BOY'S CLUB ROAD
2491040000300000	104-3	15 BEECH ROAD
2491040000400000	104-4	0 BEECH ROAD
2491040000500000	104-5	0 CHERRY ROAD
2491040000600000	104-6	75 CHERRY ROAD
2491040000700000	104-7	0 CHERRY ROAD
2491040000800000	104-8	0 CHERRY ROAD
2491040000900000	104-9	0 CHERRY ROAD
2491040001000000	104-10	0 WALNUT ROAD
2491040001100000	104-11	5 WALNUT ROAD
2491040001200000	104-12	SHORE ROAD
2491040001300000	104-13	SHORE ROAD
2491040002000000	104-20	0 ELM ROAD
2491040002100000	104-21	0 ELM ROAD
2491040002200000	104-22	1 WILLOW ROAD
2491040002300000	104-23	21 WILLOW ROAD
2491040002400000	104-24	8 WILLOW ROAD
2491040002500000	104-25	38 ELM ROAD
2491040002600000	104-26	13 PINE ROAD
2491040002700000	104-27	19 PINE ROAD
2491040002900000	104-29	20 PINE ROAD
2491040003000000	104-30	12 PINE ROAD
2491040003100000	104-31	10 ELM ROAD
2491040003200000	104-32	93 SHORE ROAD
2491040003300000	104-33	99 SHORE ROAD
2491040003400000	104-34	101 SHORE ROAD
2491040003500000	104-35	SHORE ROAD
2491040003600000	104-36	109 SHORE ROAD
2491040003700000	104-37	0 SHORE ROAD
2491040003900000	104-39	18 EAST BEACH ROAD
2491040004000000	104-40	0 EAST BEACH ROAD
2491060002100000	106-21	FURNACE ROAD

2494020005000000	402-50	17 DUBLIN ROAD
2494020009500000	402-95	0 STATE ROAD
2494020009700000	402-97	153 STATE ROAD
2494020009800000	402-98	193 STATE ROAD
2494020010200000	402-102	281 STATE ROAD
2494020010300000	402-103	19 ANTHONY ROAD
2494020010400000	402-104	51 ANTHONY ROAD
2494020010500000	402-105	58 ANTHONY ROAD
2494020010700000	402-107	399 STATE ROAD
2494020010800000	402-108	425 STATE ROAD
2494020010900000	402-109	0 STATE ROAD
2494020011000000	402-110	629 STATE ROAD
2494020011100000	402-111	651 STATE ROAD
2494020011110000	402-111.1	0 DUBLIN ROAD
2494030000100000	403-1	81 STATE ROAD
2494030000200000	403-2	123 STATE ROAD
2494030000400000	403-4	SWAMP ROAD
2494030000600000	403-6	SWAMP ROAD
2494030000700000	403-7	109 SWAMP ROAD
2494030000800000	403-8	0 SWAMP ROAD
2494030001100000	403-11	45 CEMETERY ROAD
2494030001200000	403-12	0 CEMETERY ROAD & SWAMP ROAD
2494030001300000	403-13	0 CEMETERY ROAD
2494030001400000	403-14	1 SWAMP ROAD
2494030001500000	403-15	CEMETERY ROAD
2494030001600000		
2494040000100000	404-1	462 EAST ROAD
2494040000400000	404-4	380 EAST ROAD
2494040001000000	404-10	810 SWAMP ROAD
2494040001100000	404-11	0 SWAMP ROAD
2494040001110000	404-11.1	0 SUMMIT ROAD
2494040001200000	404-12	897 SUMMIT ROAD
2494040001300000	404-13	913 SUMMIT ROAD
2494040001500000	404-15	OSCEOLA RD EXTENSION
2494040001810000	404-18.1	981 SUMMIT ROAD
2494040001820000	404-18.2	90 OSCEOLA ROAD EXT
2494040001830000	404-18.3	60 OSCEOLA ROAD EXT
2494040001840000	404-18.4	50 OSCEOLA ROAD EXT
2494040001850000	404-18.5	730 SWAMP ROAD
2494040001900000	404-19	20 BOY'S CLUB ROAD
2494040002010000	404-20.1	518 SWAMP ROAD
2494040002020000	404-20.2	0 BOYS CLUB ROAD
2494040002100000	404-21	SWAMP ROAD REAR
2494040002200000	404-22	0 SWAMP ROAD REAR
2494040002300000	404-23	70 CEMETERY ROAD



2494040002400000	404-24	365 SWAMP ROAD
2494040002420000	404-24.2	0 SWAMP ROAD
2494040002430000	404-24.3	0 OFF SWAMP ROAD
2494040002440000	404-24.4	0 OFF SWAMP ROAD
2494040002450000	404-24.5	0 SWAMP ROAD
2494040002500000	404-25	495 SWAMP ROAD
2494040002600000	404-26	465 SWAMP ROAD
2494040002700000	404-27	575 SWAMP ROAD
2494040002710000	404-27.1	81 YOKUN ROAD
2494040002800000	404-28	0 YOKUN ROAD
2494040003010000	404-30.1	0 YOKUN ROAD
2494040003500000	404-35	135 VIEW DRIVE
2494040003600000	404-36	157 VIEW DRIVE
2494040003700000	404-37	0 VIEW DRIVE
2494040003800000	404-38	197 VIEW DRIVE
2494040003900000	404-39	209 VIEW DRIVE
2494040004000000	404-40	239 VIEW DRIVE
2494040004100000	404-41	249 VIEW DRIVE
2494040005700000	404-57	YOKUN ROAD
2494040005800000	404-58	0 YOKUN ROAD
2494040005900000	404-59	0 YOKUN ROAD
2494040006600000	404-66	252 YOKUN ROAD
2494040006900000	404-69	184 YOKUN ROAD
2494040007000000	404-70	156 YOKUN ROAD
2494040007010000	404-70.1	0 SWAMP ROAD
2494040007100000	404-71	0 YOKUN ROAD
2494040007110000	404-71.1	12 YOKUN ROAD
2494040007200000	404-72	771 SWAMP ROAD
2494040007210000	404-72.1	49 OSCEOLA ROAD
2494040007220000	404-72.2	701 SWAMP ROAD
2494040007230000	404-72.3	0 SWAMP ROAD
2494040007240000	404-72.4	615 SWAMP ROAD
2494040007250000	404-72.5	0 SWAMP ROAD
2494040007260000	404-72.6	35 OSCEOLA ROAD
2494040007300000	404-73	81 OSCEOLA ROAD
2494040007400000	404-74	115 OSCEOLA ROAD
2494040007500000	404-75	149 OSCEOLA ROAD
2494040007600000	404-76	173 OSCEOLA ROAD
2494040009500000	404-95	253 OSCEOLA NOTCH ROAD
2494040009600000	404-96	0 OSCEOLA ROAD
2494040009700000	404-97	0 OSCEOLA ROAD
2494040009800000	404-98	0 OSCEOLA ROAD
2494040009810000	404-98.1	530 OSCEOLA ROAD
2494040010700000	404-107	251 EAST ROAD
2494040011000000	404-110	499 EAST ROAD

2494050001100000	405-11	0 CANAAN ROAD
2494050001200000	405-12	35 WEST ROAD
2494050001800000	405-18	346 CANAAN ROAD
2494050001810000	405-18.1	0 CANAAN ROAD
2494050001820000	405-18.2	0 CANAAN ROAD
2494050001900000	405-19	282 CANAAN ROAD
2494050002000000	405-20	188 CANAAN ROAD
2494050004000000	405-40	1053 STATE ROAD
2494050004100000	405-41	1101 STATE ROAD
2494050004200000	405-42	0 STATE ROAD
2494050004300000	405-43	0 STATE ROAD
2494050004400000	405-44	21 SUMMIT ROAD
2494050004500000	405-45	47 SUMMIT ROAD
2494050004600000	405-46	65 SUMMIT ROAD
2494050004700000	405-47	111 SUMMIT ROAD
2494050005900000	405-59	0 STATE ROAD
2494050006000000	405-60	0 DUBLIN ROAD
2494050006100000	405-61	601 DUBLIN ROAD
2494050006210000	405-62.1	633 DUBLIN ROAD
2494050006600000	405-66	551 SUMMIT ROAD
2494050006700000	405-67	0 SUMMIT ROAD
2494050006800000	405-68	687 SUMMIT ROAD
2494050006900000	405-69	741 SUMMIT ROAD
2494050007000000	405-70	0 SUMMIT ROAD
2494050007800000	405-78	995 DUBLIN ROAD
2494050007900000	405-79	1033 DUBLIN ROAD
2494050008000000	405-80	0 DUBLIN ROAD
2494050008100000	405-81	0 SLEEPY HOLLOW ROAD
2494050008200000	405-82	0 SLEEPY HOLLOW ROAD
2494050008300000	405-83	649 SLEEPY HOLLOW ROAD
2494050008310000	405-83.1	721 SLEEPY HOLLOW ROAD
2494050008320000	405-83.2	785 SLEEPY HOLLOW ROAD
2494050008330000	405-83.3	649 SLEEPY HOLLOW ROAD
2494050008400000	405-84	0 SUMMIT ROAD
2494050008500000	405-85	0 SWAMP ROAD
2494050008700000	405-87	0 SWAMP ROAD
2494050008800000	405-88	1305 SWAMP ROAD
2494050008900000	405-89	1335 SWAMP ROAD
2494050009000000	405-90	1371 SWAMP ROAD
2494050009100000	405-91	1379 SWAMP ROAD
2494050009110000	405-91.1	0 SWAMP ROAD
2494050009200000	405-92	0 SLEEPY HOLLOW ROAD
2494050009300000	405-93	2 MARCH HARE ROAD
2494050009400000	405-94	1380 SLEEPY HOLLOW ROAD
2494050009500000	405-95	0 DUBLIN ROAD



2494050009600000	405-96	0 SLEEPY HOLLOW ROAD
2494050009700000	405-97	0 SLEEPY HOLLOW ROAD
2494050009800000	405-98	1018 DUBLIN ROAD
2494050009900000	405-99	0 SUMMIT ROAD
2494050010100000	405-101	178 SUMMIT ROAD
2494050010200000	405-102	176 SUMMIT ROAD
2494050010300000	405-103	0 SUMMIT ROAD
2494050010400000	405-104	0 SUMMIT ROAD
2494050010600000	405-106	40 SUMMIT ROAD
2494050010800000	405-108	1455 STATE ROAD
2494050011120000	405-111.2	571 DUBLIN ROAD
2494050011500000	405-115	121 SLEEPY HOLLOW ROAD
2494050011600000	405-116	0 SLEEPY HOLLOW ROAD
2494050011700000	405-117	148 SLEEPY HOLLOW ROAD
2494050011800000	405-118	120 SLEEPY HOLLOW ROAD
2494050012600000	405-126	1665 STATE ROAD
2494050012700000	405-127	1707 STATE ROAD
2494060000300000	406-3	0 WEST ROAD
2494060001400000	406-14	161 CUNNINGHAM HILL ROAD
2494060002900000	406-29	474 CANAAN ROAD
2494070004000000	407-40	355 ROSSITER ROAD
2494070004100000	407-41	399 ROSSITER ROAD
2494070004200000	407-42	425 ROSSITER ROAD
2494070004300000	407-43	475 ROSSITER ROAD
2494070004400000	407-44	519 ROSSITER ROAD
2494070004500000	407-45	ROSSITER ROAD
2494070004900000	407-49	ROSSITER ROAD
2494070005000000	407-50	638 ROSSITER ROAD
2494070005100000	407-51	490 ROSSITER ROAD
2494070005200000	407-52	484 ROSSITER ROAD
2494070005300000	407-53	0 ROSSITER ROAD
2494070005410000	407-54.1	430 WEST ROAD
2494070005420000	407-54.2	0 WEST ROAD
2494070005430000	407-54.3	0 WEST ROAD
2494070005440000	407-54.4	0 WEST ROAD
2494070005450000	407-54.5	0 WEST ROAD
2494070005510000	407-55.1	350 WEST ROAD
2494080000000000		
2494080000100000	408-1	715 WEST ROAD
2494080001500000	408-15	0 FIRE HOUSE ROAD
2494080002100000	408-21	2080 STATE ROAD
2494080002200000	408-22	2044 STATE ROAD
2494080002300000	408-23	0 STATE ROAD OFF
2494080002400000	408-24	2042 STATE ROAD
2494080002500000	408-25	2040 STATE ROAD

2494080002600000	408-26	0 STATE ROAD OFF
2494080002900000	408-29	1968 STATE ROAD
2494080003000000	408-30	11 ROSSITER ROAD
2494080003100000	408-31	73 ROSSITER ROAD
2494080003200000	408-32	0 ROSSITER ROAD
2494080003400000	408-34	201 ROSSITER ROAD
2494080003410000	408-34.1	161 ROSSITER ROAD
2494080003500000	408-35	243 ROSSITER ROAD
2494080003600000	408-36	331 ROSSITER ROAD WEST ROAD
2494080003700000	408-37	238 ROSSITER ROAD
2494080003800000	408-38	160 ROSSITER ROAD
2494080003900000	408-39	140 ROSSITER ROAD
2494080004000000	408-40	96 ROSSITER ROAD
2494080004100000	408-41	10 ROSSITER ROAD
2494080004110000	408-41.1	0 STATE ROAD
2494080004200000	408-42	1778 STATE ROAD
2494080004400000	408-44	0 STATE ROAD
2494080004500000	408-45	0 STATE ROAD
2494080004600000	408-46	0 STATE ROAD
2494080005000000	408-50	1921 STATE ROAD
2494080005100000	408-51	1987 STATE ROAD
2494080005200000	408-52	2019 STATE ROAD
2494080005300000	408-53	2079 STATE ROAD
2494080005400000	408-54	2089 STATE ROAD
2494080005600000	408-56	STATE ROAD
2494080005900000	408-59	115 LENOX ROAD
2494080006000000	408-60	125 LENOX ROAD
2494080006100000	408-61	153 LENOX ROAD
2494080006200000	408-62	169 LENOX ROAD
2494080006300000	408-63	201 LENOX ROAD
2494080006400000	408-64	253 LENOX ROAD
2494080006500000	408-65	0 LENOX ROAD
2494080006600000	408-66	341 LENOX ROAD
2494080007300000	408-73	1568 DUBLIN ROAD
2494080007400000	408-74	0 DUBLIN ROAD
2494080007500000	408-75	1490 DUBLIN ROAD
2494080008200000	408-82	0 DUBLIN ROAD
2494080008300000	408-83	1645 DUBLIN ROAD
2494080008400000	408-84	1653 DUBLIN ROAD
2494080008500000	408-85	1691 DUBLIN ROAD
2494080008600000	408-86	1699 DUBLIN ROAD
2494080008800000	408-88	429 LENOX ROAD
2494080008900000	408-89	493 LENOX ROAD
2494080009000000	408-90	627 LENOX ROAD
2494080009100000	408-91	1806 SWAMP ROAD



2494080009200000	408-92	1772 SWAMP ROAD
2494080009312000	408-93.12	1740 SWAMP ROAD
2494080009313000	408-93.13	0 CASTAGNA WAY
2494080009510000	408-95.1	0 SWAMP ROAD
2494080009800000	408-98	0 SWAMP ROAD
2494080010010000	408-100.1	0 SWAMP ROAD
2494080010400000	408-104	1130 EAST ROAD
2494080010420000	408-104.2	0 SWAMP ROAD
2494080010430000	408-104.3	0 EAST ROAD
2494080011400000	408-114	945 LENOX ROAD
2494080011500000	408-115	1055 LENOX ROAD
2494080011700000	408-117	1125 LENOX ROAD
2494080011701000	408-117.1	0 LENOX ROAD
2494080012900000	408-129	800 LENOX ROAD
2494080013000000	408-130	1993 SWAMP ROAD
2494080013100000	408-131	2017 SWAMP ROAD
2494080013200000	408-132	2041 SWAMP ROAD
2494080013300000	408-133	2061 SWAMP ROAD
2494080014610000	408-146.1	0 DUBLIN ROAD
2494080015000000	408-150	2176 SWAMP ROAD
2494080015100000	408-151	2160 SWAMP ROAD
2494080015300000	408-153	2116 SWAMP ROAD
2494080015400000	408-154	2100 SWAMP ROAD
2494080015500000	408-155	2088 SWAMP ROAD
2494080015600000	408-156	2078 SWAMP ROAD
2494080015900000	408-159	1994 SWAMP ROAD
2494080016000000	408-160	1974 SWAMP ROAD
2494080016200000	408-162	1888 SWAMP ROAD
2494080016300000	408-163	608 LENOX ROAD
2494080016400000	408-164	430 LENOX ROAD
2494080016410000	408-164.1	484 LENOX ROAD
2494080016420000	408-164.2	510 LENOX ROAD
2494080016430000	408-164.3	460 LENOX ROAD
2494080016500000	408-165	0 LENOX ROAD
2494080016600000	408-166	1799 DUBLIN ROAD
2494080016700000	408-167	1817 DUBLIN ROAD
2494080016800000	408-168	1849 DUBLIN ROAD
2494080016900000	408-169	1867 DUBLIN ROAD
2494080017000000	408-170	1905 DUBLIN ROAD
2494080017100000	408-171	1921 DUBLIN ROAD
2494080017200000	408-172	1991 DUBLIN ROAD
2494080017300000	408-173	2015 DUBLIN ROAD
2494080017400000	408-174	2055 DUBLIN ROAD
2494080017600000	408-176	2151 DUBLIN ROAD
2494080017900000	408-179	2034 DUBLIN ROAD

2494080018000000	408-180	1986 DUBLIN ROAD
2494080018020000	408-180.2	0 DUBLIN ROAD
2494080018200000	408-182	1812 DUBLIN ROAD
2494080018300000	408-183	1806 DUBLIN ROAD
2494080018400000	408-184	0 DUBLIN ROAD
2494080018500000	408-185	1750 DUBLIN ROAD
2494080018600000	408-186	350 LENOX ROAD
2494080018700000	408-187	308 LENOX ROAD
2494080018800000	408-188	268 LENOX ROAD
2494080018900000	408-189	0 LENOX ROAD
2494080019000000	408-190	0 LENOX ROAD OFF
2494080019100000	408-191	186 LENOX ROAD
2494080019110000	408-191.1	230 LENOX ROAD
2494080019120000	408-191.2	0 LENOX ROAD
2494080019500000	408-195	0 LENOX ROAD
2494080019600000	408-196	2171 STATE ROAD
2494080019800000	408-198	0 STATE ROAD
2494080020300000	408-203	2309 STATE ROAD
2494080020400000	408-204	49 CONE HILL ROAD
2494080020500000	408-205	85 CONE HILL ROAD
2494090000100000	409-1	748 EAST ROAD
2494090000200000	409-2	730 EAST ROAD
2494090000300000	409-3	0 EAST ROAD
2494090000500000	409-5	552 EAST ROAD
2494090000600000	409-6	749 OSCEOLA ROAD
2494090000601000	409-6.1	0 OSCEOLA ROAD
2494090000602000	409-6.2	0 OSCEOLA ROAD
2494090000603000	409-6.3	OSCEOLA ROAD
2494090000604000	409-6.4	0 OSCEOLA ROAD
2494090000910000	409-9.1	760 OSCEOLA ROAD
2494090000920000	409-9.2	660 OSCEOLA ROAD
2494090000930000	409-9.3	0 OSCEOLA ROAD
2494090001000000	409-10	618 OSCEOLA ROAD
2494090001100000	409-11	572 OSCEOLA ROAD
2494090001200000	409-12	0 EAST ROAD
2494090001300000	409-13	591 EAST ROAD
2494090001400000	409-14	621 EAST ROAD
2494090001500000	409-15	675 EAST ROAD
2494090001600000	409-16	0 EAST ROAD
2494090001700000	409-17	705 EAST ROAD
2494090001800000	409-18	727 EAST ROAD
2494090001810000	409-18.1	0 OSCEOLA ROAD
2494090001820000	409-18.2	0 EAST ROAD
2494090001900000	409-19	751 EAST ROAD
2494090002000000	409-20	0 EAST ROAD



2494090002100000	409-21	831 EAST ROAD
2494090002200000	409-22	851 EAST ROAD
2494090002300000	409-23	885 EAST ROAD
2494090002400000	409-24	897 EAST ROAD
2494090002500000	409-25	15 RESERVOIR ROAD
2494090002600000	409-26	53 RESERVOIR ROAD
2494090002700000	409-27	RESERVOIR ROAD
2494090002800000	409-28	161 RESERVOIR ROAD
2494090002900000	409-29	RESERVOIR ROAD
2494090003000000	409-30	0 RESERVOIR ROAD
2494090003200000	409-32	0 RESERVOIR ROAD
2494090003300000	409-33	0 LENOX ROAD
2494100000100000	410-1	0 LENOX ROAD
2494100000200000	410-2	0 LENOX ROAD
2494110000800000	411-8	424 CONE HILL ROAD
2494110000900000	411-9	426 CONE HILL ROAD
2494110001000000	411-10	CONE HILL ROAD
2494110001100000	411-11	350 CONE HILL ROAD
2494110001200000	411-12	CONE HILL ROAD
2494110001300000	411-13	256 CONE HILL ROAD
2494110001400000	411-14	257 CONE HILL ROAD
2494110001500000	411-15	269 CONE HILL ROAD
2494110001600000	411-16	317 CONE HILL ROAD
2494110001700000	411-17	337 CONE HILL ROAD
2494110001800000	411-18	0 CONE HILL ROAD
2494110001900000	411-19	501 CONE HILL ROAD
2494110002400000	411-24	0 SWAMP ROAD
2494110002500000	411-25	0 SWAMP ROAD
2494110002600000	411-26	2722 SWAMP ROAD
2494110002700000	411-27	2700 SWAMP ROAD
2494110002800000	411-28.1	2650 SWAMP ROAD
2494110002900000	411-29	0 SWAMP ROAD
2494110003000000	411-30	2546 SWAMP ROAD
2494110003010000	411-30.1	2562 SWAMP ROAD
2494110003020000	411-30.2	391 CONE HILL ROAD
2494110003030000	411-30.3	0 CONE HILL ROAD
2494110003040000	411-30.4	0 CONE HILL ROAD
2494110003100000	411-31	2490 SWAMP ROAD
2494110003200000	411-32	2460 SWAMP ROAD
2494110003300000	411-33	0 SWAMP ROAD
2494110003400000	411-34	2190 DUBLIN ROAD
2494110003600000	411-36	2365 SWAMP ROAD
2494110003700000	411-37	2399 SWAMP ROAD
2494110003800000	411-38	51 STEVENS GLEN ROAD
2494110004000000	411-40	293 STEVENS GLEN ROAD

2494110004600000	411-46	256 STEVENS GLEN ROAD
2494110004700000	411-47	206 STEVENS GLEN ROAD
2494110004800000	411-48	STEVENS GLEN ROAD
2494110004900000	411-49	0 STEVENS GLEN ROAD
2494110005000000	411-50	76 STEVENS GLEN ROAD
2494110005100000	411-51	STEVENS GLEN ROAD
2494110005110000	411-51.1	STEVENS GLEN ROAD
2494110005120000	411-51.2	STEVENS GLEN ROAD
2494110005200000	411-52	2533 SWAMP ROAD
2494110005300000	411-53	0 SWAMP ROAD
2494110005400000	411-54	164 LENOX BRANCH ROAD
2494110005500000	411-55	0 LENOX BRANCH ROAD
2494110005600000	411-56	0 LENOX BRANCH ROAD
2494110005700000	411-57	0 LENOX BRANCH ROAD
2494110005800000	411-58	LENOX ROAD
2494110005900000	411-59	1414 LENOX ROAD
2494110006000000	411-60	1404 LENOX ROAD
2494110006100000	411-61	1344 LENOX ROAD
2494110006200000	411-62	1310 LENOX ROAD
2494110006300000	411-63	1292 LENOX ROAD
2494110006400000	411-64	1276 LENOX ROAD
2494110006500000	411-65	131 TURKEY TROT ROAD
2494110006600000	411-66	TURKEY TROT ROAD
2494110006700000	411-67	161 TURKEY TROT ROAD
2494110006800000	411-68	160 TURKEY TROT ROAD
2494110006900000	411-69	150 TURKEY TROT ROAD
2494110007000000	411-70	128 TURKEY TROT ROAD
2494110007610000	411-76.1	1181 LENOX ROAD
2494110007620000	411-76.2	0 LENOX ROAD
2494110007630000	411-76.3	1271 LENOX ROAD
2494110007800000	411-78	1301 LENOX ROAD
2494110007900000	411-79	1339 LENOX ROAD
2494110008000000	411-80	LENOX ROAD
2494110008100000	411-81	LENOX ROAD
2494110008200000	411-82	LENOX ROAD
2494110008300000	411-83	1520 LENOX ROAD
2491010010100000	101-101	168 CHESTNUT STREET
2491010013700000	101-137	279 SHORE ROAD
2491010015600000	101-156	220 SHORE ROAD
2491010012800000	101-128	201 SHORE ROAD
2491020003600000	102-36	76 LAKE ROAD EXT.
2491010001200000	101-12	OAK ROAD
2491040003800000	104-38	20 EAST BEACH ROAD
2491040001800000	104-18	23 ELM ROAD
2491030001000000	103-10	311 SWAMP ROAD



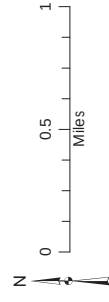
2494040001860000	404-18.6	0 SWAMP ROAD
2494040000900000	404-9	0 EAST ROAD
2494040006300000	404-63	0 YOKUN ROAD MONUMENT CIRCLE
2494050010700000	405-107	1385 STATE ROAD
2494040005500000	404-55	0 YOKUN ROAD
2494080007900000	408-79	1350 DUBLIN ROAD
2494080004700000	408-47	1831 STATE ROAD
2494090000700000	409-7	OSCEOLA ROAD
2494080003300000	408-33	0 ROSSITER ROAD
2494070003600000	407-36	720 WEST ROAD
2494080001800000	408-18	22 MEADOW VIEW LANE
2494080016110000	408-161.1	0 SWAMP ROAD
2494080018010000	408-180.1	1888 DUBLIN ROAD
2494080015700000	408-157	2050 SWAMP ROAD

Town of Richmond

Open Space and Recreation Plan

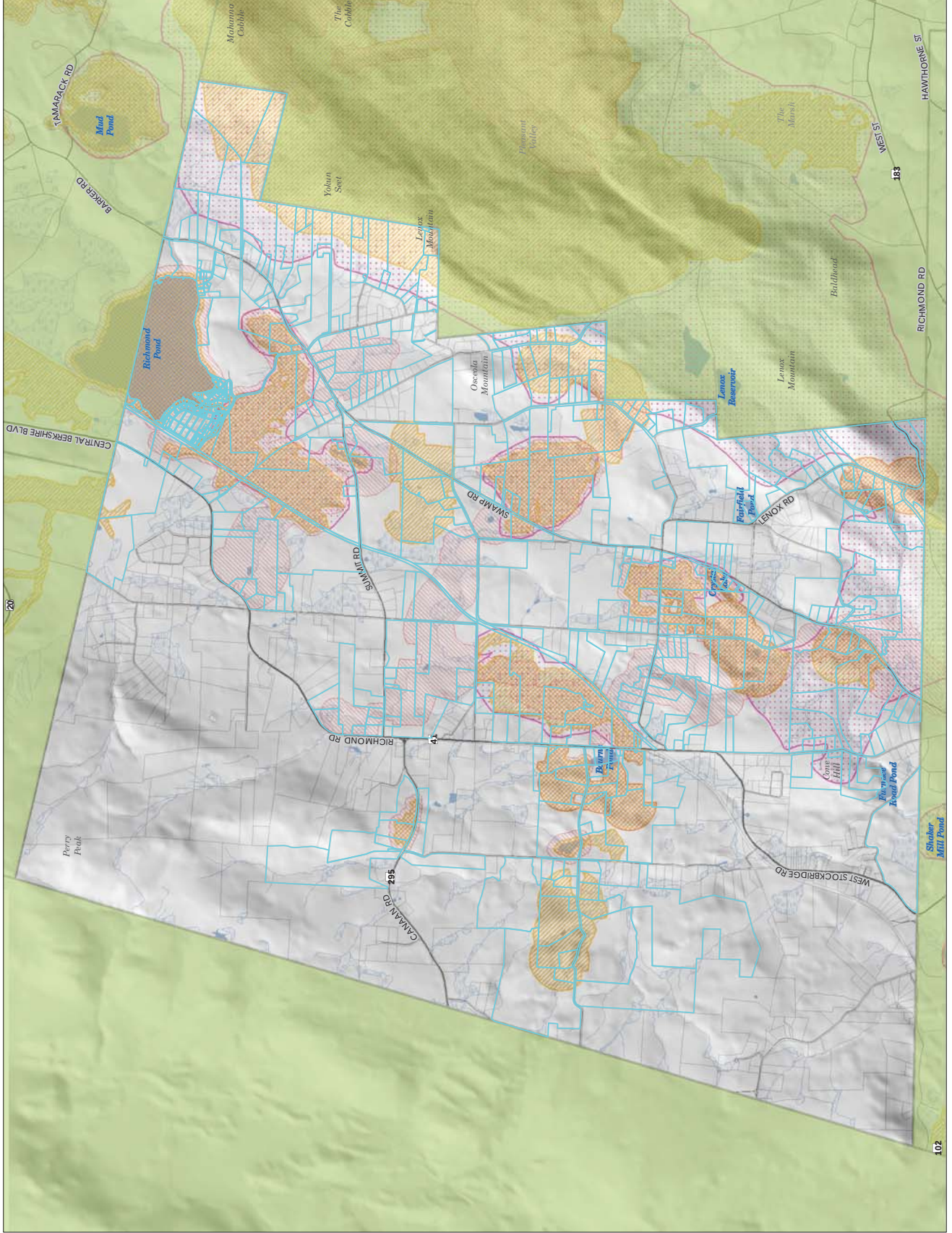
Map I: Priority Environmental Areas

- NHESP Priority Habitats of Rare Species
- Priority Conservation Area
- BioMap2 Core Habitat
- Parcels
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water



This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map is based on the best available data and the municipality may have supplied portions of this data.

Berkshire Regional Planning Commission

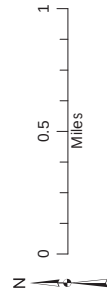


Town of Richmond

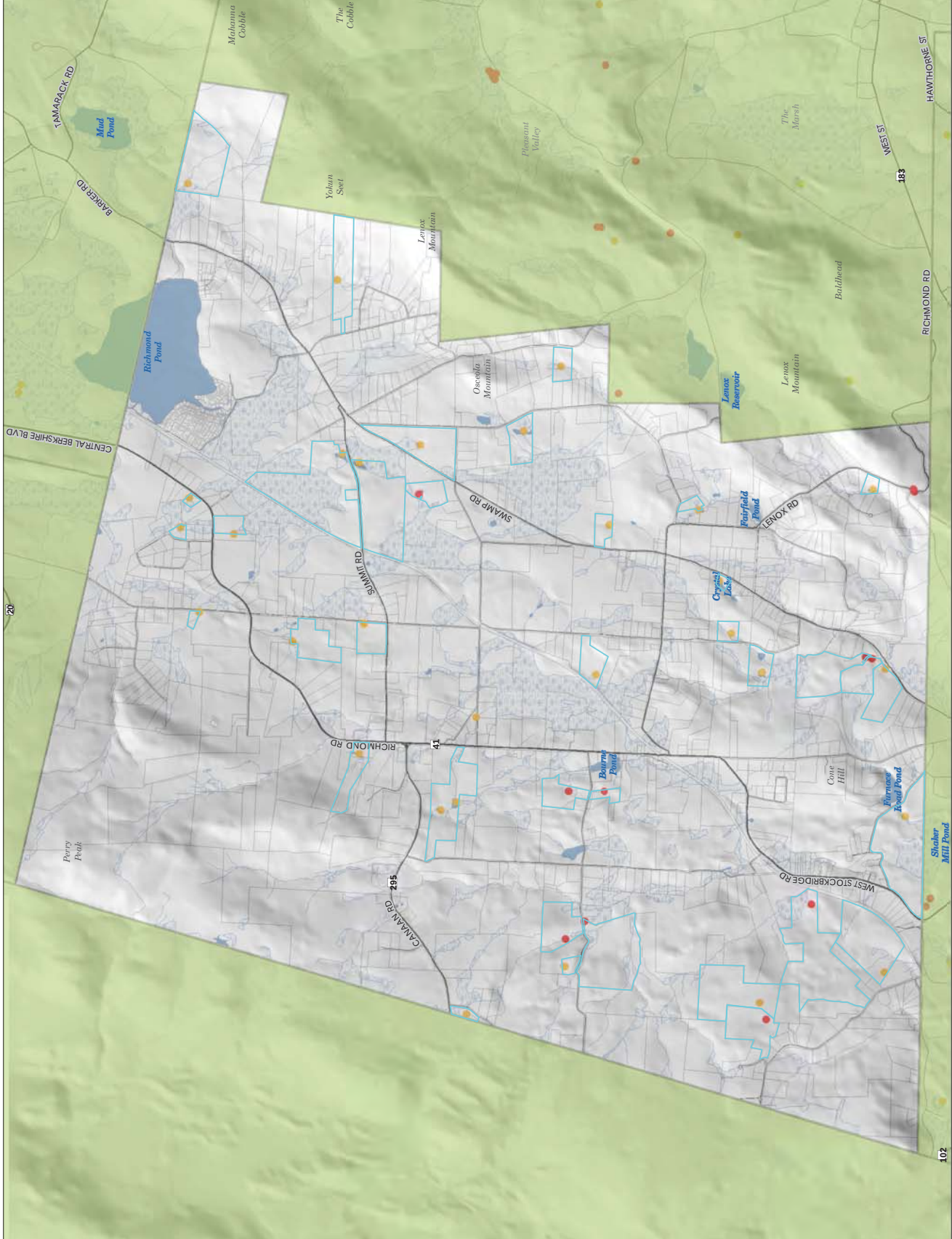
Open Space and Recreation Plan

MAP J: Vernal Pools

- Certified Vernal Pool
- Potential Vernal Pool
- Parcels
- Towns
- Interstate
- Major Road
- Minor Road
- Local Road
- Stream
- Wetland
- Open Water



This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or other purposes. The map is based on data supplied by the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Department of Environmental Protection (MassDEP). The map is not a warranty, representation, or endorsement by the Commission or the municipality may have supplied portions of this data.



APPENDIX C: ADA SELF EVALUATION



TOWN OF RICHMOND

Town Hall

1529 State Road

Richmond, Massachusetts 01254

Main Office: (413) 698-3355

Fax: (413) 698-3272

To whom it may concern:

The Town of Richmond is committed to providing access to its facilities and programs to all citizens, including those with disabilities. To confirm this commitment, the Town has appointed Town Administrator, Matthew M. Kerwood as its ADA Coordinator. In this role, Mr. Kerwood is responsible for ensuring the Town's compliance with the ADA, investigating complaints related to accessibility and recommending ways to address complaints.

The Town of Richmond does not discriminate on the basis of disability, and public notice of this policy has been in town hall and in five locations throughout town.

Matthew M. Kerwood
ADA Coordinator



TOWN OF RICHMOND

Town Hall

1529 State Road

Richmond, Massachusetts 01254

Main Office: (413) 698-3355

Fax: (413) 698-3272

Town of Richmond 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"). It 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 Richmond. The Town'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:

Matthew M. Kerwood
Town Administrator/ADA Coordinator
1529 State Road
Richmond, MA 01254

Within 15 calendar days after receipt of the complaint, Mr. Kerwood or his designee will meet with the complainant to discuss the complaint and the possible resolutions.

Within 15 calendar days of the meeting, Mr. Kerwood or his designee 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 Richmond and offer options for substantive resolution of the complaint.

If the response by Mr. Kerwood or his designee 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 Mr. Kerwood or his designee, appeals to the Board of Selectmen, and responses from these two offices will be retained by the Town of Richmond for at least three years.



TOWN OF RICHMOND

Town Hall

1529 State Road

Richmond, Massachusetts 01254

Main Office: (413) 698-3355

Fax: (413) 698-3272

Richmond does not discriminate on the basis of disability in admission to, access to, or in the operation of its programs, services or activities. Richmond does not discriminate on the basis of disability in its hiring or employment practices.

This notice is provided as required by Title II of the Americans with Disabilities Act (ADA) of 1990.

Questions, concerns, complaints or requests for additional information regarding the ADA may be forwarded to Richmond's designated ADA coordinator.

Matthew M. Kerwood

Town Administrator

Town Hall

1529 State Road

Richmond, MA 01254

(413) 698-3882 phone

(413) 698-3272 Fax

m.kerwood@richmondma.org

Office hours: M-F 9:00AM-5:00PM

Individuals who need auxiliary aids for effective communication in programs and services of Richmond are invited to make their needs and preferences known to the ADA coordinator.

This notice is available in large print, and audiotape from the ADA coordinator.



TOWN OF RICHMOND

Town Hall

1529 State Road

Richmond, Massachusetts 01254

Main Office: (413) 698-3355

Fax: (413) 698-3272

Program applicants, members of the general public, employees, job applicants, and others are entitled to participate in and benefit from all town programs, activities, and services without regard to disability.

Copies of this notice are available upon request in alternate print format such as large print, audiotape, and computer disk. The Town's grievance procedure, self-evaluation, as well as ADA policies, practices and procedures are also available upon request.

Contact:

Matthew M. Kerwood

ADA Coordinator

(413) 698-3882

1529 State Road

Richmond, MA 01254



TOWN OF RICHMOND

Town Hall

1529 State Road

Richmond, Massachusetts 01254

Main Office: (413) 698-3355

Fax: (413) 698-3272

The Town of Richmond is proud to be an equal opportunity employer and applicants are considered for all positions without regard to race, color, creed, religion, sex, national origin, age sexual preference, or the presence of a non-job related medical condition or handicap.

Matthew M. Kerwood
ADA Coordinator



TOWN OF RICHMOND

Town Hall

1529 State Road

Richmond, Massachusetts 01254

Main Office: (413) 698-3355

Fax: (413) 698-3272

PROGRAM ACCESSIBILITY

In developing the 2015-2020 Open Space and Recreation Plan, the Open Space Committee discussed the required recreation programs and lands inventory. Richmond maintains all of its recreation facilities and programs open to the general public and accessible to individuals with disabilities. The Town Hall has a ramp, the library and school have accessible entrances. The school has an elevator making all floors accessible to those with limited mobility.

Matthew M. Kerwood
ADA Coordinator

Richmond ADA Open Space and Recreation Transition Plan

A. Inventory of Open Spaces and Recreation Areas

Richmond School Playground



The only disabled access to the playground was through the school itself. The doors on the side of the school led out to a wooden ramp shown above. There are several issues with gaps at the beginning and the end of the ramp that may make wheelchair movement difficult.



The ramp leads to a paved path shown in the above photo. The path is of a steep grade and is rough in certain areas. Appropriate regrading of the path is needed to meet accessibility requirements.



At the bottom of the path, the connection to the playground has a large gap that would make wheelchair transitions difficult.



The playground equipment itself has a transition area that meets ADA requirements. Most likely, there are no pressing accessibility issues with the playground equipment.



There are many swings available on the swing set, although none that are ADA accessible. This would be a simple addition in order to improve accessibility at the recreation area.

Richmond Tennis Court



There is no accessible path to the tennis courts and the mowed grass path itself is of a very steep grade. The gate of the tennis court is also inaccessible and cannot be opened with a closed fist.

Richmond Town Beach



There are several accessibility recommendations that could be made at the Richmond Town Beach. There were no designated ADA designated parking spaces. The Town should designate ADA spaces in the lot with signage.

In addition, none of the picnic tables located throughout the park were wheelchair accessible, meaning there was not available space underneath the tables. The purchase and placement of at least one wheelchair accessible table could improve accessibility of the park.

The portable restroom was also not ADA accessible and the only public restroom available at the park. The restroom could be replaced with a larger more accessible one, allowing for use by those with disabilities and creating greater comfort for those without.

B. Transition Plan

Richmond Consolidated School Playground

Physical Obstacles	Actions to Be Taken	Date to Be Completed	Responsible Party
Height Gap on Wooden Ramp	Replace wooden ramp with one that allows for smooth transition	2021	School
Steep Paved Path	Repave / regrade path to meet accessibility requirements	2021	School
Gap at the end of the Paved Path	Repave path to allow for smooth transition	2021	School
No ADA Swing Set Options	Install or replace a swing with an appropriate ADA accessible swing or other accessible equipment	2021	School

Richmond Tennis Court

Physical Obstacles	Actions to Be Taken	Date to Be Completed	Responsible Party
No Accessible Path	Create a new accessible path to the entrance of the court	2021	DPW
Inaccessible Gate	Replace gate latch with one that can be opened with a closed fist	2021	DPW

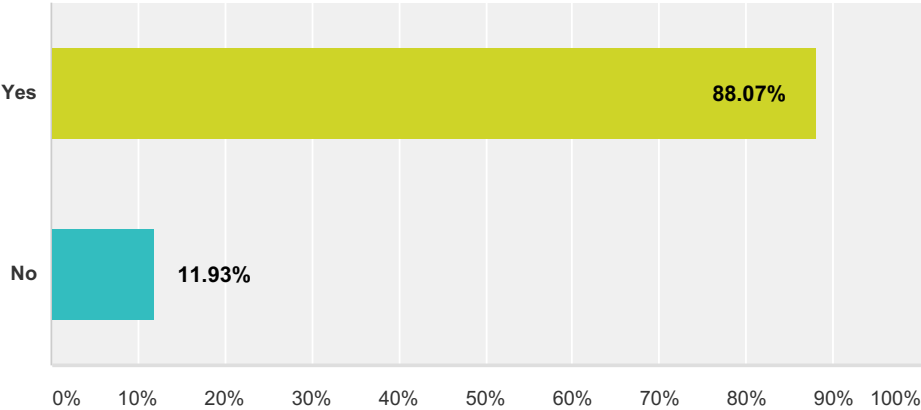
Richmond Town Beach

Physical Obstacles	Actions to Be Taken	Date to Be Completed	Responsible Party
Unmarked Parking Area	Designate ADA accessible parking spaces	2021	DPW
No ADA Accessible Picnic Tables	Purchase and install an ADA accessible table, preferably near a picnic grill	2021	DPW
Restroom Inaccessible	Replace portable restroom with an accessible one	2021	DPW

APPENDIX D: SURVEY RESULTS

Q1 Do you feel there is a need to preserve additional open space in the town of Richmond?

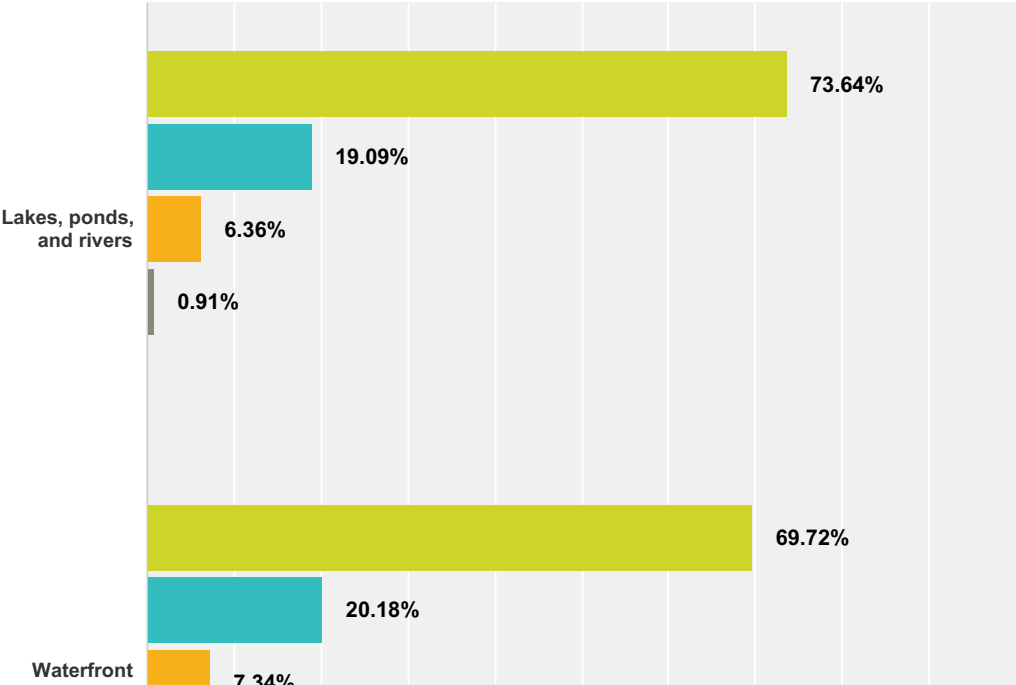
Answered: 109 Skipped: 4



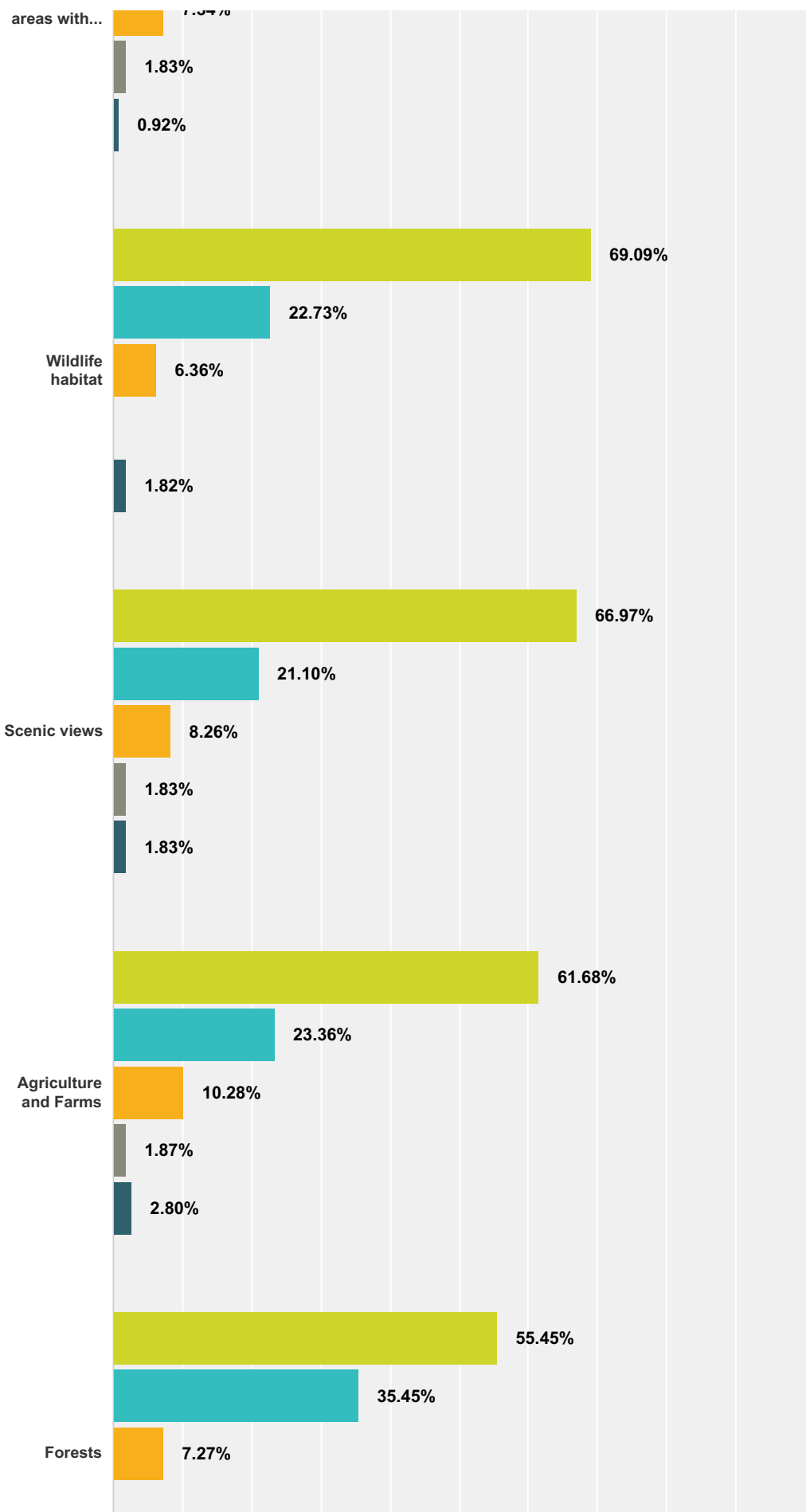
Answer Choices	Responses	
Yes	88.07%	96
No	11.93%	13
Total		109

Q2 How important is it for Richmond to preserve additional open space of the following types? (Please answer all)

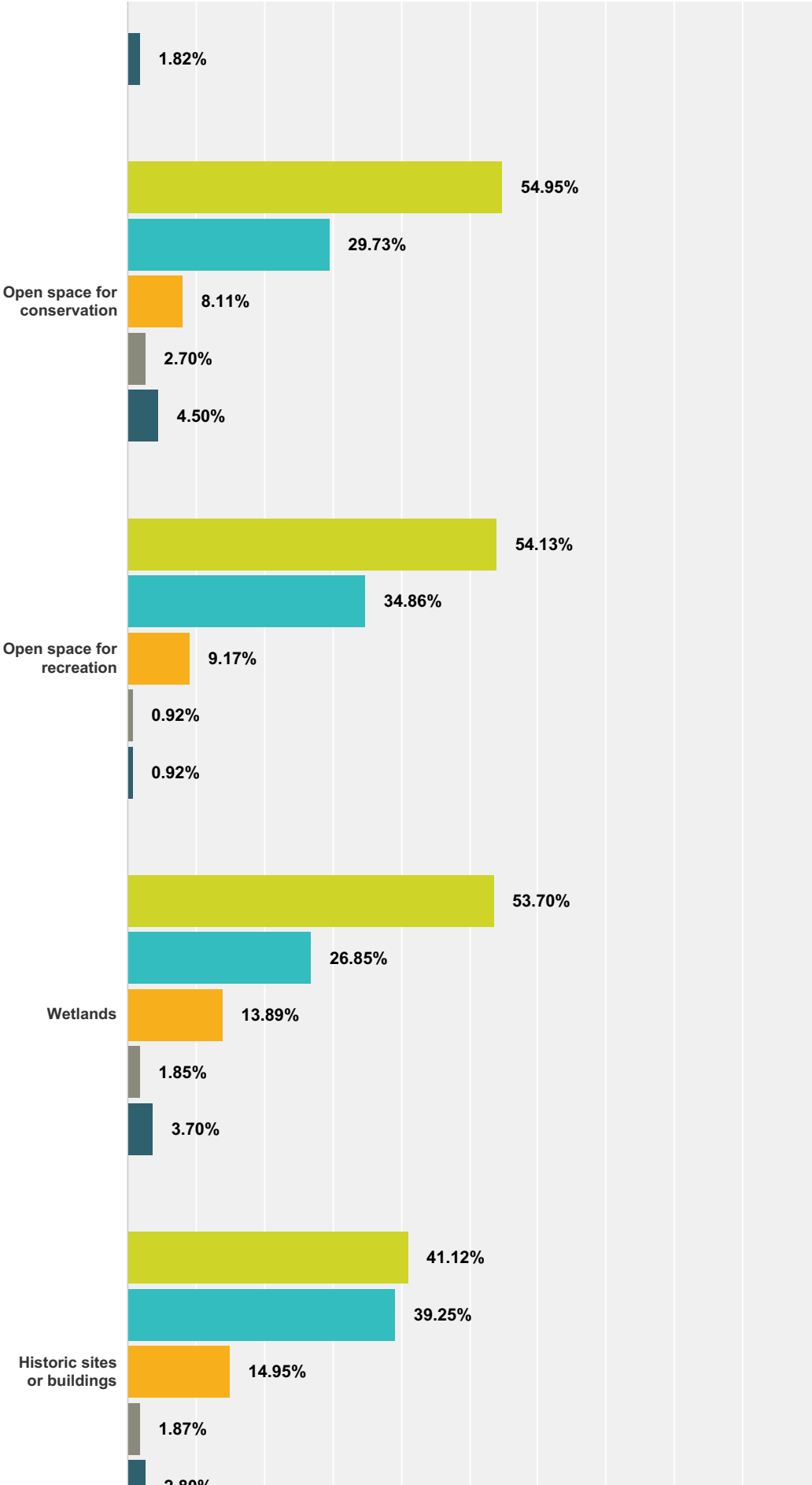
Answered: 111 Skipped: 2



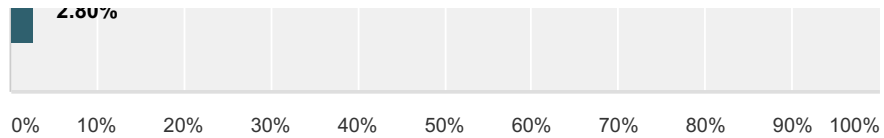
Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



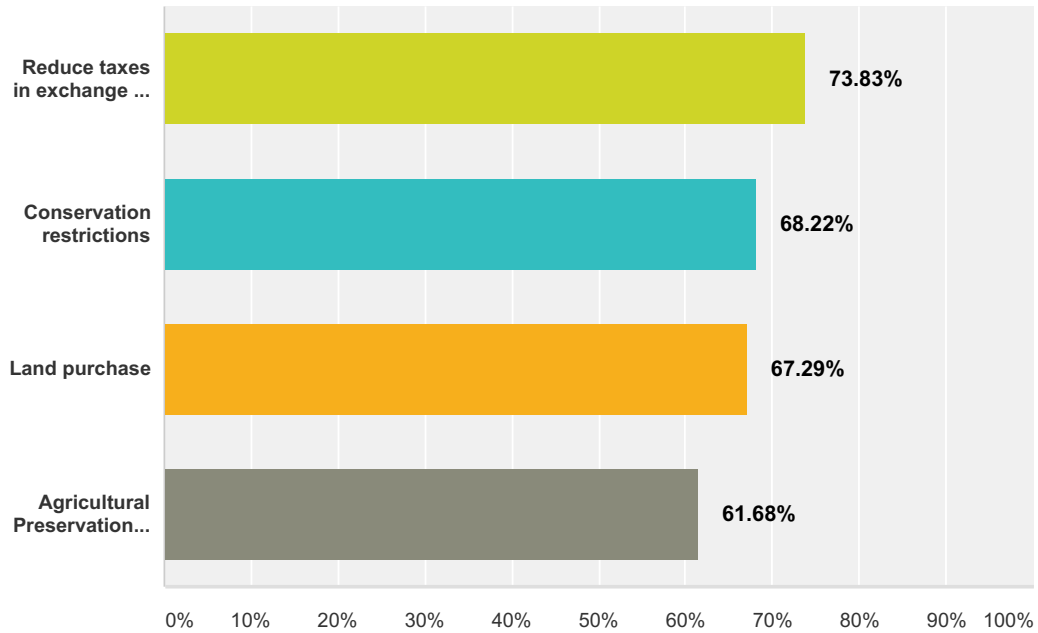
■ Most important
 ■ Somewhat important
 ■ Neither important or unimportant
 ■ Somewhat unimportant
 ■ Not important at all

	Most important	Somewhat important	Neither important or unimportant	Somewhat unimportant	Not important at all	Total
Lakes, ponds, and rivers	73.64% 81	19.09% 21	6.36% 7	0.91% 1	0.00% 0	110
Waterfront areas with public access	69.72% 76	20.18% 22	7.34% 8	1.83% 2	0.92% 1	109
Wildlife habitat	69.09% 76	22.73% 25	6.36% 7	0.00% 0	1.82% 2	110
Scenic views	66.97% 73	21.10% 23	8.26% 9	1.83% 2	1.83% 2	109
Agriculture and Farms	61.68% 66	23.36% 25	10.28% 11	1.87% 2	2.80% 3	107
Forests	55.45% 61	35.45% 39	7.27% 8	0.00% 0	1.82% 2	110
Open space for conservation	54.95% 61	29.73% 33	8.11% 9	2.70% 3	4.50% 5	111
Open space for recreation	54.13% 59	34.86% 38	9.17% 10	0.92% 1	0.92% 1	109
Wetlands	53.70% 58	26.85% 29	13.89% 15	1.85% 2	3.70% 4	108
Historic sites or buildings	41.12% 44	39.25% 42	14.95% 16	1.87% 2	2.80% 3	107

Q3 What land conservation tools should the Town of Richmond use to preserve additional open space? (Check all that apply)

Answered: 107 Skipped: 6

Richmond Open Space and Recreation Survey



Answer Choices	Responses
Reduce taxes in exchange for conservation of private land	73.83% 79
Conservation restrictions	68.22% 73
Land purchase	67.29% 72
Agricultural Preservation Restriction (APR)	61.68% 66
Total Respondents: 107	

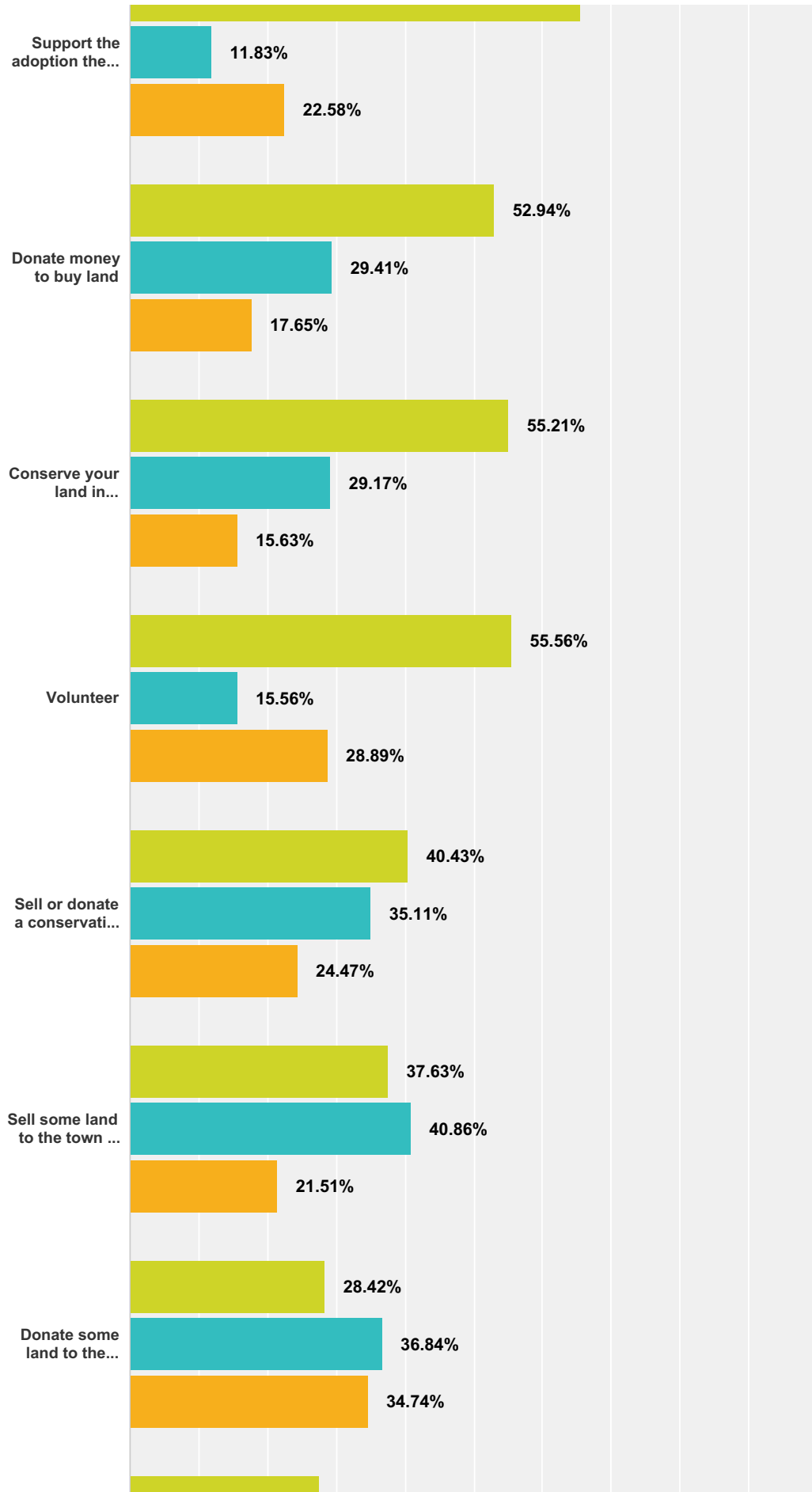
#	Other (please specify)	Date
1	these choices require prior knowledge that I don't have, what are the implications of each?	6/4/2015 10:12 PM
2	STOP TAKING LAND OFF THE TAX ROLLS AND RESTRICTING BUILDING	5/29/2015 3:57 PM
3	Community Rights Ordinance	5/29/2015 11:58 AM
4	buy land	5/26/2015 1:21 PM
5	Encourage landowners with large acreages to enter into Chapter 61 restrictions.	5/8/2015 2:00 PM
6	Partner with non-municipal organizations whose mission is open space conservation	4/26/2015 8:56 PM
7	None	4/24/2015 7:19 PM
8	Zoning	4/24/2015 2:25 PM
9	Nothing we already have too much land in the hands of the rich and the town that pay no taxes	4/24/2015 12:41 PM

Q4 To support the preservation of additional open space in Richmond, would you do the following?

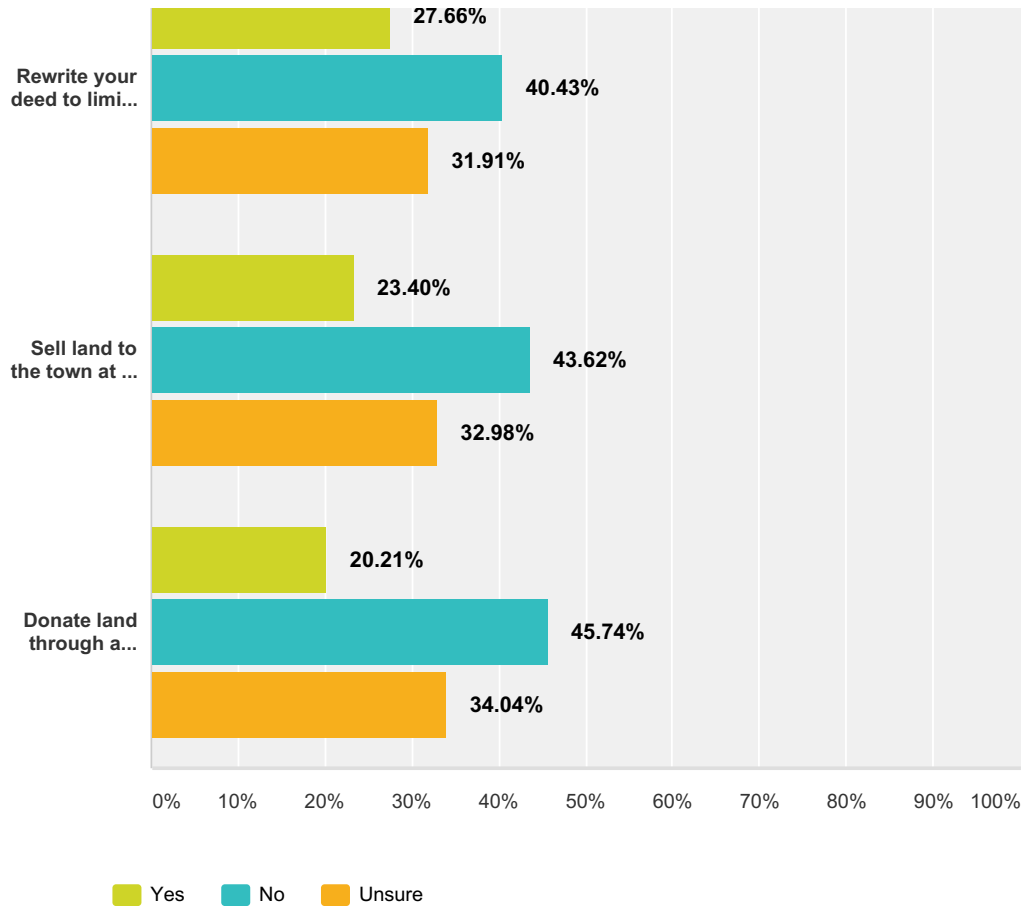
Answered: 108 Skipped: 5



Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



	Yes	No	Unsure	Total
Support the adoption the Community Preservation Act (CPA) by the town	65.59% 61	11.83% 11	22.58% 21	93
Donate money to buy land	52.94% 54	29.41% 30	17.65% 18	102
Conserve your land in exchange for reduced taxes	55.21% 53	29.17% 28	15.63% 15	96
Volunteer	55.56% 50	15.56% 14	28.89% 26	90
Sell or donate a conservation restriction to protect your land from future development	40.43% 38	35.11% 33	24.47% 23	94
Sell some land to the town at fair market value	37.63% 35	40.86% 38	21.51% 20	93
Donate some land to the town or a land trust	28.42% 27	36.84% 35	34.74% 33	95
Rewrite your deed to limit future development of your land	27.66% 26	40.43% 38	31.91% 30	94
Sell land to the town at a "bargain price" (less than fair market value)	23.40% 22	43.62% 41	32.98% 31	94
Donate land through a bequest in your will	20.21% 19	45.74% 43	34.04% 32	94

#	Other (please specify)	Date
---	------------------------	------

Richmond Open Space and Recreation Survey

1	I don't have any land to bargain with	5/22/2015 10:45 AM
2	Our land is only 2.5 acres, the minimum size for a house, which we have built, so most of these do not apply.	5/19/2015 4:41 PM
3	not in a financial position to donate land or otherwise reduce assets	5/13/2015 8:16 PM
4	view over malnati farm from east road	5/13/2015 12:45 PM
5	If I had more than 2.8 acres I would do more of the above!	5/13/2015 12:35 PM
6	We already are bounded by conservation land	5/5/2015 7:59 AM
7	Details on CPA please	4/26/2015 3:30 PM
8	Change zoning to enable cluster development	4/24/2015 2:25 PM

Q5 What is the single biggest threat to open space in Richmond? (List only one)

Answered: 83 Skipped: 30

#	Responses	Date
1	Residential Development subdivision development	6/9/2015 4:12 PM
2	Development Development	6/8/2015 10:44 AM
3	Pollution pollution	6/7/2015 8:35 PM
4	Nothing/Dont know Nothing that I can think of at the moment	6/5/2015 12:22 PM
5	Zoning Zoning changes	6/5/2015 11:23 AM
6	Development housing developments	6/5/2015 11:19 AM
7	Pollution Pollution	6/2/2015 10:48 AM
8	Residential Development Overbuilding housing	6/1/2015 4:56 PM
9	People / Greed / Apathy rich city peopls	5/29/2015 10:04 PM
10	Development swamp encroachment	5/29/2015 8:53 PM
11	Pipeline Fossil Fuel Infrastructure	5/29/2015 11:58 AM
12	Pipeline possible pipelines	5/29/2015 11:44 AM
13	Development Development	5/29/2015 11:01 AM
14	Residential Development Large Housing Developers	5/29/2015 10:26 AM
15	Residential Development Mc Mansions (10 in the last 5 10 years <1 mile from my house on Dublin Road!)	5/27/2015 9:37 AM
16	Development People who come in and want to develop open spaces for themselves or financial gain	5/26/2015 4:53 PM
17	People / Greed / Apathy make open land more important than people who want to live here	5/26/2015 1:21 PM
18	Residential Development Over-development (residential)	5/25/2015 5:38 PM
19	Residential Development McMansions	5/24/2015 1:34 PM
20	Pipeline gas pipelines	5/24/2015 11:08 AM
21	Loss of Town Character loss of who or what is Richmond	5/22/2015 6:15 PM
22	Development development of any kind	5/22/2015 10:57 AM
23	Lack of Access Not being able to use it	5/22/2015 10:45 AM
24	Development Commercial development	5/22/2015 10:38 AM

Richmond Open Space and Recreation Survey

25	Development McMansions	5/22/2015 10:34 AM
26	Pipeline Pipeline	5/20/2015 5:41 PM
27	Residential Development Second-home development	5/19/2015 4:41 PM
28	Development developers	5/19/2015 6:18 AM
29	Residential Development sale for development	5/18/2015 10:55 AM
30	People / Greed / Apathy non caring government	5/17/2015 12:43 PM
31	Residential Development building houses on open land	5/16/2015 12:08 PM
32	People / Greed / Apathy greed	5/15/2015 12:47 PM
33	Development new road construction	5/15/2015 10:36 AM
34	Zoning Re-zoning 2.5 acre restriction	5/15/2015 9:39 AM
35	Residential Development McMansions	5/13/2015 10:09 PM
36	Residential Development residential development	5/13/2015 8:16 PM
37	Zoning The current zoning law	5/13/2015 2:51 PM
38	Residential Development New Homes	5/13/2015 2:22 PM
39	Development careless development	5/13/2015 12:45 PM
40	Development development	5/13/2015 12:35 PM
41	Development development	5/13/2015 12:12 PM
42	Development Overdevelopment of privately owned land	5/10/2015 8:30 AM
43	Aging Population The aging population. If Richmond continues to morph into a retirement community for snow birds and other second homeowners, it is likely that larger acreages (i.e., farms and woodlots) will continue to be subdivided in order to cater to increasing demand among seniors/retirees who want to live a "rural-ish" existence without having to assume the responsibilities of managing a large parcel.	5/8/2015 2:00 PM
44	Development man's development of buildings	5/8/2015 10:51 AM
45	Fracking fracking—it will ruin all open spaces	5/6/2015 8:42 PM
46	Development Developments	5/6/2015 8:42 PM
47	Residential Development Mega mansions	5/5/2015 7:59 AM
48	Loss of Wetlands People who damage wetlands	5/1/2015 11:48 PM
49	Residential Development McMansions	5/1/2015 10:05 AM
50	Development development	4/30/2015 8:53 AM
51	Residential Development subdivisions & development	4/29/2015 8:49 AM
52	Residential Development Building new houses	4/29/2015 5:49 AM
53	Development Too much development!	4/27/2015 12:45 PM
54	Residential Development building condos	4/27/2015 10:56 AM
55	Residential Development mcmansions	4/27/2015 10:33 AM
56	Residential Development new housing	4/26/2015 8:56 PM
57	Development Development	4/26/2015 3:52 PM
58	Development development	4/26/2015 3:30 PM
59	Residential Development building new houses	4/26/2015 8:53 AM
60	Development Development	4/26/2015 8:45 AM

Richmond Open Space and Recreation Survey

61	Development Development	4/25/2015 8:23 AM
62	Development Development	4/24/2015 7:51 PM
63	Residential Development Housing development	4/24/2015 7:36 PM
64	Environmentalists Enviromentalists	4/24/2015 7:19 PM
65	Residential Development new homes taking over open space	4/24/2015 5:57 PM
66	Development OVER DEVELOPMENT OF PRIVATE PROPERTY	4/24/2015 5:46 PM
67	Development Zoning Development - particularly reduced-lot-sized development	4/24/2015 2:26 PM
68	Zoning Zoning to chop the road frontage and land into small parcels (already accomplished).	4/24/2015 2:25 PM
69	Residential Development New housing	4/24/2015 1:58 PM
70	Residential Development Building new homes instead of buying existing homes for sale	4/24/2015 1:38 PM
71	Loss of Farms Decreased farming	4/24/2015 1:29 PM
72	Development building and redeveloping	4/24/2015 1:08 PM
73	Lack of a plan Lack of an agreed upon plan.	4/24/2015 1:05 PM
74	Becoming Less Rural Becoming less rural	4/24/2015 12:59 PM
75	Development Overdevelopment	4/24/2015 12:57 PM
76	Development More building	4/24/2015 12:43 PM
77	Land Trust The Richmond Land Trust and their mismanagement is the biggest threat to open space in Richmond	4/24/2015 12:41 PM
78	Residential Development LARGE NEW HOMES	4/24/2015 12:31 PM
79	Residential Development Wealthy development	4/24/2015 12:29 PM
80	Residential Development Condos	4/24/2015 12:29 PM
81	Loss of Farms Loss of Farms	4/24/2015 12:29 PM
82	Residential Development second homes	4/24/2015 12:27 PM
83	Loss of Farms Loss of farms	4/24/2015 12:25 PM

Q6 What is your favorite open space in Richmond? (List only one)

Answered: 91 Skipped: 22

#	Responses	Date
1	Other my backyard	6/9/2015 4:12 PM
2	Hollow Fields BNRC at Perry's Peak Road	6/8/2015 10:44 AM
3	Richmond Pond Richmond pond	6/7/2015 8:35 PM
4	Other My own woods	6/5/2015 12:22 PM
5	Other Cow farm/ hill on Swamp	6/5/2015 11:23 AM
6	Malnati Farm malnati's farm (east road)	6/5/2015 11:19 AM
7	Olivia's Overlook Olivia's overlook hiking area	6/4/2015 10:12 PM
8	Hollow Fields Hollow Fields Reserve	6/2/2015 10:48 AM
9	Boynton Field Boynton's lot between East Rd. and Osceola Rd.	6/1/2015 4:56 PM

Richmond Open Space and Recreation Survey

10	East Road/Views from Rd. Farm off East Rd	5/31/2015 1:33 PM
11	All like them all	5/29/2015 10:04 PM
12	Richmond Pond Richmond Pond	5/29/2015 8:53 PM
13	Perry's Peak Perry's Peak	5/29/2015 11:58 AM
14	Lenox Road Lenox Road	5/29/2015 11:44 AM
15	Hollow Fields hollow Fields	5/29/2015 11:33 AM
16	Malnati Farm The farm at Swamp and Lenox	5/29/2015 11:01 AM
17	Steven's Glen Stephen's Glen	5/27/2015 9:37 AM
18	Malnati Farm Malnatis Farm	5/26/2015 4:53 PM
19	Hollow Fields hollow farm	5/26/2015 1:21 PM
20	Richmond Pond Richmond Shores	5/25/2015 5:38 PM
21	Richmond Pond Richmond pond	5/24/2015 1:34 PM
22	Orchard bartletts orchard	5/24/2015 11:08 AM
23	Perry's Peak Perrys peak	5/22/2015 8:11 PM
24	East Road/Views from Rd. East Rd area	5/22/2015 6:15 PM
25	Richmond Pond area around Richmond Pond	5/22/2015 10:57 AM
26	Fire Tower Old Fire tower off Osceola Road	5/22/2015 10:45 AM
27	East Road/Views from Rd. East Road	5/22/2015 10:38 AM
28	Richmond Pond Richmond Pond	5/22/2015 10:34 AM
29	Richmond Pond Richmond Pond	5/19/2015 4:41 PM
30	Malnati Farm Richmond Pond	5/19/2015 8:59 AM
31	Malnati Farm The old Malnati farm on East Road	5/18/2015 10:55 AM
32	Richmond Pond Richmond Pond	5/17/2015 2:29 PM
33	East Road/Views from Rd. bench on East Road	5/17/2015 12:43 PM
34	Heron Rookery heron rookery	5/16/2015 12:08 PM
35	Richmond Pond Richmond Pond	5/15/2015 10:36 AM
36	Perry's Peak Perry's Peak area	5/15/2015 9:39 AM
37	Malnati Farm Malnati farm/Lenox Road	5/14/2015 10:09 PM
38	Lenox Mtn. Lenox Mountain	5/13/2015 10:09 PM
39	Malnati Farm malnati farm	5/13/2015 8:16 PM
40	East Road/Views from Rd. The view from the bench on EastRd.	5/13/2015 2:51 PM
41	Perry's Peak Perry's peak	5/13/2015 2:22 PM
42	Boynton Field boyton property	5/13/2015 12:45 PM
43	Sleepy Hollow Road Sleepy Hollow Road	5/13/2015 12:35 PM
44	Hollow Fields Hollow Fields	5/13/2015 12:12 PM
45	Richmond Pond Richmond Pond	5/10/2015 8:30 AM

Richmond Open Space and Recreation Survey

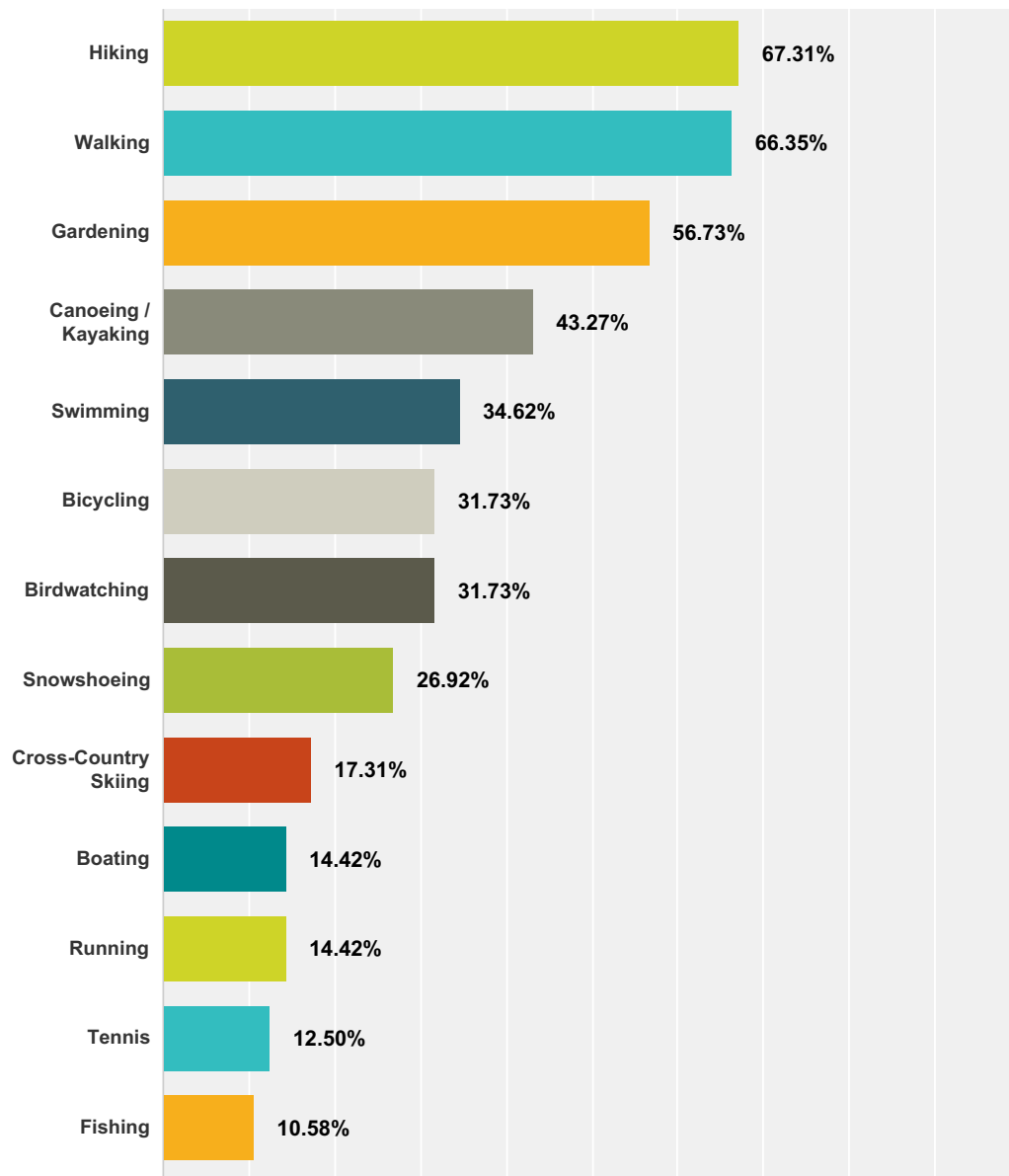
46	Perry's Peak Perry's Peak or the privately-own piece of former ag land on Sleepy Hollow Road that gets stocked with pheasants during the bird season..	5/8/2015 2:00 PM
47	Swamp Road Swamp road and Lenox Mt. Rd	5/8/2015 10:51 AM
48	Boynton Field Boynton Land Trust	5/6/2015 8:42 PM
49	Perry's Peak Perrys Peak	5/6/2015 8:42 PM
50	Boynton Field Boynton Field between Osceola and East Rd	5/5/2015 7:59 AM
51	Richmond Pond Richmond pond	5/1/2015 11:48 PM
52	Malnati Farm Malanatti Farm	5/1/2015 10:05 AM
53	Richmond Pond richmond pond and trails around it	4/30/2015 8:53 AM
54	Richmond Pond Richmond Pond's Watershed	4/29/2015 8:49 AM
55	Camp Marion White Camp Marion white	4/29/2015 5:49 AM
56	East Road/Views from Rd. East Rd	4/28/2015 11:31 AM
57	Richmond Pond Richmond Pond	4/28/2015 10:26 AM
58	East Road/Views from Rd. Views along East Road.	4/27/2015 12:45 PM
59	Camp Russell Camp Russell	4/27/2015 10:56 AM
60	Dirt Roads Open Fields Open fields along dirt roads!	4/26/2015 8:56 PM
61	Richmond Pond Richmond IPpnd	4/26/2015 3:52 PM
62	Fire Tower fire tower	4/26/2015 3:30 PM
63	Perry's Peak Perry's Peak	4/26/2015 8:53 AM
64	Richmond Pond Richmond Pond	4/25/2015 10:57 AM
65	Richmond Pond richmond pond	4/25/2015 8:23 AM
66	Richmond Pond Richmond pond	4/25/2015 6:31 AM
67	Richmond Pond Richmond Pond and it's shoreline	4/24/2015 7:51 PM
68	Richmond Pond Richmond Pond	4/24/2015 7:36 PM
69	Perry's Peak Perry's Peak	4/24/2015 7:19 PM
70	Fmr. Wm. Dixon Land Rt.41 Open Fields The big field(formerly Wm.& Hazel Dixon land on Rt.41)	4/24/2015 5:57 PM
71	None HAVE NONE	4/24/2015 5:46 PM
72	Olivia's Overlook olivia's overlook	4/24/2015 5:09 PM
73	Swamp Road Swamp Road	4/24/2015 3:05 PM
74	Historic Homes 18th century Richmond Homes	4/24/2015 2:26 PM
75	Perry's Peak Perry Peak	4/24/2015 2:25 PM
76	Richmond Pond Richmond POND	4/24/2015 2:05 PM
77	East Road/Views from Rd. Malnati Farm Malnotti farm overlook on East Rd.	4/24/2015 1:58 PM
78	Steven's Glen Stevens Glen	4/24/2015 1:38 PM
79	Open Fields Perry's Peak Fields to Perry's Peak	4/24/2015 1:29 PM
80	East Road/Views from Rd. East Road	4/24/2015 1:08 PM
81	Richmond Pond Richmond Pond	4/24/2015 1:05 PM
82	Lenox Mtn. Lenox Mtn.	4/24/2015 12:59 PM

Richmond Open Space and Recreation Survey

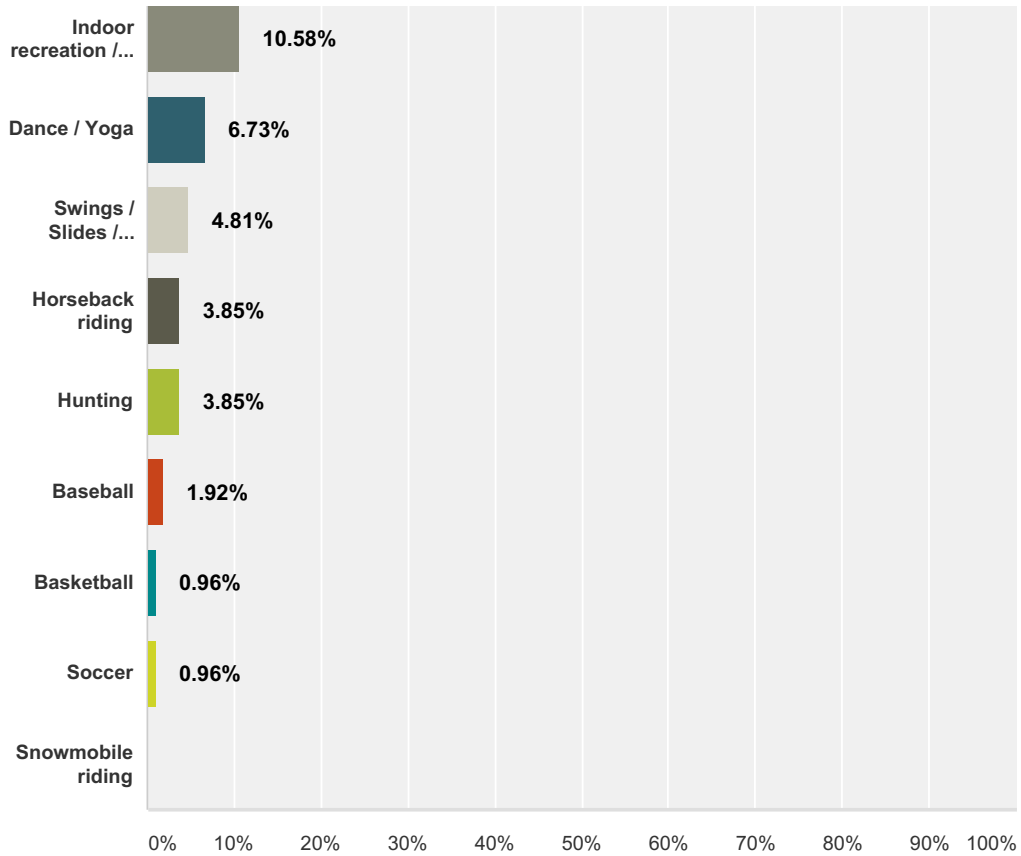
83	East Road/Views from Rd. East Road	4/24/2015 12:57 PM
84	East Road/Views from Rd. Malnati Farm East Road view of Malnati Farm from Reservoir Road	4/24/2015 12:43 PM
85	The ones people pay their fair taxes on	4/24/2015 12:41 PM
86	Open Fields farm fields with open vistas	4/24/2015 12:31 PM
87	Richmond Pond Richmond pond	4/24/2015 12:29 PM
88	East Road/Views from Rd. East Road	4/24/2015 12:29 PM
89	Perry's Peak Perry's Peak	4/24/2015 12:29 PM
90	Perry's Peak Perrys Peak area	4/24/2015 12:27 PM
91	Hollow Fields Hollow Fields	4/24/2015 12:25 PM

Q7 What are the top five (5) recreation activities you enjoy doing in Richmond? (Check a maximum of 5 boxes)

Answered: 104 Skipped: 9



Richmond Open Space and Recreation Survey



Answer Choices	Responses	
Hiking	67.31%	70
Walking	66.35%	69
Gardening	56.73%	59
Canoeing / Kayaking	43.27%	45
Swimming	34.62%	36
Bicycling	31.73%	33
Birdwatching	31.73%	33
Snowshoeing	26.92%	28
Cross-Country Skiing	17.31%	18
Boating	14.42%	15
Running	14.42%	15
Tennis	12.50%	13
Fishing	10.58%	11
Indoor recreation / Fitness activities	10.58%	11
Dance / Yoga	6.73%	7

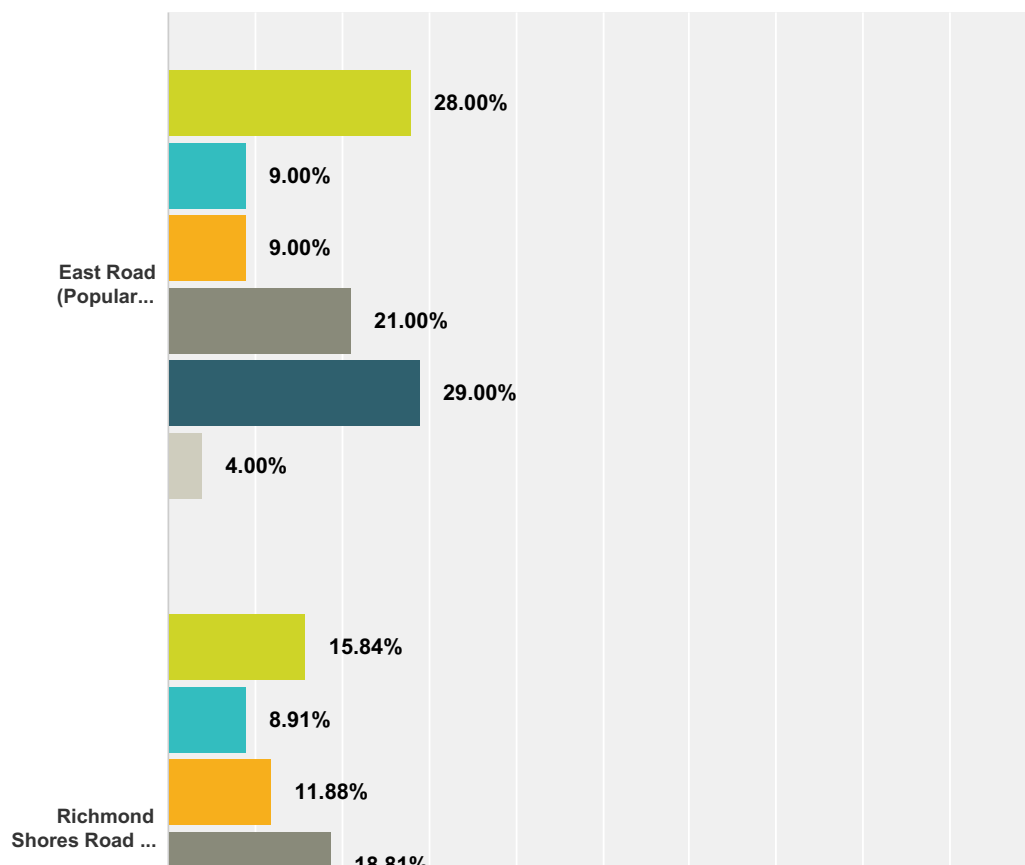
Richmond Open Space and Recreation Survey

Swings / Slides / Playgrounds	4.81%	5
Horseback riding	3.85%	4
Hunting	3.85%	4
Baseball	1.92%	2
Basketball	0.96%	1
Soccer	0.96%	1
Snowmobile riding	0.00%	0
Total Respondents: 104		

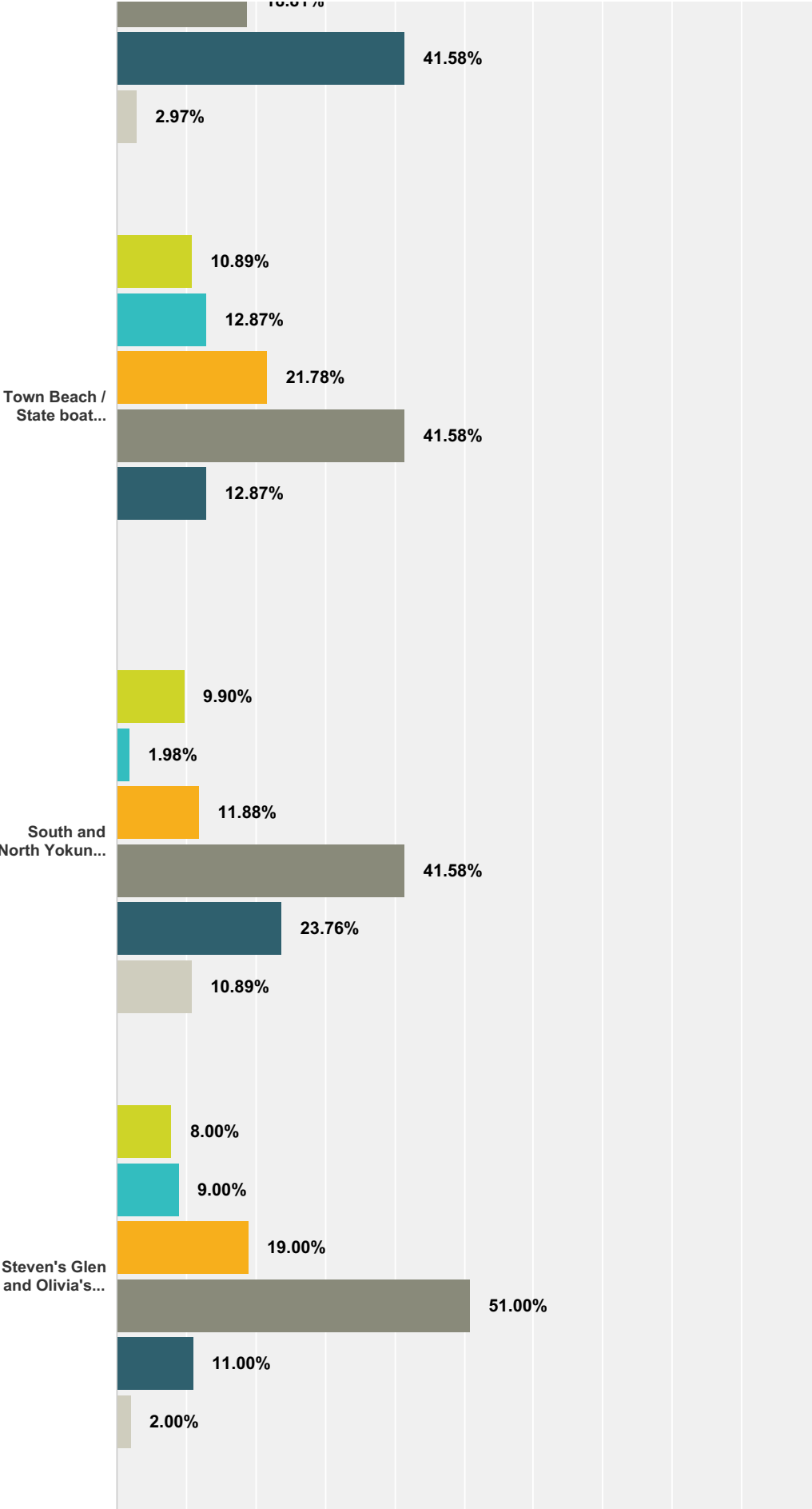
#	Other (please specify)	Date
1	Strven's Glen	5/20/2015 5:48 PM
2	Attendance at concerts and theatre performances.	5/19/2015 4:47 PM
3	walking dogs	5/19/2015 6:25 AM
4	Photography	5/13/2015 10:18 PM
5	Dog walking	4/24/2015 1:18 PM

Q8 How often do you use the following recreation areas in Richmond per year? (Please answer all items)

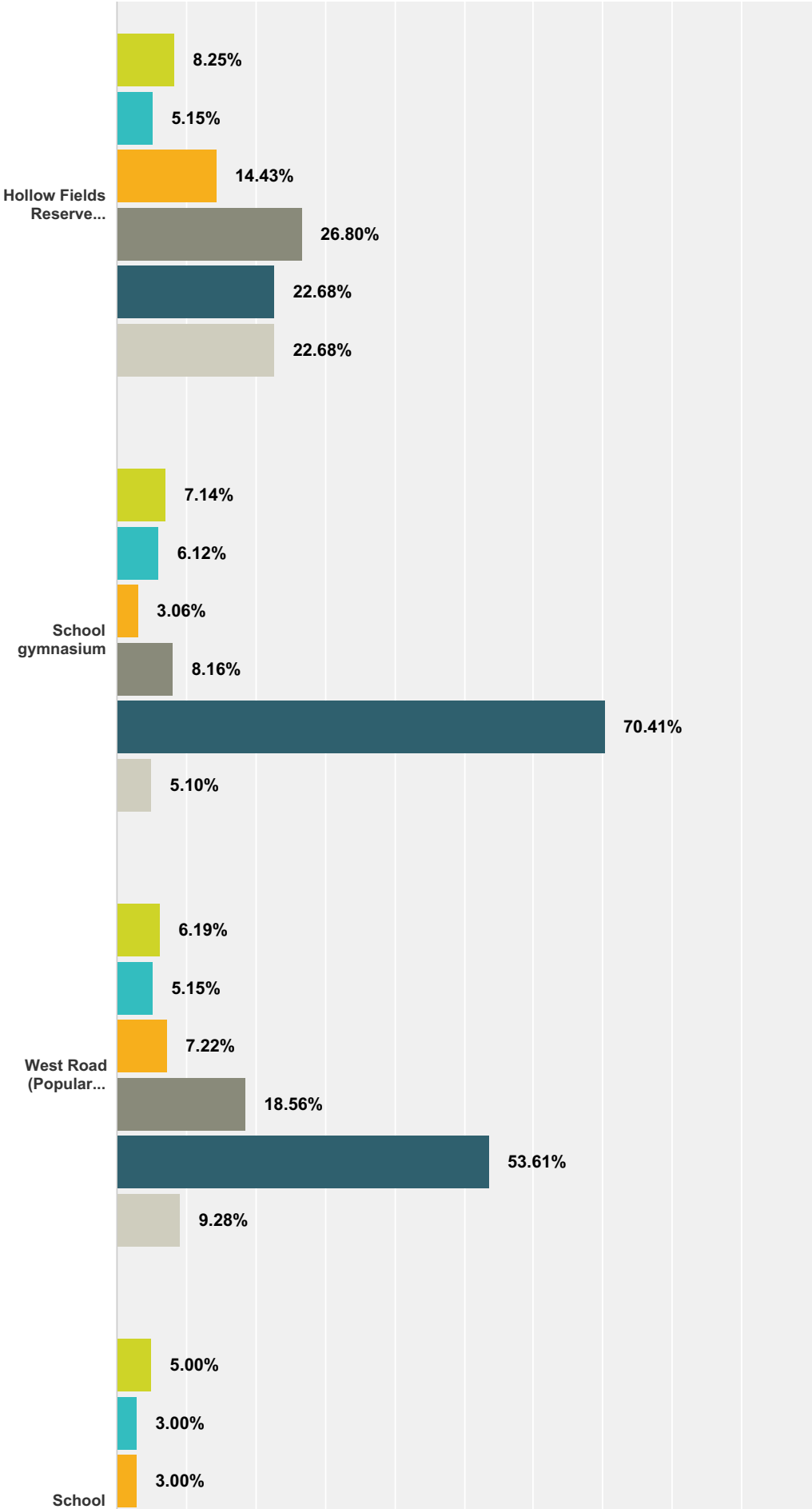
Answered: 103 Skipped: 10



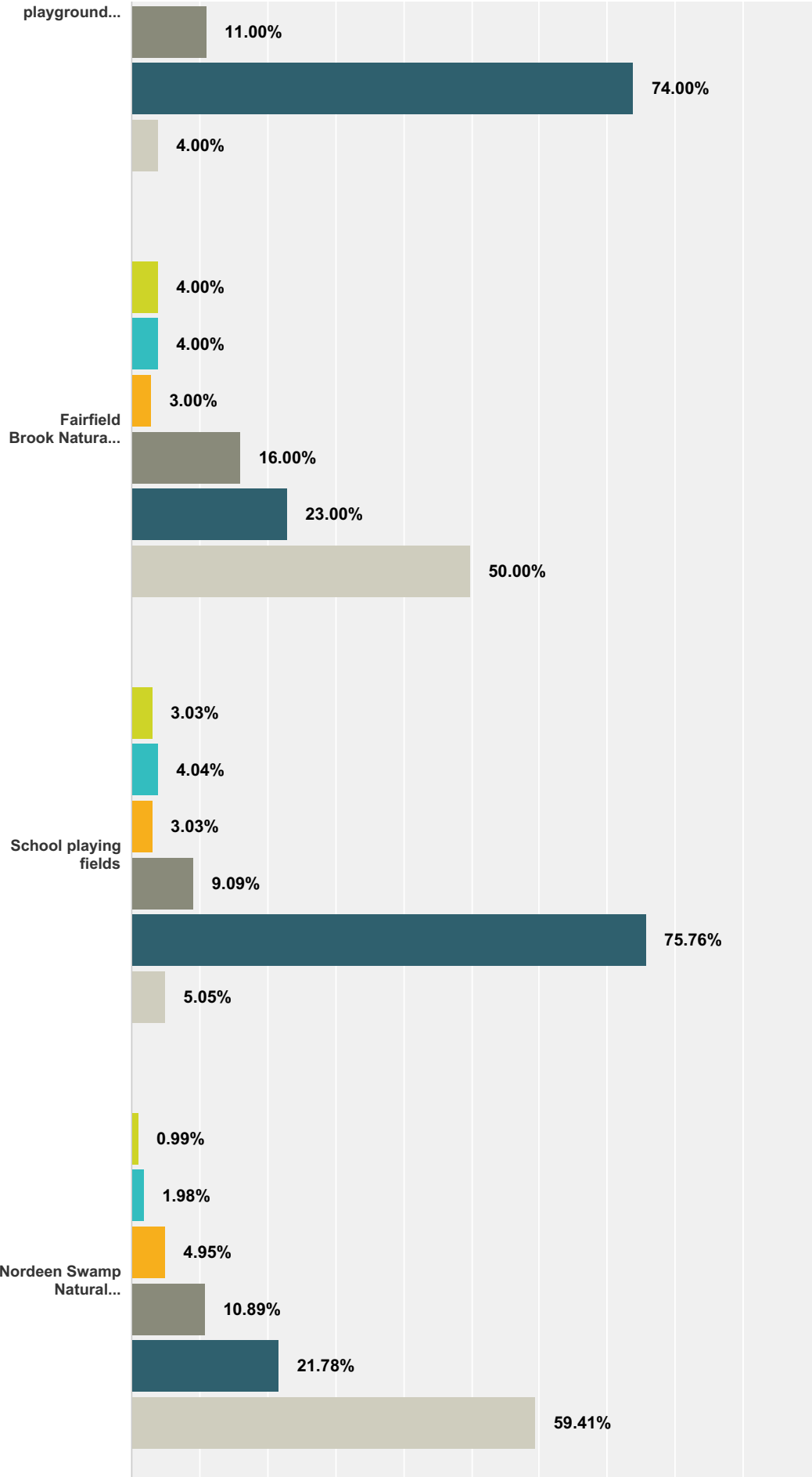
Richmond Open Space and Recreation Survey



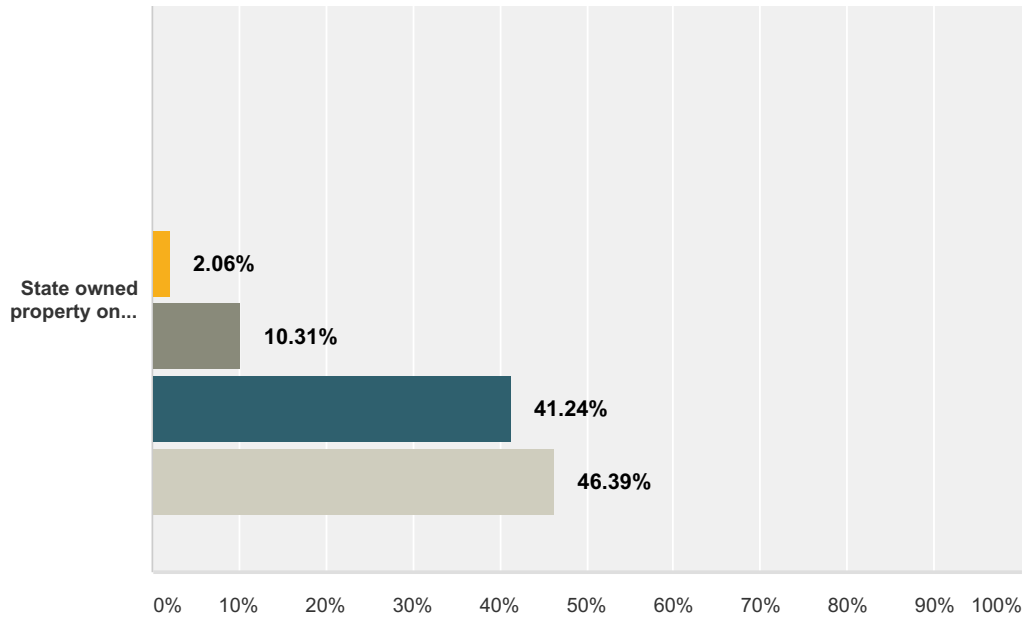
Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



■ Very Frequently (16+ times)
 ■ Frequently (11-15 times)
 ■ Occasionally (6-10 times)
 ■ Sometimes (1-5 times)
 ■ Never
 ■ Haven't heard of it

	Very Frequently (16+ times)	Frequently (11-15 times)	Occasionally (6-10 times)	Sometimes (1-5 times)	Never	Haven't heard of it	Total
East Road (Popular walking and running area)	28.00% 28	9.00% 9	9.00% 9	21.00% 21	29.00% 29	4.00% 4	100
Richmond Shores Road / Boy's Club Road (Popular dog-walking/running/walking area)	15.84% 16	8.91% 9	11.88% 12	18.81% 19	41.58% 42	2.97% 3	101
Town Beach / State boat launch	10.89% 11	12.87% 13	21.78% 22	41.58% 42	12.87% 13	0.00% 0	101
South and North Yokun Ridge hiking trails (accessed from Lenox Road)	9.90% 10	1.98% 2	11.88% 12	41.58% 42	23.76% 24	10.89% 11	101
Steven's Glen and Olivia's Overlook (Accessed from Lenox Branch Road)	8.00% 8	9.00% 9	19.00% 19	51.00% 51	11.00% 11	2.00% 2	100
Hollow Fields Reserve (Accessed from Perry's Peak Road)	8.25% 8	5.15% 5	14.43% 14	26.80% 26	22.68% 22	22.68% 22	97
School gymnasium	7.14% 7	6.12% 6	3.06% 3	8.16% 8	70.41% 69	5.10% 5	98
West Road (Popular walking and running area)	6.19% 6	5.15% 5	7.22% 7	18.56% 18	53.61% 52	9.28% 9	97
School playground equipment	5.00% 5	3.00% 3	3.00% 3	11.00% 11	74.00% 74	4.00% 4	100
Fairfield Brook Natural Heritage Area also known as Fairfield Brook Wildlife Management Area or former Malnati Farm (Located between Swamp and East Roads)	4.00% 4	4.00% 4	3.00% 3	16.00% 16	23.00% 23	50.00% 50	100
School playing fields	3.03% 3	4.04% 4	3.03% 3	9.09% 9	75.76% 75	5.05% 5	99

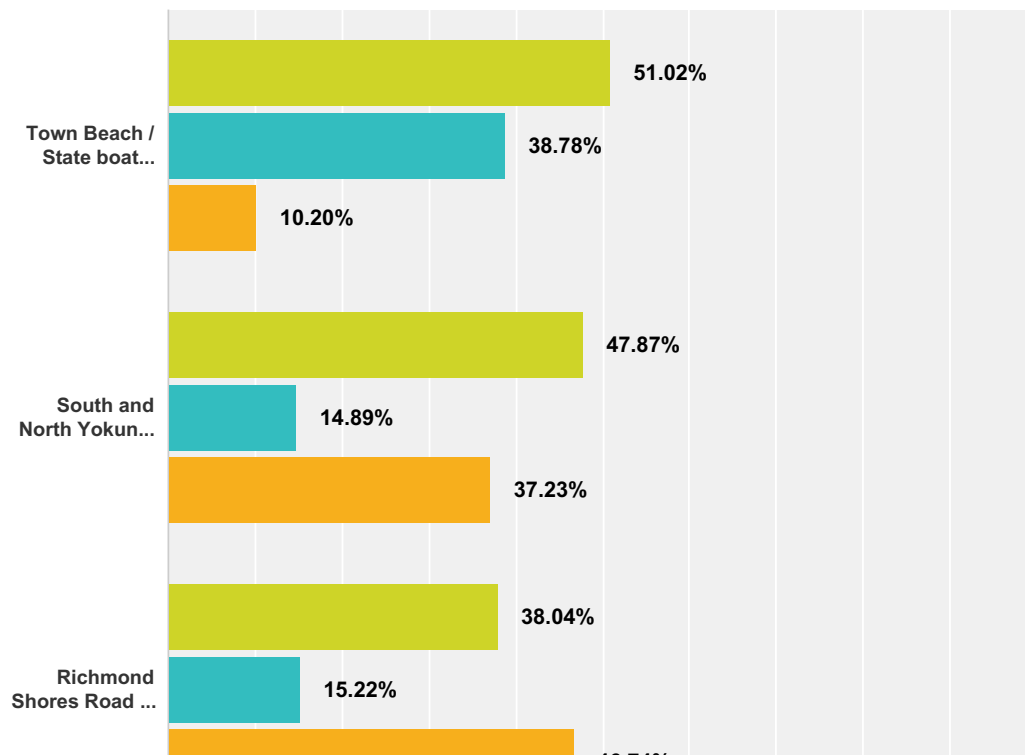
Richmond Open Space and Recreation Survey

Nordeen Swamp Natural Heritage Area also known as Richmond Fen Wildlife Management Area or Nordeen Swamp (Located off Richmond Shores Road)	0.99% 1	1.98% 2	4.95% 5	10.89% 11	21.78% 22	59.41% 60	101
State owned property on Dean Hill Road	0.00% 0	0.00% 0	2.06% 2	10.31% 10	41.24% 40	46.39% 45	97

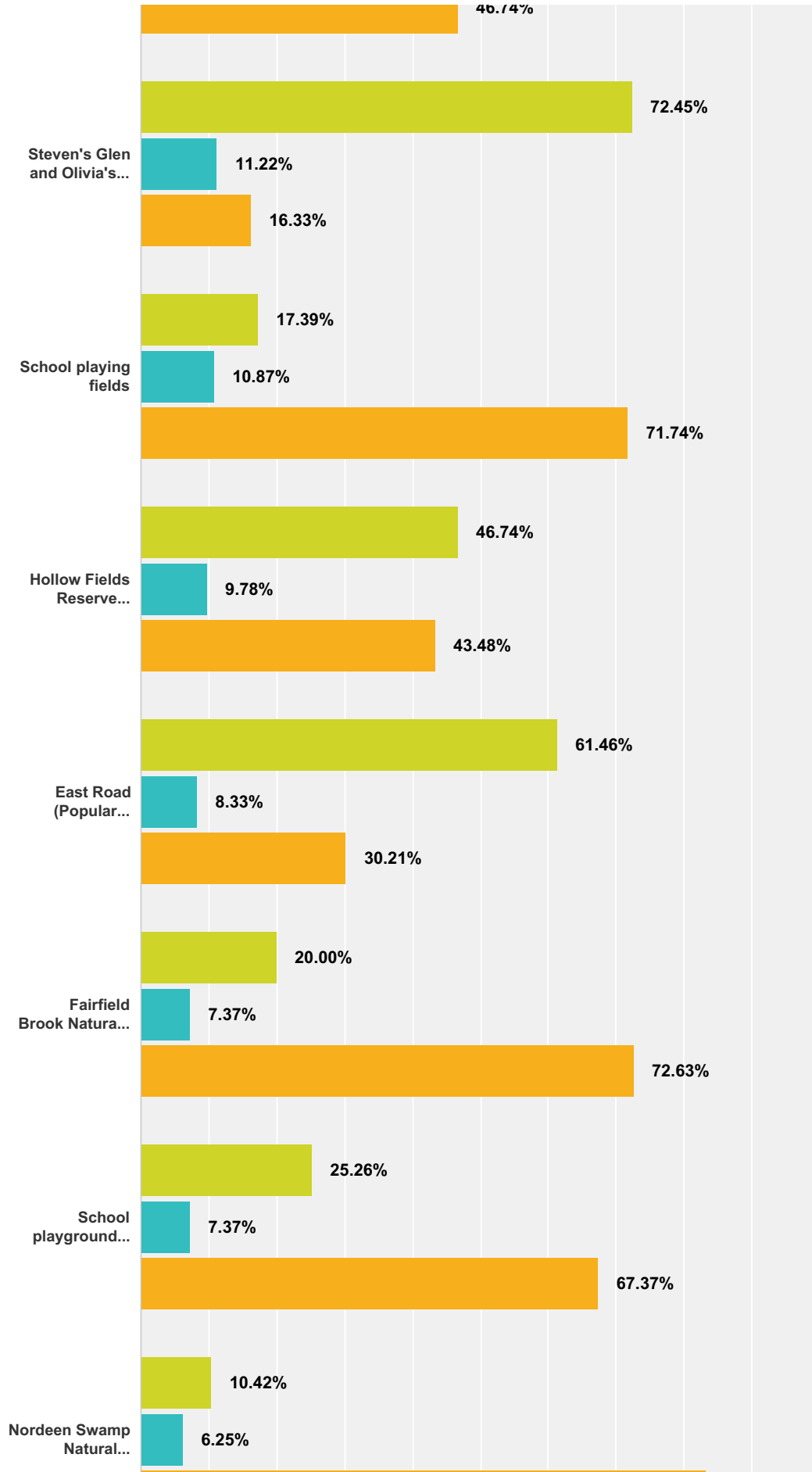
#	Other (please specify)	Date
1	Richmond Pond Canoeing	5/31/2015 1:38 PM
2	dublin road, furnance road for walking	5/26/2015 1:29 PM
3	As second-home owners, we spend only occasional periods in residence.	5/19/2015 4:47 PM
4	the 'havent' heard of its' were that I didn't know they were public areas	5/19/2015 6:25 AM
5	heron rookery	5/16/2015 12:14 PM
6	Don't have much time for recreation	5/13/2015 8:25 PM
7	I regularly hunt upland birds with my dog on the privately-owned piece of former ag land located on Sleepy Hollow Road near the Beagle Club.	5/8/2015 2:12 PM
8	Boynton field by permission	5/5/2015 8:05 AM
9	Camp Russell wooded open space	4/29/2015 9:05 AM
10	fire tower road starts at top of Osceola Road	4/26/2015 3:39 PM
11	Richmond pond more than 16 times in season	4/25/2015 9:06 AM
12	RE: Hollow Fields, I live on Perry's Peak Rd.	4/24/2015 1:45 PM

Q9 How would you rate the following recreation areas in Richmond? (Please answer all items)

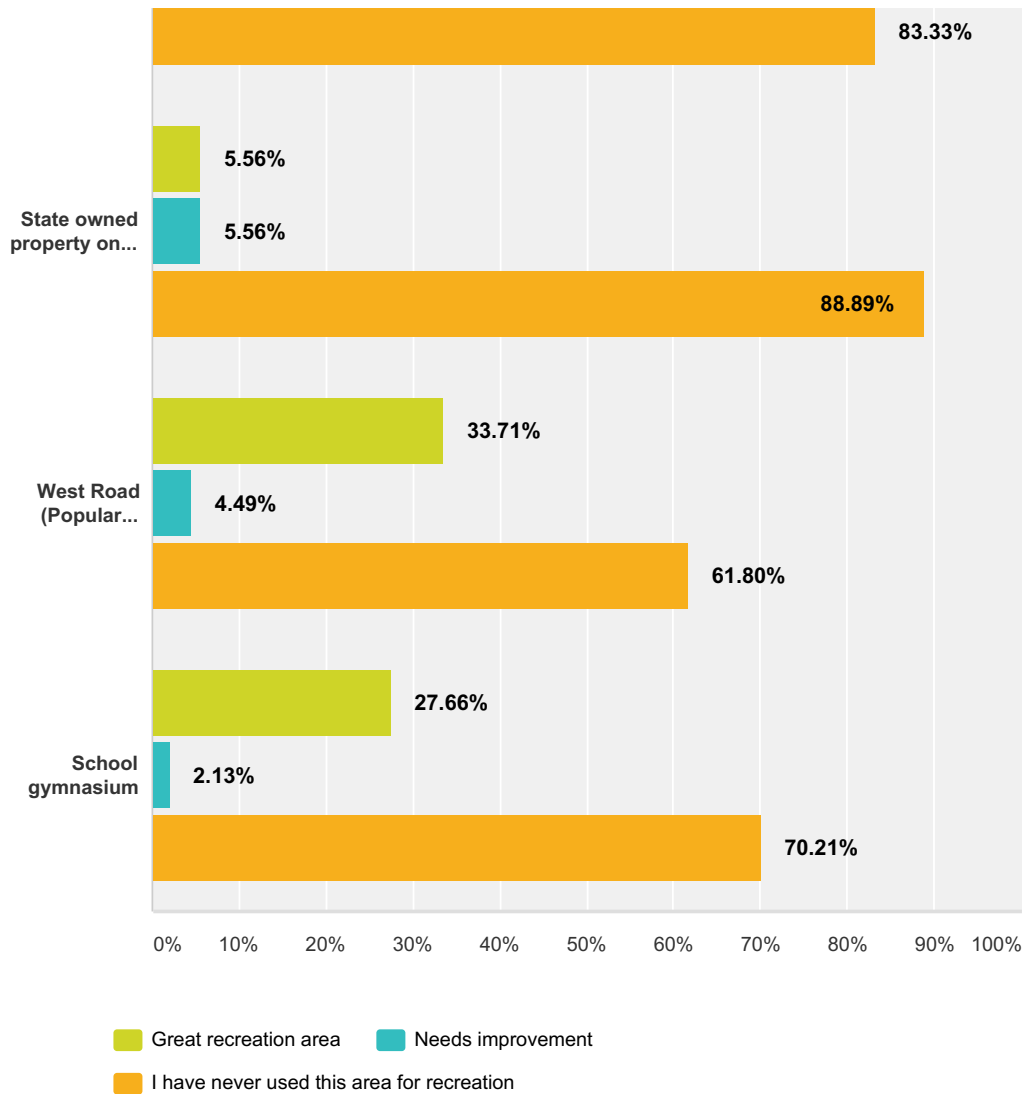
Answered: 101 Skipped: 12



Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



	Great recreation area	Needs improvement	I have never used this area for recreation	Total
Town Beach / State boat launch	51.02% 50	38.78% 38	10.20% 10	98
South and North Yokun Ridge hiking trails (accessed from Lenox Road)	47.87% 45	14.89% 14	37.23% 35	94
Richmond Shores Road / Boy's Club Road (Popular dog-walking/running/walking area)	38.04% 35	15.22% 14	46.74% 43	92
Steven's Glen and Olivia's Overlook (Accessed from Lenox Branch Road)	72.45% 71	11.22% 11	16.33% 16	98
School playing fields	17.39% 16	10.87% 10	71.74% 66	92
Hollow Fields Reserve (Accessed from Perry's Peak Road)	46.74% 43	9.78% 9	43.48% 40	92
East Road (Popular walking and running area)	61.46% 59	8.33% 8	30.21% 29	96
Fairfield Brook Natural Heritage Area also known as Fairfield Brook Wildlife Management Area or former Malnati Farm (Located between Swamp and East Roads)	20.00% 19	7.37% 7	72.63% 69	95

Richmond Open Space and Recreation Survey

School playground equipment	25.26% 24	7.37% 7	67.37% 64	95
Nordeen Swamp Natural Heritage Area also known as Richmond Fen Wildlife Management Area or Nordeen Swamp (Located off Richmond Shores Road)	10.42% 10	6.25% 6	83.33% 80	96
State owned property on Dean Hill Road	5.56% 5	5.56% 5	88.89% 80	90
West Road (Popular walking and running area)	33.71% 30	4.49% 4	61.80% 55	89
School gymnasium	27.66% 26	2.13% 2	70.21% 66	94

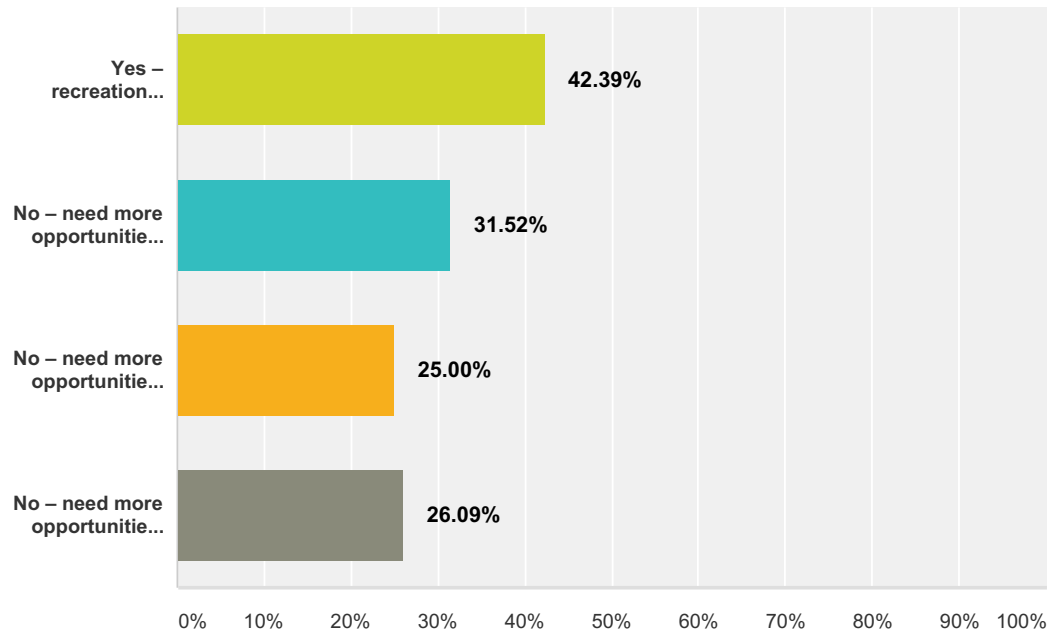
#	Please explain any improvements you would like to see in the areas listed above.	Date
1	open space around school could be cleared and maintained better, better drainage on field	6/9/2015 4:18 PM
2	playground equipment needs updating. Tennis upgrades: fence and gate and cracks in court.	6/5/2015 11:32 AM
3	improved boat launch ramp area and something to tie off boats	5/29/2015 4:04 PM
4	Trail markers, point of interest markers, trails cleared, fields lined for games	5/26/2015 5:05 PM
5	trailhead is not always maintained, town beach due to fence not always attractive, hiking trails from lenox road not always easy to park	5/26/2015 1:29 PM
6	I support purchasing a new town beach	5/24/2015 11:12 AM
7	n/a	5/22/2015 10:42 AM
8	Too many big rocks from road resurfacing to walk comfortably. I know it is hard to have it both ways.	5/18/2015 11:11 AM
9	roadways	5/15/2015 10:39 AM
10	Olivia's Overlook trails can be very confusing, as can Burbank trails. Sineage is poor.	5/14/2015 10:18 PM
11	Town Beach: If a little larger and a few more accessories, Town & Family Picnics & Outdoor Socials could be held and allow more use.	5/6/2015 7:19 PM
12	Preservation more important than recreation	4/29/2015 9:05 AM
13	More sand at the beach!	4/26/2015 9:12 PM
14	Hiking trails need to be better marker as I have not heard of some of these. Boat ramp needs better garbage manangement. Some worry about hunting	4/26/2015 3:39 PM
15	Properly maintained	4/25/2015 9:06 AM
16	Kayak/canoe put-in at boat launch area; porta-potty or modern pit toilet at boat launch ramp & at town beach	4/24/2015 7:48 PM
17	Anyone walking their dogs along East or West Roads should be instructed to clean up after them when they defecate. It is an insult to homeowners along the way when this is not done, and it is often. Dog owners should be instructed that cleaning up after their pets , and having them leashed is a law	4/24/2015 6:21 PM
18	The town is soaking the taxpayers dry with a school, road care, surveys and all these extra projects. We already know we need a town hall how much will that cost? We don't need more frivolous projects to satisfy the egos of a few who don't really care about the town but want their names associated with these projects	4/24/2015 2:00 PM
19	I would like to see an agreed upon dog play area where mine can get leash-free recreation with other friendly dogs.	4/24/2015 1:18 PM
20	Put up signs to identify the area and who owns it. Historical facts.	4/24/2015 1:04 PM
21	The town beach is an embarrassment and poorly run	4/24/2015 12:45 PM
22	trails	4/24/2015 12:37 PM
23	Is school gym available to public? could we have a fitness center there for use after school or in the evenings?	4/24/2015 12:33 PM

Richmond Open Space and Recreation Survey

24	Trails always need work though generally their in good shape. Signage at BNRC needs improvement as does parking. Playground equipment needs some repair.	4/24/2015 12:32 PM
----	--	--------------------

Q10 Do you think there are adequate recreation opportunities for all ages and abilities in Richmond? (Check all that apply)

Answered: 92 Skipped: 21



Answer Choices	Responses
Yes – recreation opportunities are adequate for all ages and abilities	42.39% 39
No – need more opportunities for children and younger residents	31.52% 29
No – need more opportunities for adults	25.00% 23
No – need more opportunities for older adults and people with disabilities	26.09% 24
Total Respondents: 92	

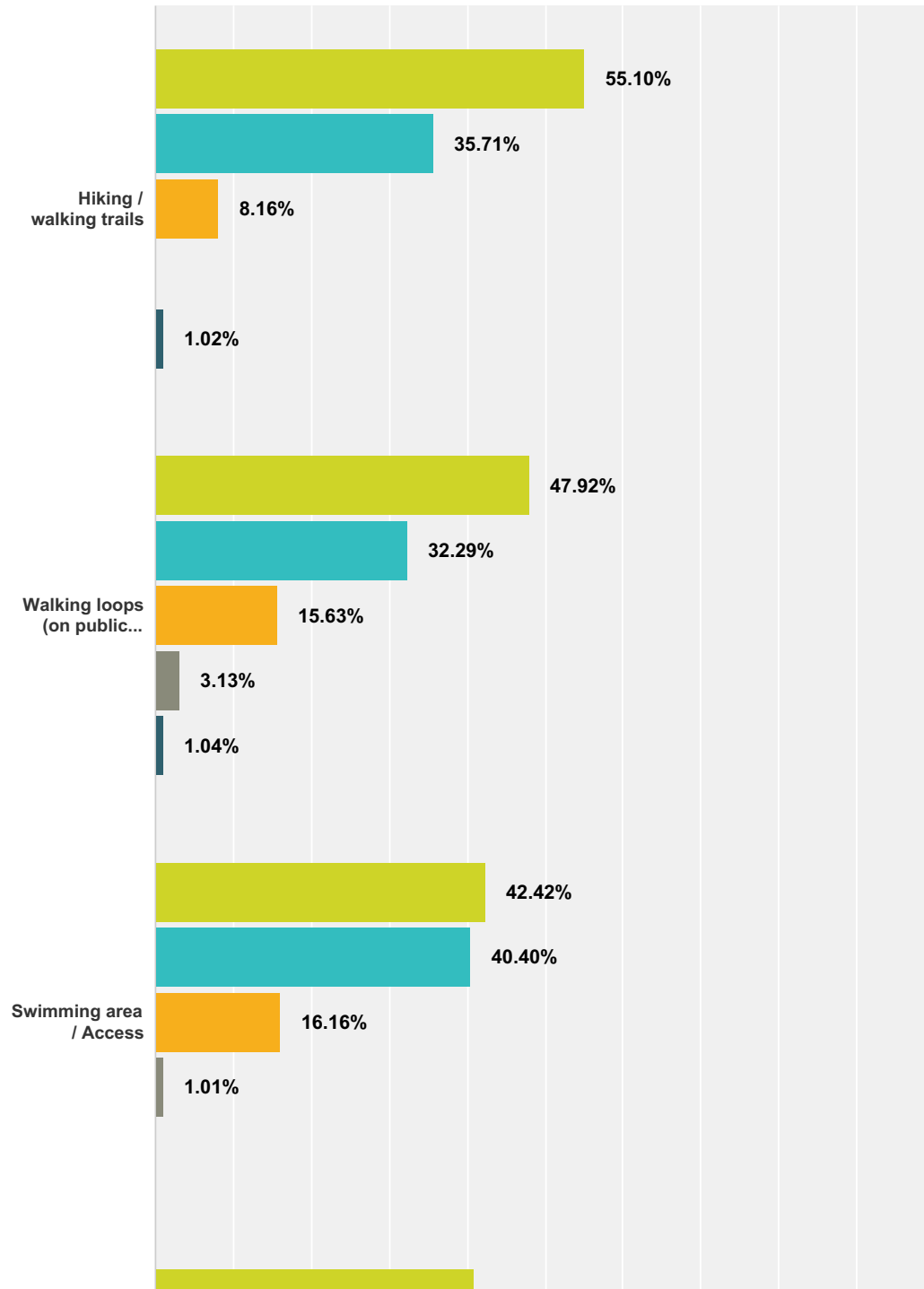
#	Other (please specify)	Date
1	Running trails with accessibility for jogging strollers, a sidewalk between school and post office would be great.	6/4/2015 10:22 PM
2	Congregation Space for teenagers	5/29/2015 12:05 PM
3	We have many available recreational opportunities and beautiful spaces, but you can never have too many! I would LOVE to see the Camp Marion White property acquired and utilized for camping, group gatherings, sports and hiking/ snowshoeing	5/26/2015 5:05 PM
4	now I do after the list above	5/22/2015 6:20 PM
5	need more dog friendly areas	5/19/2015 6:25 AM
6	trails with better accessibilty	4/26/2015 3:39 PM
7	Safe trails for dog walking, cross country skiing & hiking	4/24/2015 2:33 PM

Richmond Open Space and Recreation Survey

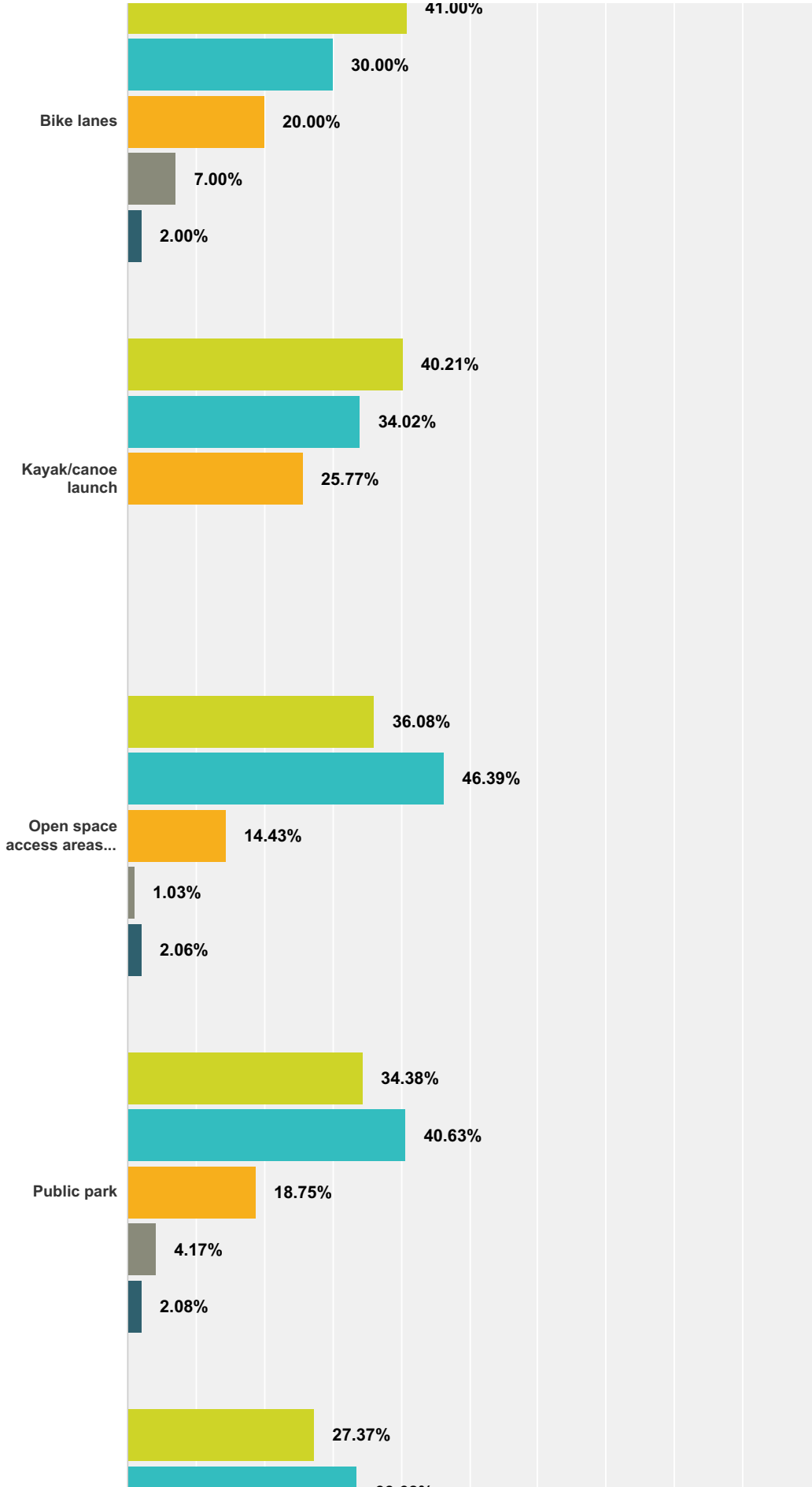
8	Maps of what's available would be helpful.	4/24/2015 1:40 PM
9	Note: I take my walks in the Pittsfield State Forrest.	4/24/2015 1:18 PM
10	Don't Know	4/24/2015 1:05 PM
11	Bike lanes	4/24/2015 12:34 PM

Q11 Please indicate your level of support for the following recreation improvements in Richmond. (Please answer all items)

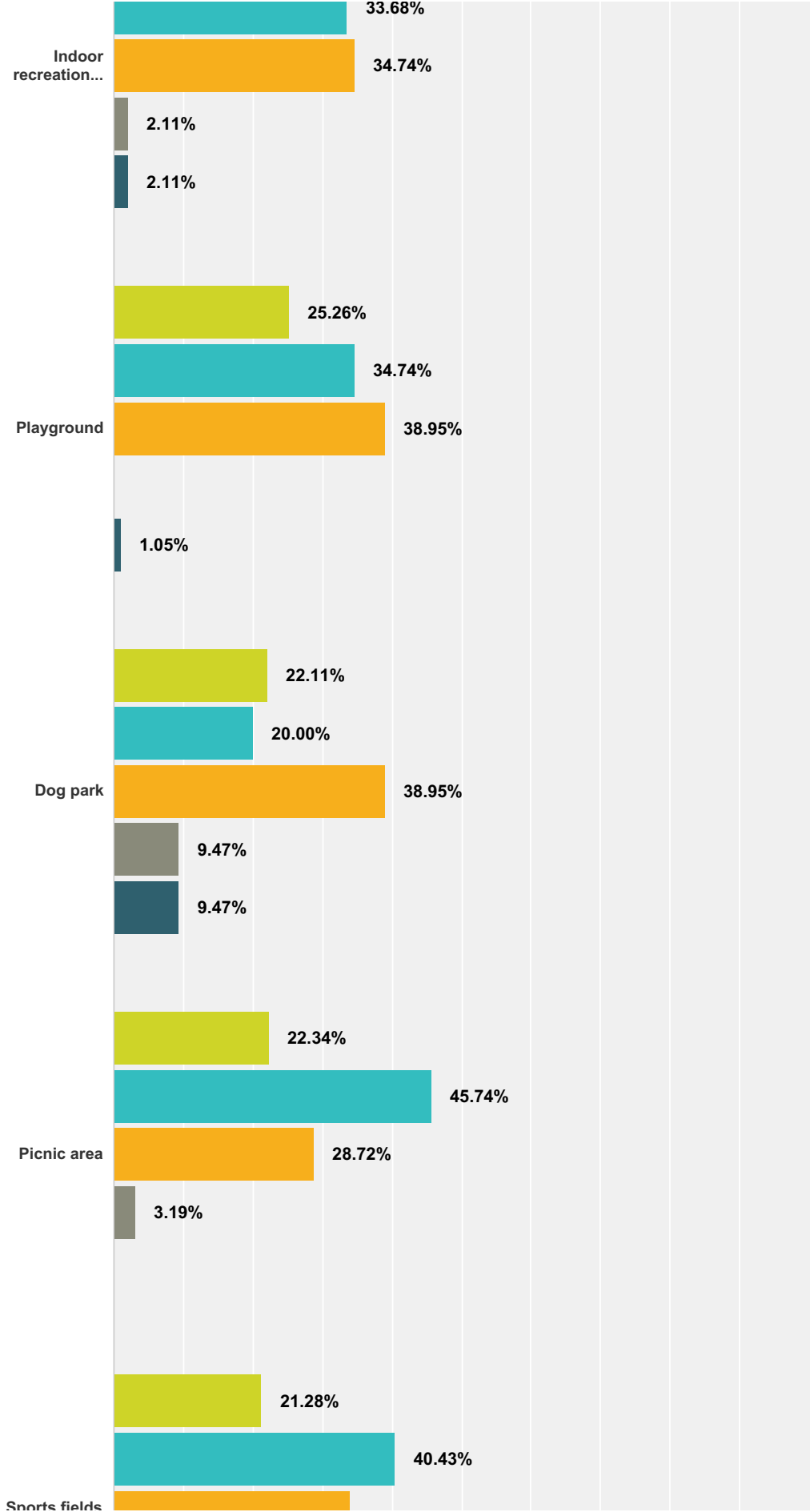
Answered: 102 Skipped: 11



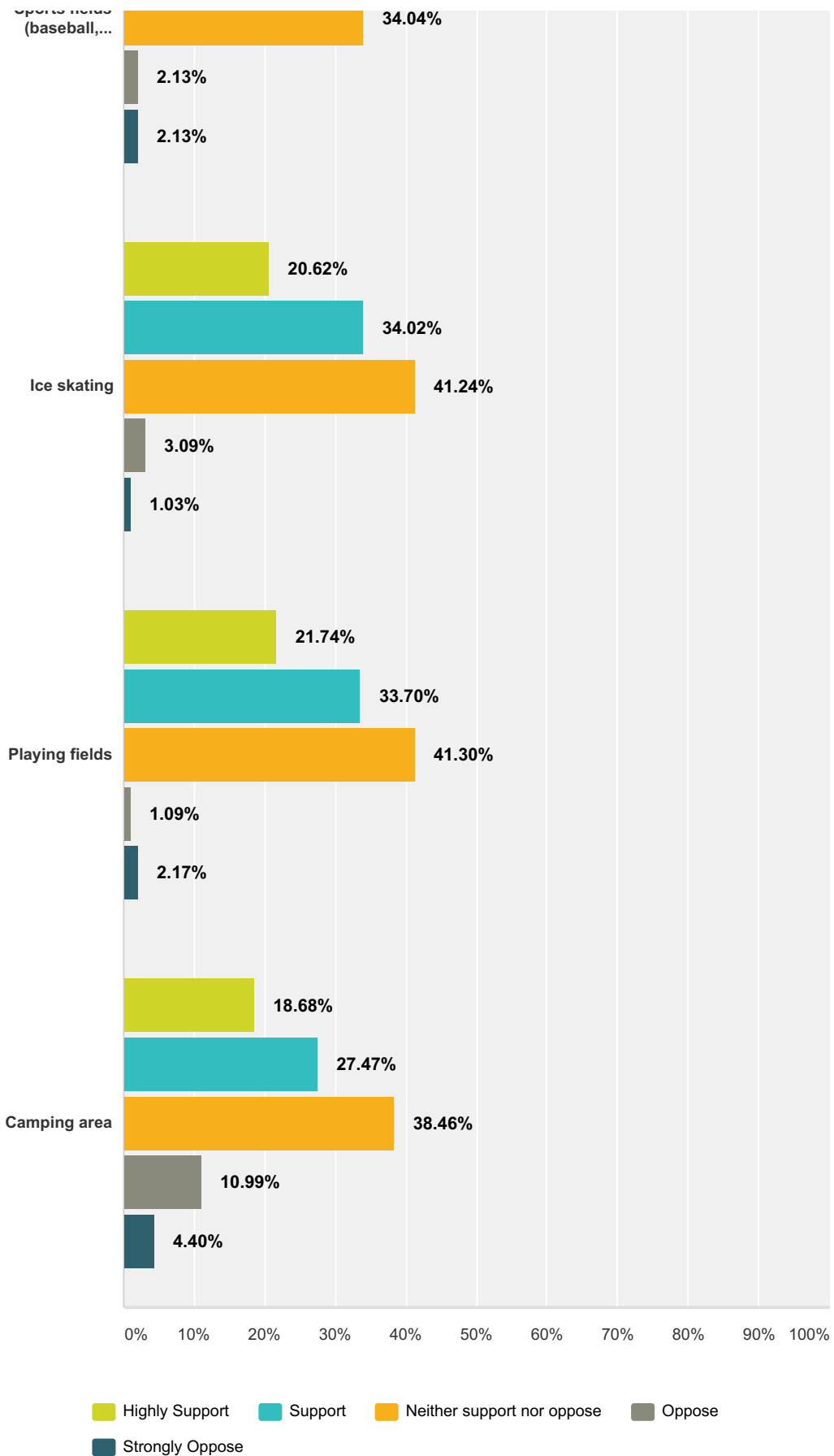
Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey

	Highly Support	Support	Neither support nor oppose	Oppose	Strongly Oppose	Total
Hiking / walking trails	55.10% 54	35.71% 35	8.16% 8	0.00% 0	1.02% 1	98
Walking loops (on public roadways)	47.92% 46	32.29% 31	15.63% 15	3.13% 3	1.04% 1	96
Swimming area / Access	42.42% 42	40.40% 40	16.16% 16	1.01% 1	0.00% 0	99
Bike lanes	41.00% 41	30.00% 30	20.00% 20	7.00% 7	2.00% 2	100
Kayak/canoe launch	40.21% 39	34.02% 33	25.77% 25	0.00% 0	0.00% 0	97
Open space access areas (parking lots and trailheads)	36.08% 35	46.39% 45	14.43% 14	1.03% 1	2.06% 2	97
Public park	34.38% 33	40.63% 39	18.75% 18	4.17% 4	2.08% 2	96
Indoor recreation (fitness, weight lifting, yoga etc.)	27.37% 26	33.68% 32	34.74% 33	2.11% 2	2.11% 2	95
Playground	25.26% 24	34.74% 33	38.95% 37	0.00% 0	1.05% 1	95
Dog park	22.11% 21	20.00% 19	38.95% 37	9.47% 9	9.47% 9	95
Picnic area	22.34% 21	45.74% 43	28.72% 27	3.19% 3	0.00% 0	94
Sports fields (baseball, football, tennis)	21.28% 20	40.43% 38	34.04% 32	2.13% 2	2.13% 2	94
Ice skating	20.62% 20	34.02% 33	41.24% 40	3.09% 3	1.03% 1	97
Playing fields	21.74% 20	33.70% 31	41.30% 38	1.09% 1	2.17% 2	92
Camping area	18.68% 17	27.47% 25	38.46% 35	10.99% 10	4.40% 4	91

#	Other (please specify)	Date
1	dog park!!!!	5/19/2015 6:25 AM
2	Kayak race on Richmond Pond - let's do it!	5/15/2015 10:39 AM
3	I would love to see more active timber management on various large forested lots to create more early-successional habitat for many different species of wildlife that need such habitat. We have an over-abundance of mature hardwood forest that only supports a narrow range of species because it offers little or no understory vegetation	5/8/2015 2:12 PM
4	Much depends on meaning of "improvements"	4/29/2015 9:05 AM
5	trails accessible to the handicapped	4/26/2015 3:39 PM
6	Community Vegetable/ Flower Gardens	4/24/2015 6:21 PM
7	Horse trailer parking near accessible trails.	4/24/2015 1:40 PM

Q12 What type of recreation ACTIVITY do

Richmond Open Space and Recreation Survey

you want to see more of in Richmond? (List only one)

Answered: 59 Skipped: 54

#	Responses	Date
1	hiking to scenic trails	6/9/2015 4:18 PM
2	Cycling / Improvements biking	6/7/2015 8:52 PM
3	Walking / Improvements Walking with dog off leash	6/5/2015 12:26 PM
4	Indoor Rec. Activities community events such as ping pong tournament	6/5/2015 11:32 AM
5	Swimming Wish there was better swimming	6/5/2015 11:30 AM
6	Walking / Improvements Marked trails for running/ walking	6/4/2015 10:22 PM
7	Town Park a town park for all citizens at camp marion white	5/29/2015 8:58 PM
8	Golf GOLF	5/29/2015 4:04 PM
9	Indoor Rec. Activities workout in gym	5/29/2015 11:05 AM
10	Hiking / Improvements Bird Watching club/activitiesHiking where dogs are welcoms	5/27/2015 9:44 AM
11	Athletics/Team Sports Team sports	5/26/2015 5:05 PM
12	Cycling / Improvements biking lanes	5/26/2015 1:29 PM
13	Hiking / Improvements mapped hiking trails	5/24/2015 1:41 PM
14	Walking / Improvements organized walking and nature study	5/22/2015 11:06 AM
15	Hiking / Improvements hiking trails	5/22/2015 10:42 AM
16	Hiking / Improvements Well marked hiking trails.	5/19/2015 4:47 PM
17	dog park	5/19/2015 6:25 AM
18	Aerobics/Yoga Classes etc I love Christine Faber's tai chi weight class on Thursday and would welcome another during the week .	5/18/2015 11:11 AM
19	Town Park a park for many of the above activities	5/17/2015 12:47 PM
20	Hiking / Improvements hiking	5/16/2015 12:14 PM
21	Anything for Kids/Family Kid friendly activities	5/15/2015 10:39 AM
22	Rec. for Seniors Anything for seniors	5/15/2015 9:43 AM
23	Ice Skating Richmond Pond area cleared for ice skating	5/14/2015 10:18 PM
24	Picnic Areas more picnic areas	5/14/2015 3:32 PM
25	Bird Watching Guided bird walks	5/13/2015 10:18 PM
26	Hiking / Improvements trails	5/13/2015 12:50 PM
27	X-Country Skiing cross country ski	5/13/2015 12:17 PM
28	Hiking / Improvements hiking	5/10/2015 3:50 PM
29	Hiking / Improvements Hiking trails	5/10/2015 8:41 AM
30	Anything for Kids/Family Any number of outdoor recreational activities that appeal to young children and families. We need to everything we can to make this community more attractive to millenials and younger Gen Xers... as opposed to just Babyboomers and surviving members of the Greatest Generation.	5/8/2015 2:12 PM
31	Cycling / Improvements bike lanes or trails	5/8/2015 10:58 AM

Richmond Open Space and Recreation Survey

32	Tennis Tennis---life long sport...coed..all ages (and for disabled too!)	5/6/2015 8:47 PM
33	Hiking / Improvements Walking / Improvements Walking/hiking	5/6/2015 7:19 PM
34	Cycling / Improvements Safe biking for all ages	5/5/2015 8:05 AM
35	Boating Swimming Swimming and boating	5/2/2015 12:02 AM
36	Hiking / Improvements Walking / Improvements hiking,walking trails	4/30/2015 9:02 AM
37	Athletics/Team Sports Sports field	4/29/2015 7:31 PM
38	Walking / Improvements walking trails	4/29/2015 9:05 AM
39	Walking / Improvements Woods' walks	4/27/2015 1:02 PM
40	Walking / Improvements marked walking loops	4/27/2015 11:03 AM
41	Cycling / Improvements on-road cycling	4/26/2015 9:12 PM
42	Cycling / Improvements Hiking / Improvements safe biking and hiking	4/26/2015 3:39 PM
43	Walking / Improvements places to walk (not in the woods)	4/26/2015 8:58 AM
44	Sailing Sailing	4/25/2015 9:06 AM
45	Hiking / Improvements Walking / Improvements hiking/walking trails	4/24/2015 7:48 PM
46	Golf Course Golf course	4/24/2015 7:26 PM
47	Rec. for Seniors Development of park area for Senior Citizens with benches.	4/24/2015 6:21 PM
48	Indoor Rec. Activities ADULT INDOOR ACTIVITIES	4/24/2015 5:50 PM
49	Running Running	4/24/2015 5:15 PM
50	Cycling / Improvements Bike trails	4/24/2015 4:52 PM
51	Indoor Rec. Activities Indoor activities	4/24/2015 2:16 PM
52	Walking / Improvements Safer walking/hiking areas	4/24/2015 2:03 PM
53	Hiking / Improvements hiking trails	4/24/2015 1:19 PM
54	Swimming swimming	4/24/2015 1:18 PM
55	Walking / Improvements Safe walking, bike riding	4/24/2015 1:05 PM
56	X-Country Skiing Cross country skiing	4/24/2015 12:43 PM
57	Hiking / Improvements organized walks and hikes	4/24/2015 12:36 PM
58	Indoor Rec. Activities Fitness center facility	4/24/2015 12:33 PM
59	Hiking / Improvements Hiking	4/24/2015 12:32 PM

Q13 What type of recreation IMPROVEMENTS would you like to see more of in Richmond? (List as many as you like)

Answered: 54 Skipped: 59

#	Responses	Date
1	Boat / Speed monitoring Cycling Improvements Walking / Safer Walking please build ****bike lanes**** walking trails. please limit motorboat activity on richmond pond	6/7/2015 8:52 PM
2	Athletic Fields / Courts fix tennis court!	6/5/2015 11:32 AM

Richmond Open Space and Recreation Survey

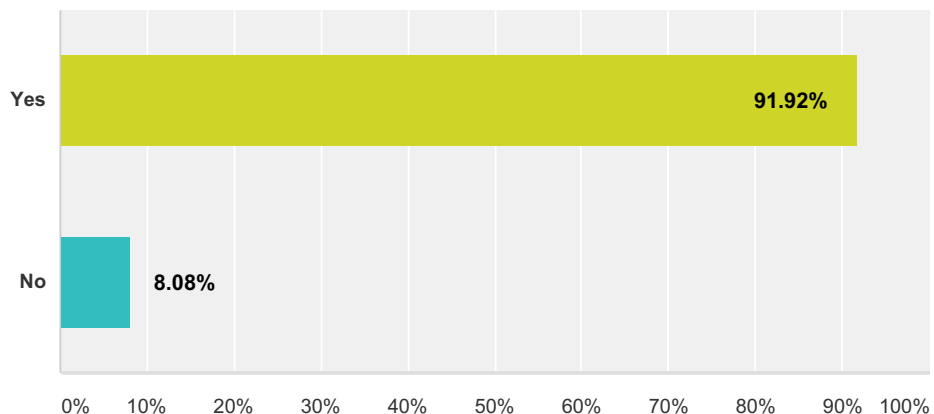
3	All checked above	6/5/2015 11:30 AM
4	Park Walking / Safer Walking Running trails, park/ playground areas where people can convene, playground that's not on school grounds	6/4/2015 10:22 PM
5	Athletic Fields / Courts Bocce Ball	6/2/2015 10:50 AM
6	Golf BUILD A GOLF COURSE ON SOME OF THE TOWN OR CONSERVED LAND TO BRING IN TAX REVENUE	5/29/2015 4:04 PM
7	Trailheads / Access Better parking	5/27/2015 9:44 AM
8	Improve Town Beach Fields lined, trail heads marked, picnic area established, town beach improvements	5/26/2015 5:05 PM
9	Promote Ex. Recreation clear trail maps	5/26/2015 1:29 PM
10	Maintain current areas good maintenance of current facilities	5/22/2015 11:06 AM
11	None n/a	5/22/2015 10:42 AM
12	Camp Marion White enjoy what we have but need more play recreation possibilities for children i.e buy camp property	5/20/2015 5:48 PM
13	Improve Town Beach Improvements to the town beach on Richmond Pond. Trail markings on Yokun Ridge and Olivia's Outlook.	5/19/2015 4:47 PM
14	Dog Park creation of a dog park	5/19/2015 6:25 AM
15	Walking / Safer Walking A walking trail that is paved.	5/18/2015 11:11 AM
16	Park park for group activities	5/17/2015 12:47 PM
17	More Open Space as much open land as possible	5/16/2015 12:14 PM
18	Beautify / Improve Roads roadways, community offerings	5/15/2015 10:39 AM
19	Indoor Rec. Activities Programmed use of school gym	5/15/2015 9:43 AM
20	Education / Interpretive Painting classes and lectures in town hall auditorium Not known if tennis group still exists? Unicycle lessons/team for adults and kids	5/14/2015 10:18 PM
21	None I feel the amount of public access areas is quite acceptable at this time	5/14/2015 3:32 PM
22	Education / Interpretive Educational nature walks	5/13/2015 10:18 PM
23	Hiking / Trails trails	5/13/2015 12:50 PM
24	Improve Town Beach town beach improvement of all kinds	5/13/2015 12:17 PM
25	Promote Ex. Recreation better info about existing areas/trail maps	5/10/2015 3:50 PM
26	Park Parks & gardens	5/10/2015 8:41 AM
27	See response to #12.	5/8/2015 2:12 PM
28	Cycling Improvements Safer roads for biking.	5/8/2015 10:58 AM
29	Park A park for all ages. Some nice equipment for seniors, a playground for younger...skatepark possibly for teens and some pagodas for sunny days with gardens	5/6/2015 8:47 PM
30	Hiking / Trails Off Road Walking/hiking loops	5/6/2015 7:19 PM
31	Beautify / Improve Roads Roads need improvement	5/5/2015 8:05 AM
32	More Open Space More preserved land	5/2/2015 12:02 AM
33	Boat / Speed monitoring monitoring speed boating on the pond	4/30/2015 9:02 AM
34	"Green" Improvements "improvements" as long as they are preservation oriented and "green" in nature	4/29/2015 9:05 AM
35	Walking / Safer Walking marked walking loops	4/27/2015 11:03 AM

Richmond Open Space and Recreation Survey

36	Camp Marion White Cycling Improvements Maintain current areas Maintain current open spaces, especially open fields and former agricultural areas, especially those with best vistas. Increase safety of on-road cycling through more 'share the road' signage, and wider shoulders (but not wider roads, which encourages speeding). Look at ways to keep the Girls Scouts Camp on Richmond Pond preserved as open space, if threatened with development.	4/26/2015 9:12 PM
37	Trailheads / Access better easier trailheads	4/26/2015 3:39 PM
38	Promote Ex. Recreation booklet with maps and descriptions regarding recreation areas available to residents	4/26/2015 8:58 AM
39	Hiking / Trails Picnic area Swimming Water Access Hiking trails, swimming boating areas, picnic areas	4/25/2015 9:06 AM
40	Camp Marion White Park Town park preferably at Richmond Pond (Camp Marion White property)	4/24/2015 7:48 PM
41	None None	4/24/2015 7:26 PM
42	Beautify / Improve Roads More places developed into flower gardens, such as at entrances to town, the entrances to town roads, such as the big triangle at the Rt.295 end of West Road, etc.	4/24/2015 6:21 PM
43	Indoor Rec. Activities ADULT INDOOR ACTIVITIES	4/24/2015 5:50 PM
44	Athletic Fields / Courts Baseball field	4/24/2015 5:15 PM
45	Athletic Fields / Courts more tennis courts	4/24/2015 4:52 PM
46	Indoor Rec. Activities Indoor various exercise classes	4/24/2015 2:16 PM
47	Improve Town Beach Richmond Town Beach is a mess	4/24/2015 2:03 PM
48	Promote Ex. Recreation Better information on areas available for hiking.	4/24/2015 1:40 PM
49	Dog Park Walking / Safer Walking Dog park Side walks for safe walking	4/24/2015 1:18 PM
50	Water Access Better water access	4/24/2015 1:05 PM
51	Less Development Less development.	4/24/2015 1:04 PM
52	Improve Town Beach Fix the town beach, the road to the town beach	4/24/2015 12:45 PM
53	Trailheads / Access trailhead parking access to walking/hiking areas	4/24/2015 12:33 PM
54	Birdwatching Trailheads / Access Birdwatching (habitat-creation or -improvement), better parking/access for trails.	4/24/2015 12:32 PM

Q14 Would you support the purchase / preservation of Camp Marion White by the Town of Richmond, local land trusts, or a combination of both?

Answered: 99 Skipped: 14

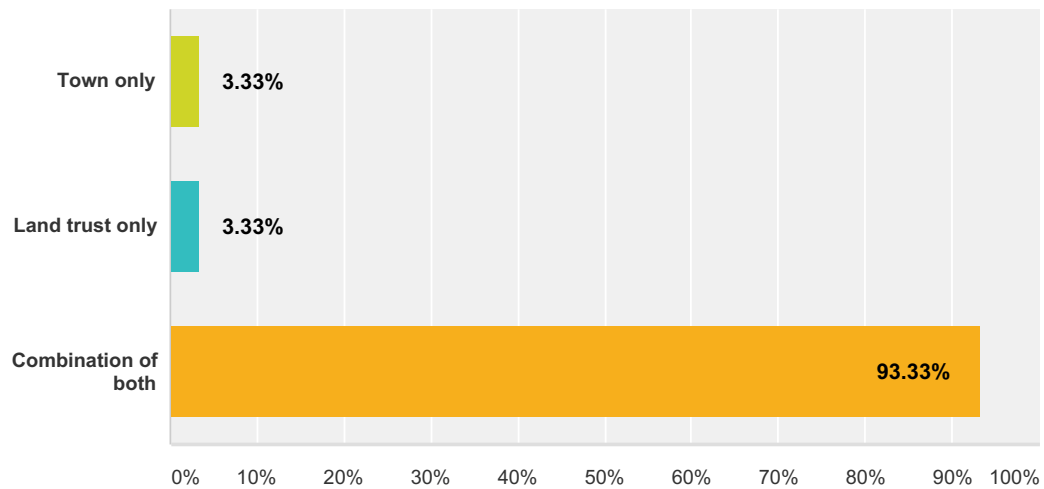


Richmond Open Space and Recreation Survey

Answer Choices	Responses
Yes	91.92% 91
No	8.08% 8
Total	99

Q15 If you answered "Yes" to the question above, how should the purchase move forward?

Answered: 90 Skipped: 23

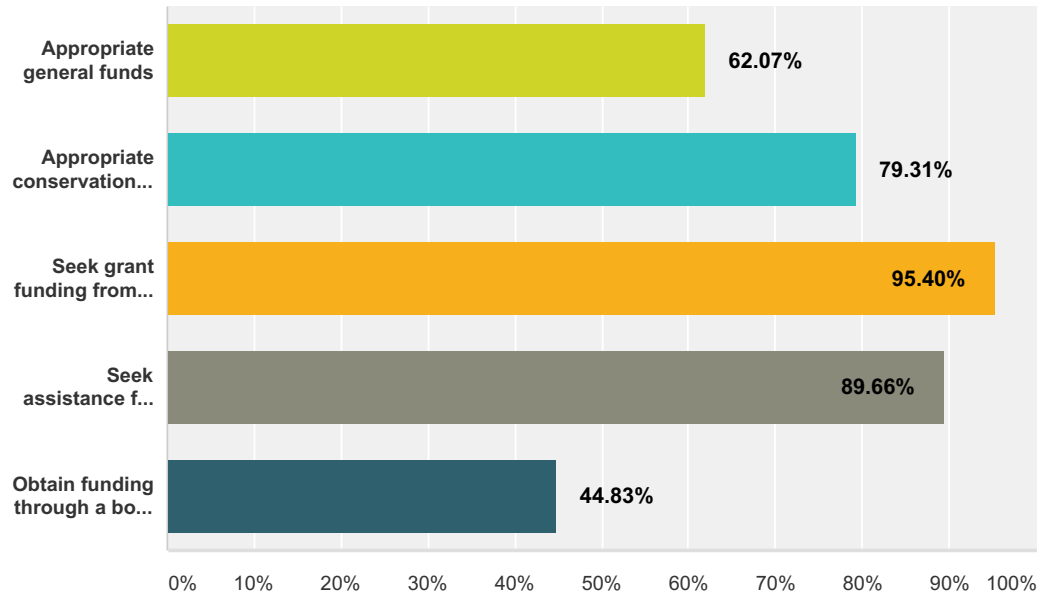


Answer Choices	Responses
Town only	3.33% 3
Land trust only	3.33% 3
Combination of both	93.33% 84
Total	90

Q16 To support the purchase / preservation of Camp Marion White, should the town do the following? (Check all that apply)

Answered: 87 Skipped: 26

Richmond Open Space and Recreation Survey

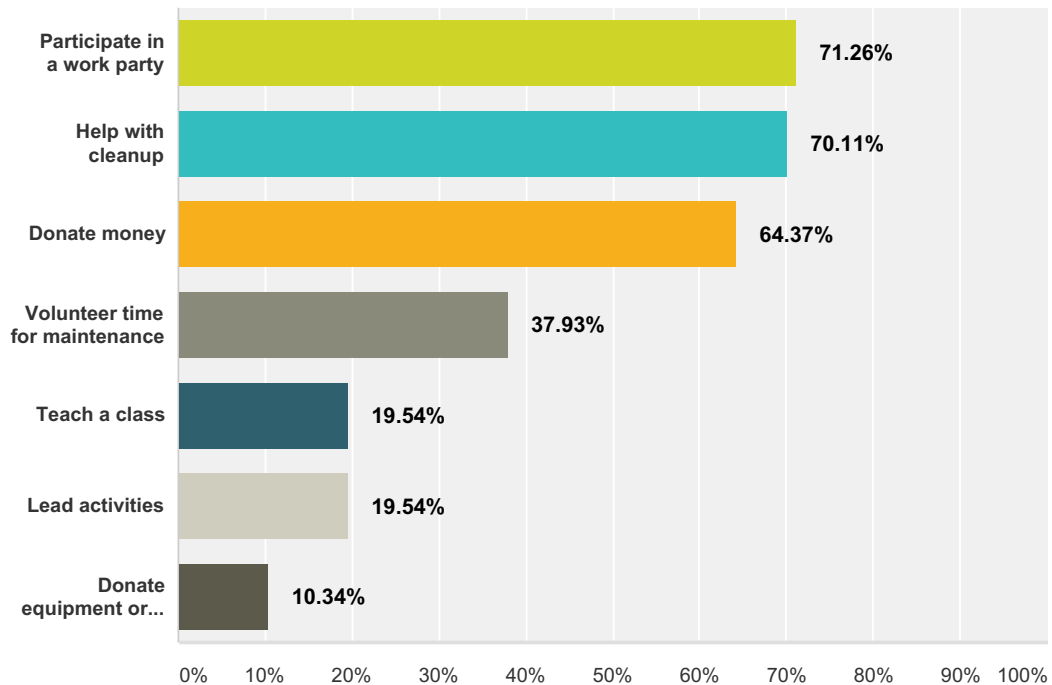


Answer Choices	Responses
Appropriate general funds	62.07% 54
Appropriate conservation funds	79.31% 69
Seek grant funding from the state	95.40% 83
Seek assistance from local land trusts	89.66% 78
Obtain funding through a bond measure	44.83% 39
Total Respondents: 87	

#	Other (please specify)	Date
1	Fund Raiser	5/29/2015 12:11 PM
2	uninformed	5/22/2015 8:34 PM
3	Have a fund-raiser	5/13/2015 10:23 PM
4	seek donation from girl scouts	5/13/2015 12:52 PM
5	fund raising events	5/8/2015 11:01 AM
6	Do anything so that land DOES not become private land!	5/6/2015 9:33 PM
7	Solicit Donations	5/6/2015 7:19 PM
8	bond? taxes?	4/26/2015 3:42 PM
9	Seek contributions from resident	4/25/2015 9:06 AM
10	Seek out former Camp Marion White campers & staff for contributions	4/24/2015 7:58 PM
11	Seek donations from individuals	4/24/2015 6:30 PM
12	No town money	4/24/2015 2:01 PM
13	All of the above	4/24/2015 1:00 PM
14	Not sure on item 15 & 16 - I'd need more info	4/24/2015 12:50 PM
15	A waste of money	4/24/2015 12:48 PM

Q17 To support the purchase / preservation of Camp Marion White, would you do the following? (Check all that apply)

Answered: 87 Skipped: 26



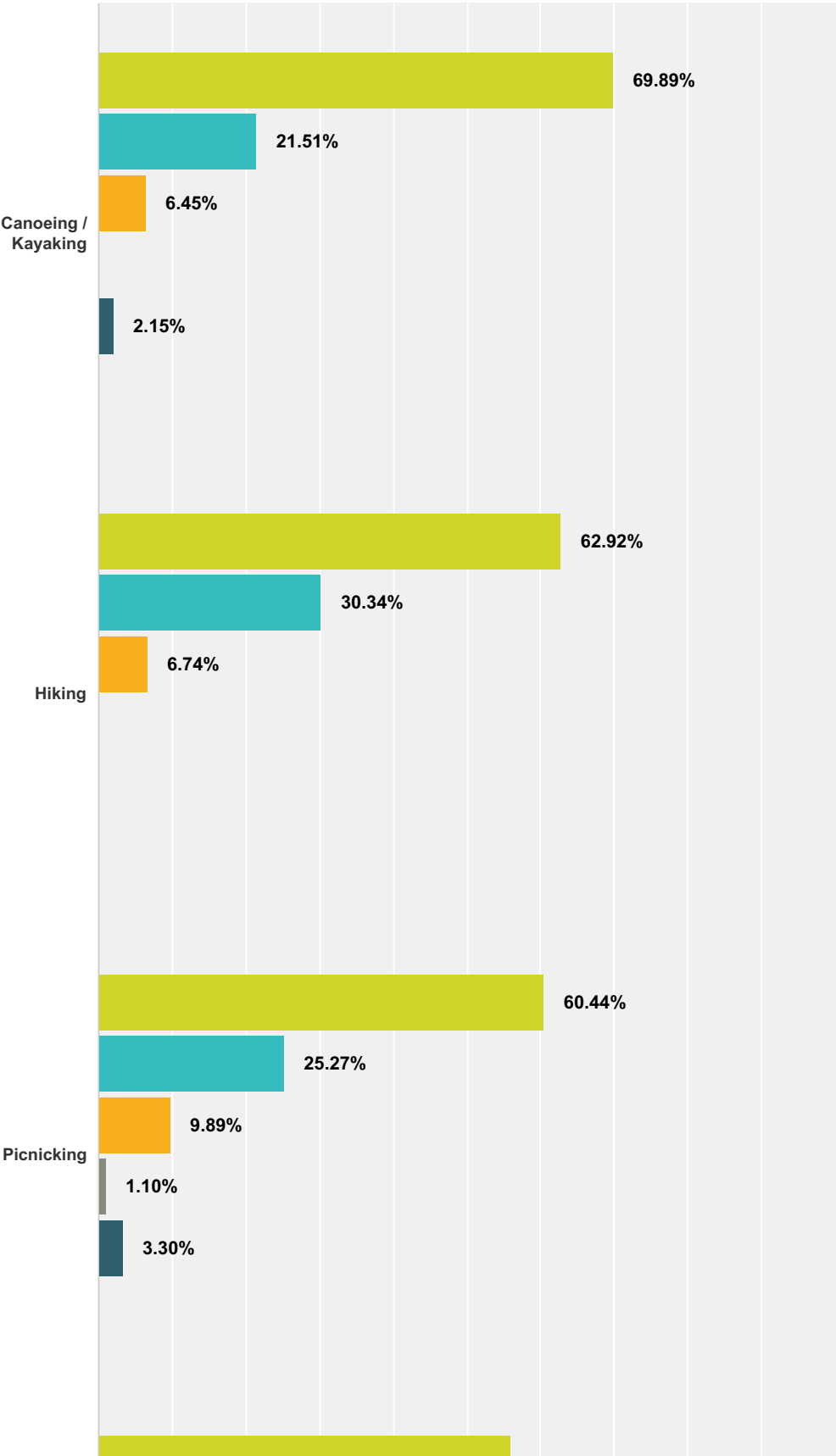
Answer Choices	Responses
Participate in a work party	71.26% 62
Help with cleanup	70.11% 61
Donate money	64.37% 56
Volunteer time for maintenance	37.93% 33
Teach a class	19.54% 17
Lead activities	19.54% 17
Donate equipment or materials	10.34% 9
Total Respondents: 87	

#	Other (please specify)	Date
1	help with dog park creation	5/19/2015 6:29 AM
2	serve on Camp Marion White "working group"	4/24/2015 7:58 PM
3	Make them pay taxes	4/24/2015 2:01 PM
4	A waste of money	4/24/2015 12:48 PM

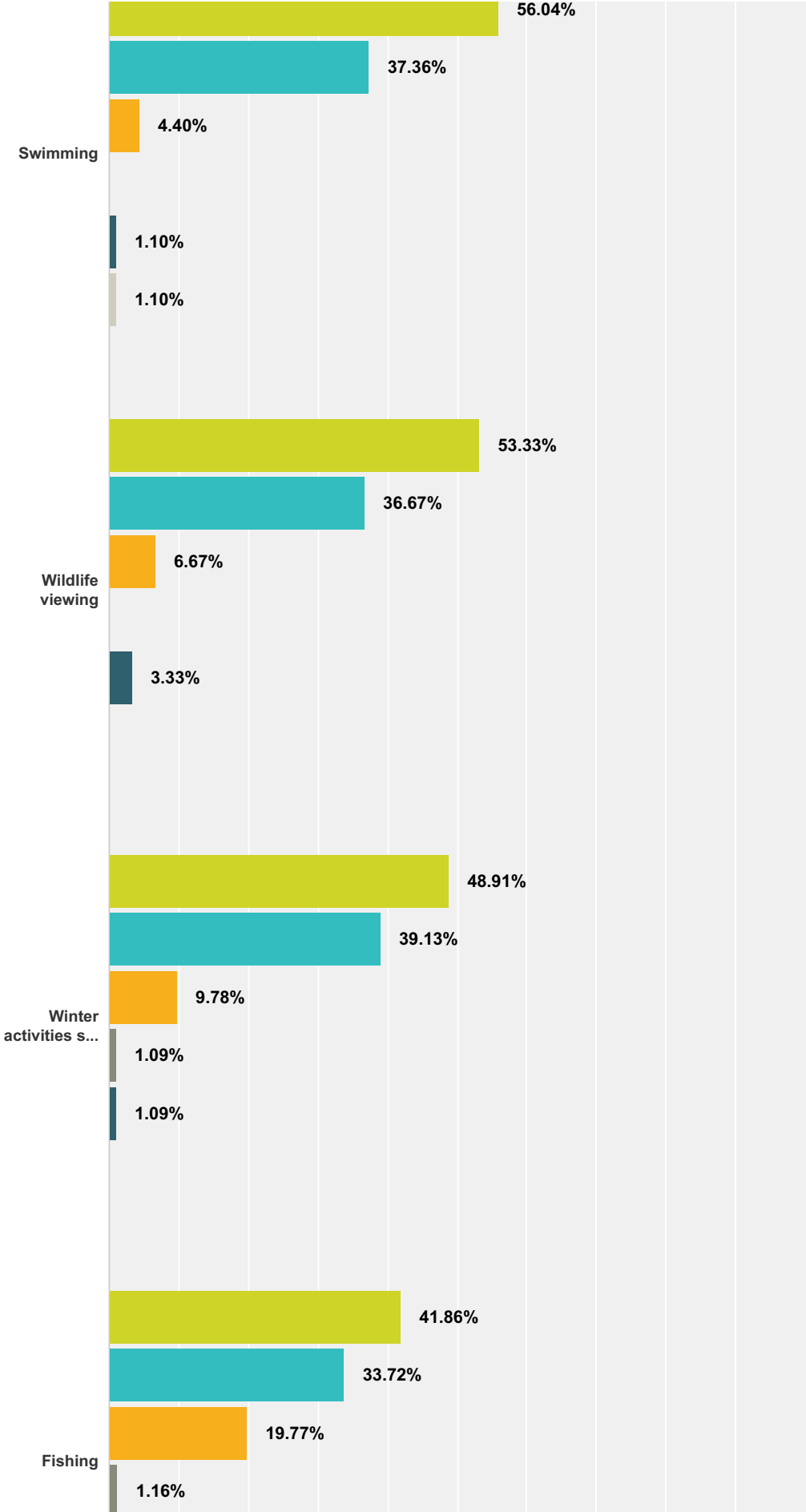
Q18 If Camp Marion White were to be

**purchased / preserved, what USES would
be important for you to see there?**

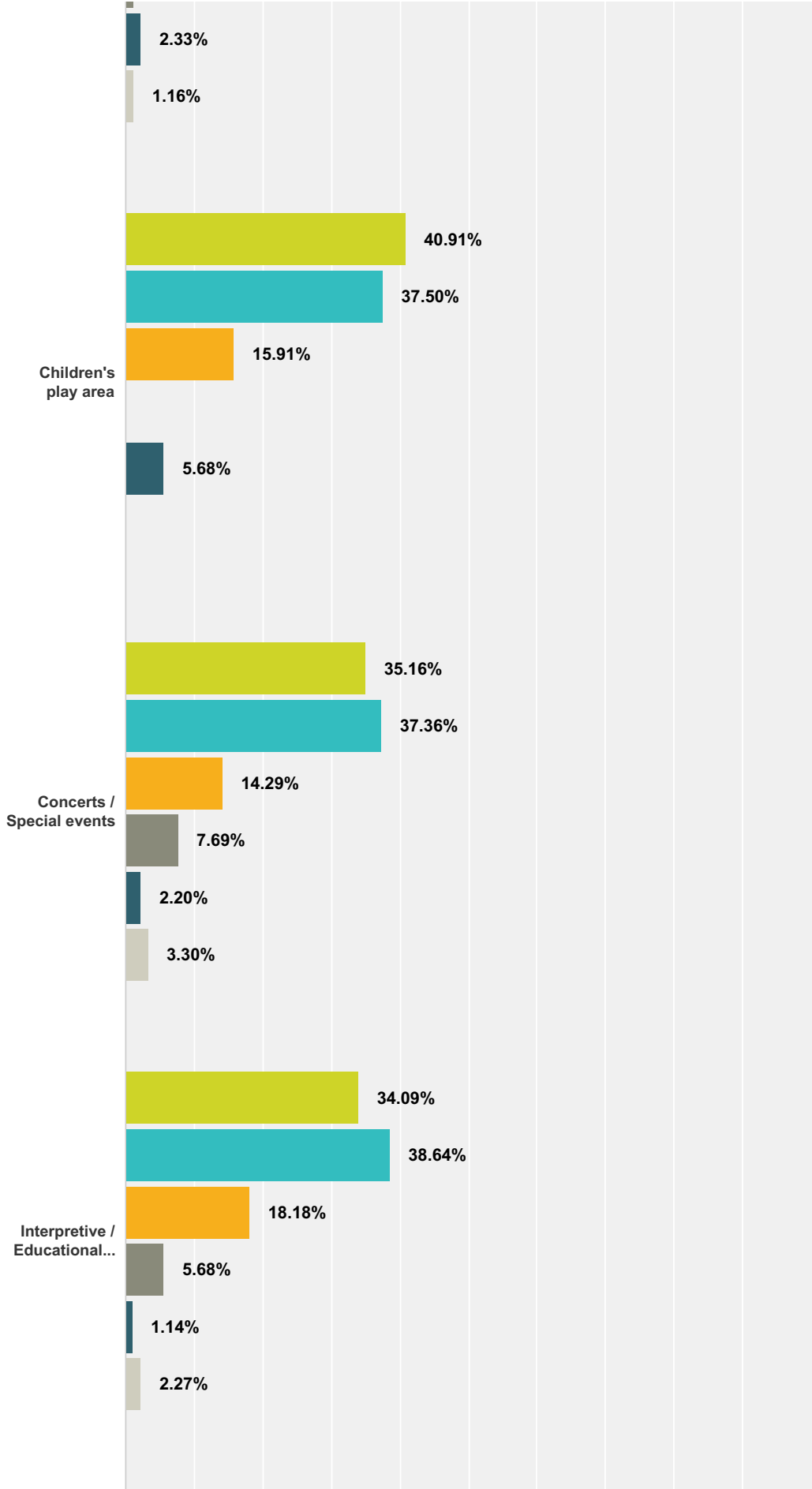
Answered: 93 Skipped: 20



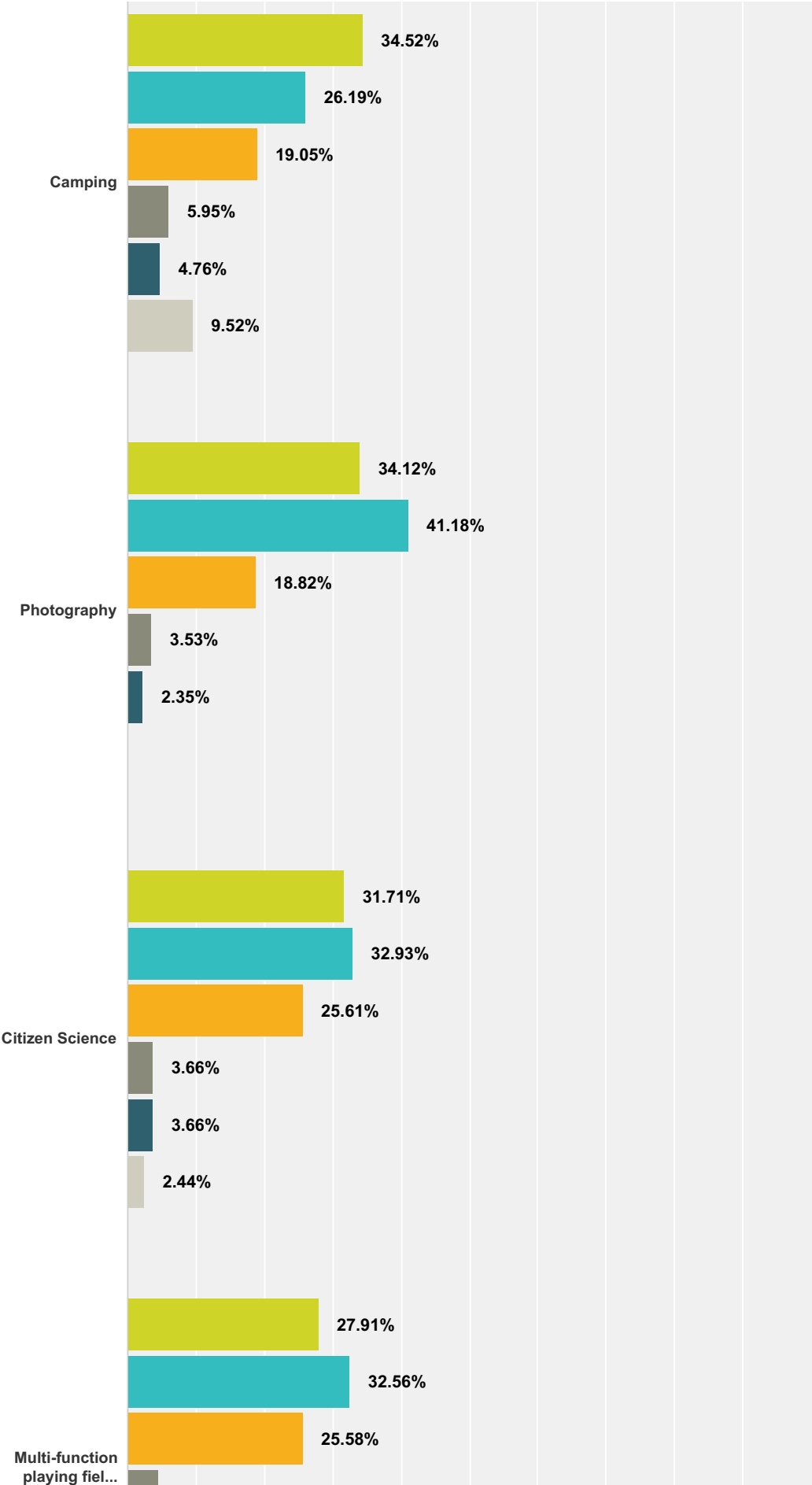
Richmond Open Space and Recreation Survey



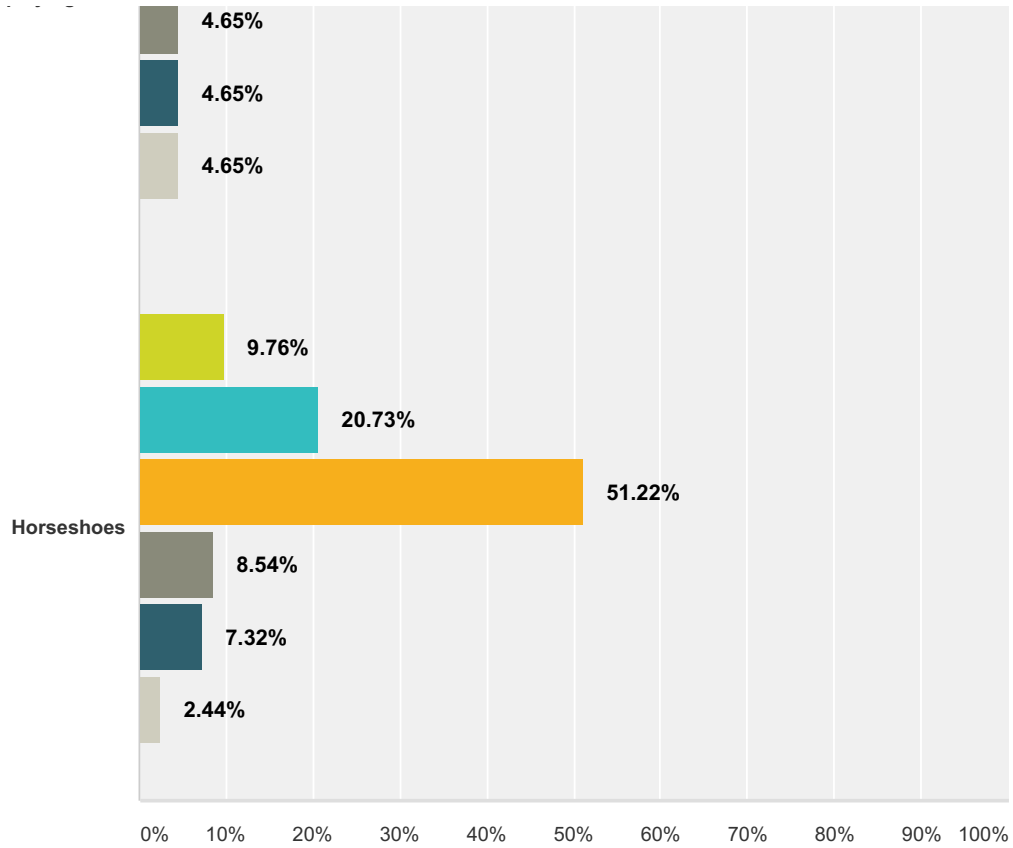
Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



■ Most important
 ■ Somewhat important
 ■ Neither important nor unimportant
 ■ Somewhat unimportant
 ■ Not important at all
 ■ Should not be allowed

	Most important	Somewhat important	Neither important nor unimportant	Somewhat unimportant	Not important at all	Should not be allowed	Total
Canoeing / Kayaking	69.89% 65	21.51% 20	6.45% 6	0.00% 0	2.15% 2	0.00% 0	93
Hiking	62.92% 56	30.34% 27	6.74% 6	0.00% 0	0.00% 0	0.00% 0	89
Picnicking	60.44% 55	25.27% 23	9.89% 9	1.10% 1	3.30% 3	0.00% 0	91
Swimming	56.04% 51	37.36% 34	4.40% 4	0.00% 0	1.10% 1	1.10% 1	91
Wildlife viewing	53.33% 48	36.67% 33	6.67% 6	0.00% 0	3.33% 3	0.00% 0	90
Winter activities such as ice skating, cross-country skiing and snowshoeing	48.91% 45	39.13% 36	9.78% 9	1.09% 1	1.09% 1	0.00% 0	92
Fishing	41.86% 36	33.72% 29	19.77% 17	1.16% 1	2.33% 2	1.16% 1	86
Children's play area	40.91% 36	37.50% 33	15.91% 14	0.00% 0	5.68% 5	0.00% 0	88
Concerts / Special events	35.16% 32	37.36% 34	14.29% 13	7.69% 7	2.20% 2	3.30% 3	91

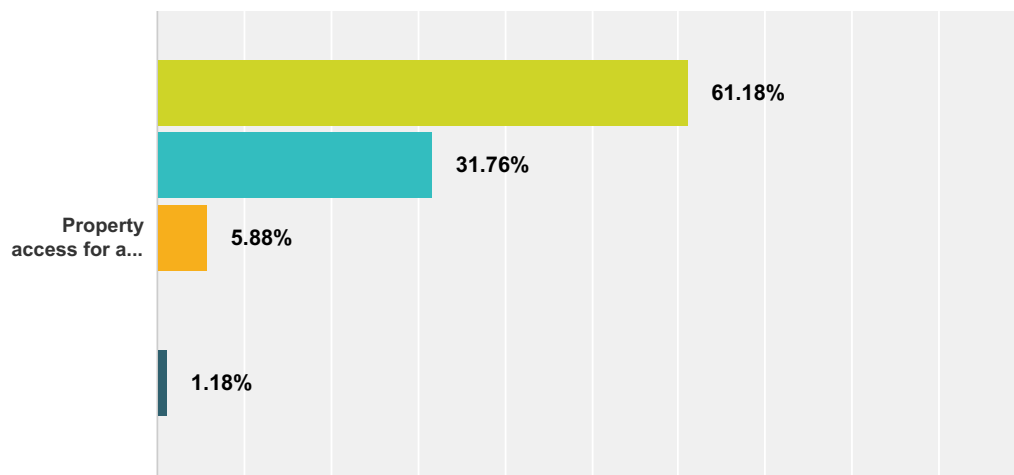
Richmond Open Space and Recreation Survey

Interpretive / Educational programming	34.09% 30	38.64% 34	18.18% 16	5.68% 5	1.14% 1	2.27% 2	88
Camping	34.52% 29	26.19% 22	19.05% 16	5.95% 5	4.76% 4	9.52% 8	84
Photography	34.12% 29	41.18% 35	18.82% 16	3.53% 3	2.35% 2	0.00% 0	85
Citizen Science	31.71% 26	32.93% 27	25.61% 21	3.66% 3	3.66% 3	2.44% 2	82
Multi-function playing fields or courts	27.91% 24	32.56% 28	25.58% 22	4.65% 4	4.65% 4	4.65% 4	86
Horseshoes	9.76% 8	20.73% 17	51.22% 42	8.54% 7	7.32% 6	2.44% 2	82

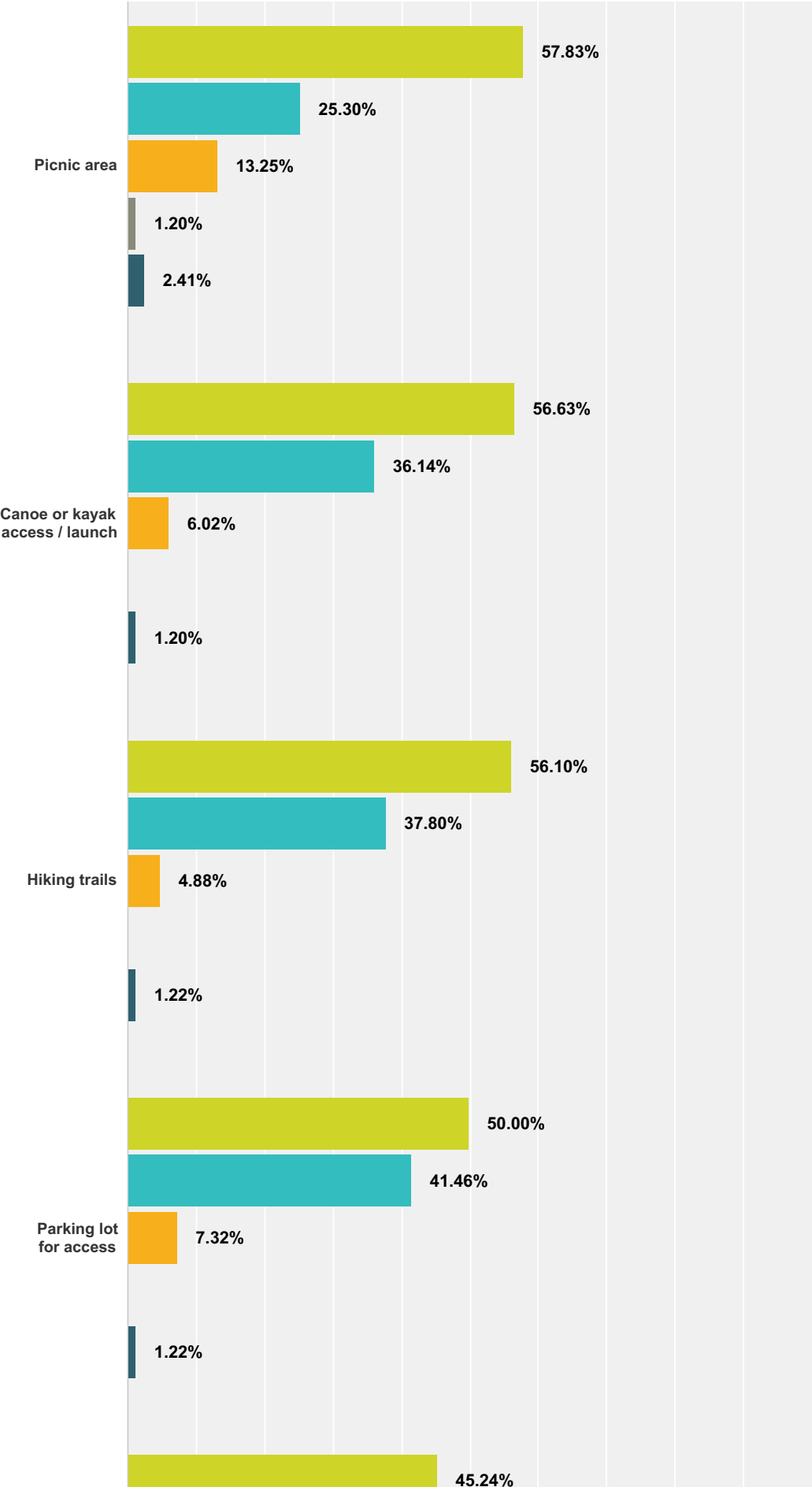
#	Other suggested uses (please specify)	Date
1	a handicapped access walking trail and swimming platform	5/29/2015 9:01 PM
2	Congregation Space for Teenagers	5/29/2015 12:11 PM
3	Continued support of scouting groups	5/26/2015 5:10 PM
4	dog park	5/19/2015 6:29 AM
5	rental for private use	5/13/2015 12:20 PM
6	Farm camp!	5/6/2015 9:33 PM
7	Handicapped! access!	4/26/2015 3:42 PM
8	allow the property to be rented for functions, group outings, company picnics	4/24/2015 5:19 PM
9	I think a private enterprise with Town restrictions would supply better capital and overall management of this area.	4/24/2015 2:05 PM
10	Dog park	4/24/2015 1:48 PM
11	I would like to see the annual town picnic at that location.	4/24/2015 1:27 PM

Q19 If Camp Marion White were to be purchased / preserved, what IMPROVEMENTS would be important for you to see there?

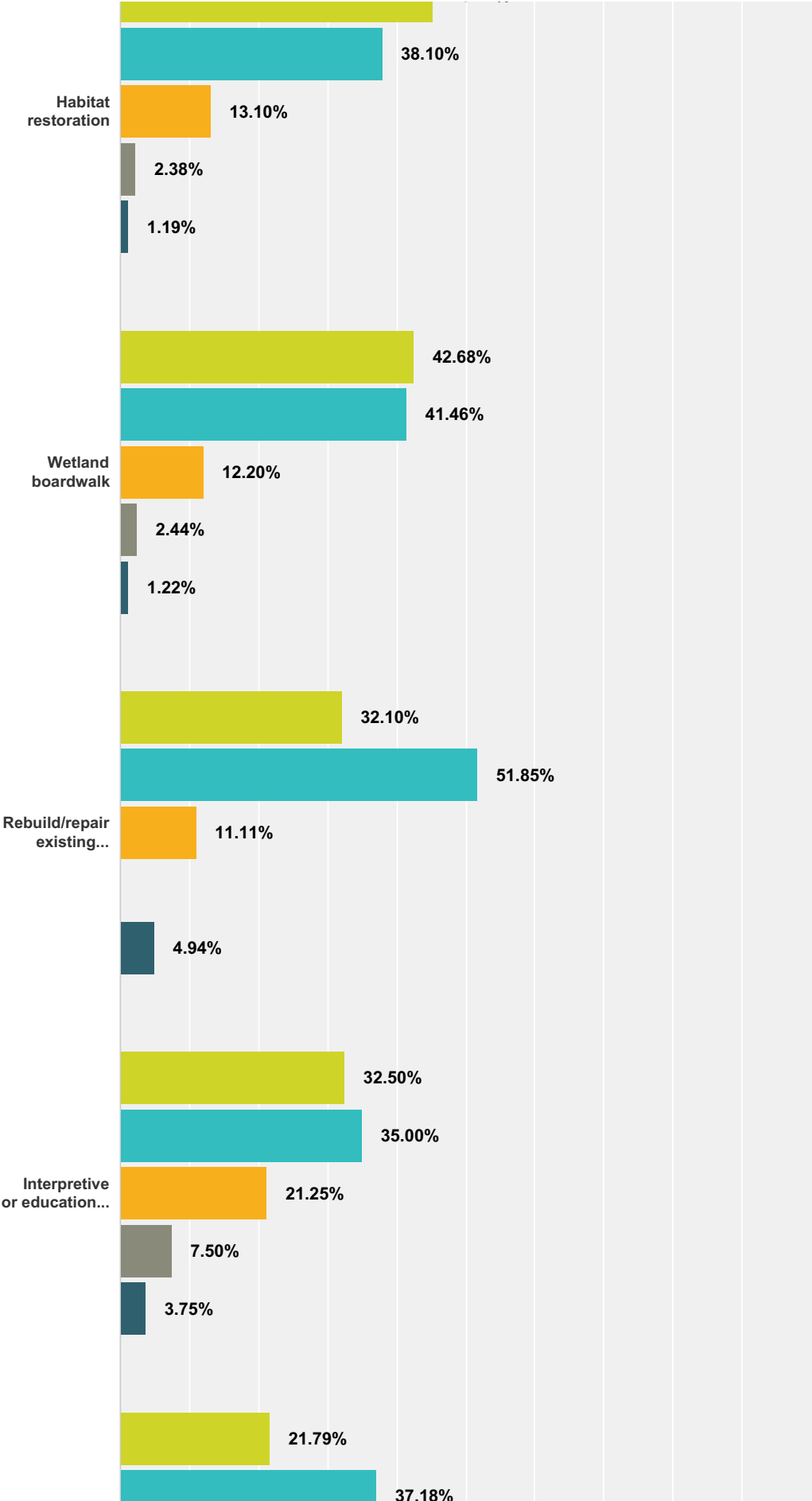
Answered: 88 Skipped: 25



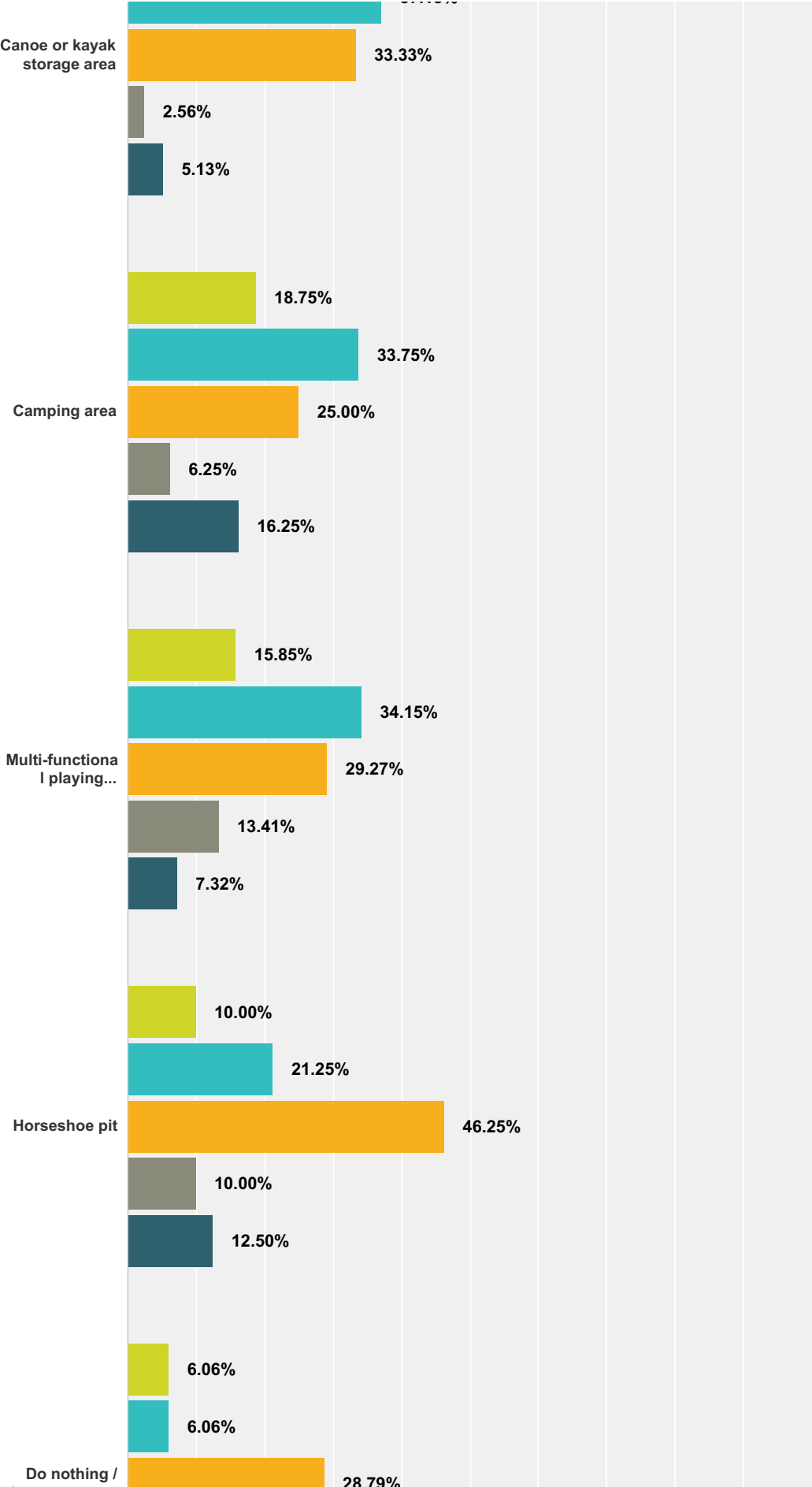
Richmond Open Space and Recreation Survey



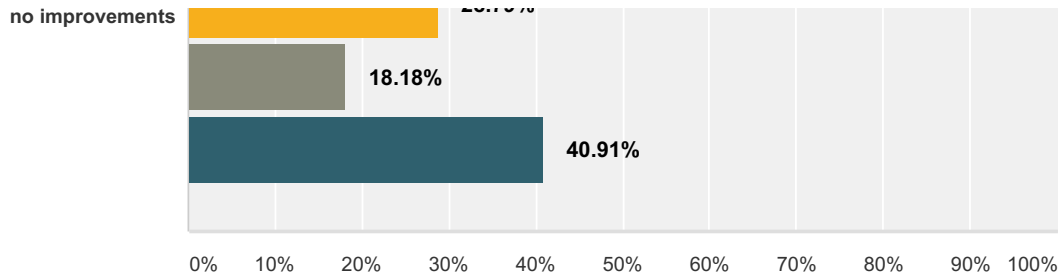
Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



Richmond Open Space and Recreation Survey



■ Most important
 ■ Somewhat unimportant
 ■ Not important at all

	Most important	Somewhat important	Neither important nor unimportant	Somewhat unimportant	Not important at all	Total
Property access for all ages and abilities	61.18% 52	31.76% 27	5.88% 5	0.00% 0	1.18% 1	85
Picnic area	57.83% 48	25.30% 21	13.25% 11	1.20% 1	2.41% 2	83
Canoe or kayak access / launch	56.63% 47	36.14% 30	6.02% 5	0.00% 0	1.20% 1	83
Hiking trails	56.10% 46	37.80% 31	4.88% 4	0.00% 0	1.22% 1	82
Parking lot for access	50.00% 41	41.46% 34	7.32% 6	0.00% 0	1.22% 1	82
Habitat restoration	45.24% 38	38.10% 32	13.10% 11	2.38% 2	1.19% 1	84
Wetland boardwalk	42.68% 35	41.46% 34	12.20% 10	2.44% 2	1.22% 1	82
Rebuild/repair existing buildings	32.10% 26	51.85% 42	11.11% 9	0.00% 0	4.94% 4	81
Interpretive or educational trail	32.50% 26	35.00% 28	21.25% 17	7.50% 6	3.75% 3	80
Canoe or kayak storage area	21.79% 17	37.18% 29	33.33% 26	2.56% 2	5.13% 4	78
Camping area	18.75% 15	33.75% 27	25.00% 20	6.25% 5	16.25% 13	80
Multi-functional playing fields or courts	15.85% 13	34.15% 28	29.27% 24	13.41% 11	7.32% 6	82
Horseshoe pit	10.00% 8	21.25% 17	46.25% 37	10.00% 8	12.50% 10	80
Do nothing / no improvements	6.06% 4	6.06% 4	28.79% 19	18.18% 12	40.91% 27	66

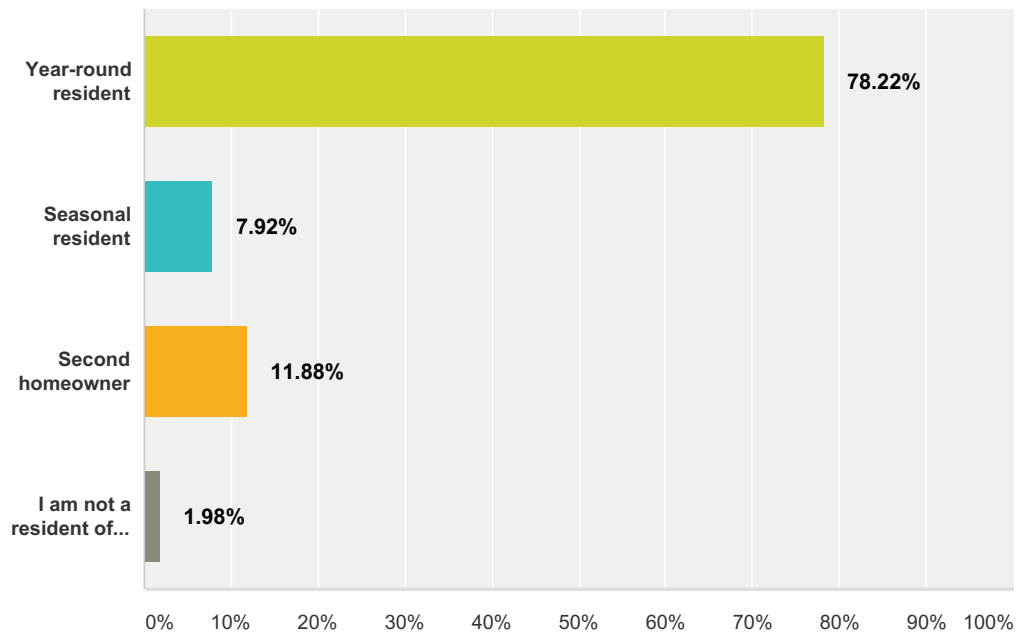
#	Other suggested improvements (please specify)	Date
1	I cannot answer any questions about Camp Marion White at this time.	6/5/2015 2:05 PM
2	bathroom	5/29/2015 9:01 PM
3	BUILD A GOLF COURSE	5/29/2015 4:07 PM

Richmond Open Space and Recreation Survey

4	See Above	5/29/2015 12:11 PM
5	Re establish appropriate fire pits	5/26/2015 5:10 PM
6	Never been so do not know what's needed	5/22/2015 8:34 PM
7	fenced area for dog park, 3+ acres	5/19/2015 6:29 AM
8	Preserve it from unrestricted development. "Affordable housing complex for Richmond seniors with lakefront view?"	5/14/2015 10:24 PM
9	Fitness trail with stops where participants do an exercise, then go on.	5/13/2015 10:23 PM
10	Connecting into Richmond sewer & Pittsfield water source.	4/24/2015 7:58 PM
11	Fix the roads and culverts	4/24/2015 2:01 PM
12	Repair buildings to the extent they present a risk or are useful toward a documented plan.	4/24/2015 1:27 PM
13	Don't know the area at all	4/24/2015 1:07 PM
14	Don't know the property well enough to know	4/24/2015 12:50 PM
15	children's play area	4/24/2015 12:41 PM

Q20 Are you a year-round resident, seasonal resident, or second homeowner in Richmond?

Answered: 101 Skipped: 12



Answer Choices	Responses
Year-round resident	78.22% 79
Seasonal resident	7.92% 8
Second homeowner	11.88% 12
I am not a resident of Richmond	1.98% 2

Richmond Open Space and Recreation Survey

Total

101

Q21 What is your age?

Answered: 95 Skipped: 18

#	Responses	Date
1	45-64 48	6/9/2015 4:22 PM
2	45-64 52	6/7/2015 9:00 PM
3	45-64 51	6/5/2015 11:36 AM
4	20-44 37	6/4/2015 10:26 PM
5	65+ 89	6/2/2015 10:51 AM
6	65+ 83	6/1/2015 5:07 PM
7	65+ 66	5/31/2015 1:41 PM
8	na	5/29/2015 9:01 PM
9	20-44 43	5/29/2015 4:08 PM
10	45-64 60+	5/29/2015 12:11 PM
11	45-64 56	5/29/2015 11:44 AM
12	65+ 78	5/29/2015 11:11 AM
13	45-64 55	5/28/2015 9:49 PM
14	45-64 60	5/27/2015 9:49 AM
15	45-64 46	5/26/2015 5:11 PM
16	45-64 55	5/26/2015 1:31 PM
17	45-64 54	5/24/2015 1:44 PM
18	45-64 55	5/24/2015 11:15 AM
19	65+ 80	5/24/2015 7:40 AM
20	45-64 63	5/22/2015 8:35 PM
21	65+ 69	5/22/2015 8:19 PM
22	65+ 76	5/22/2015 11:10 AM
23	20-44 low 40"s	5/22/2015 11:02 AM
24	65+ 70-75	5/22/2015 10:44 AM
25	65+ 65	5/22/2015 10:44 AM
26	45-64 60+	5/20/2015 5:51 PM
27	65+ 70	5/19/2015 4:50 PM
28	45-64 46	5/19/2015 6:29 AM
29	45-64 64	5/18/2015 11:22 AM
30	65+ 80	5/17/2015 2:37 PM
31	65+ 65	5/17/2015 12:51 PM
32	65+ 76	5/16/2015 12:18 PM

Richmond Open Space and Recreation Survey

33	20-44 37	5/15/2015 10:41 AM
34	65+ 79	5/15/2015 9:46 AM
35	45-64 60	5/14/2015 10:24 PM
36	65+ 69 years	5/14/2015 3:42 PM
37	65+ 80	5/13/2015 10:24 PM
38	45-64 64	5/13/2015 8:33 PM
39	65+ 85 yrs.	5/13/2015 3:03 PM
40	65+ 74	5/13/2015 12:53 PM
41	45-64 59	5/13/2015 12:20 PM
42	45-64 63	5/10/2015 3:53 PM
43	65+ 71	5/10/2015 8:47 AM
44	65+ 69	5/8/2015 3:42 PM
45	20-44 32	5/8/2015 2:16 PM
46	65+ 73	5/8/2015 11:01 AM
47	20-44 43	5/6/2015 9:33 PM
48	65+ 66	5/6/2015 8:57 PM
49	65+ 70	5/6/2015 7:19 PM
50	65+ 65	5/5/2015 8:10 AM
51	45-64 51	5/2/2015 12:06 PM
52	65+ 76	5/2/2015 12:11 AM
53	45-64 50	5/1/2015 10:08 AM
54	65+ 80=	4/30/2015 9:06 AM
55	20-44 42	4/29/2015 7:36 PM
56	65+ 77	4/29/2015 9:20 AM
57	45-64 54	4/29/2015 5:58 AM
58	65+ 72	4/28/2015 10:38 AM
59	65+ 80 years	4/27/2015 1:08 PM
60	45-64 54	4/27/2015 12:48 PM
61	45-64 52	4/27/2015 10:42 AM
62	20-44 34	4/26/2015 9:20 PM
63	65+ 67	4/26/2015 4:09 PM
64	45-64 53	4/26/2015 3:42 PM
65	65+ 66	4/26/2015 9:02 AM
66	20-44 40	4/26/2015 8:53 AM
67	45-64 60	4/25/2015 11:03 AM
68	65+ 66	4/25/2015 9:06 AM
69	65+ 66	4/25/2015 6:37 AM
70	45-64 55	4/24/2015 8:01 PM

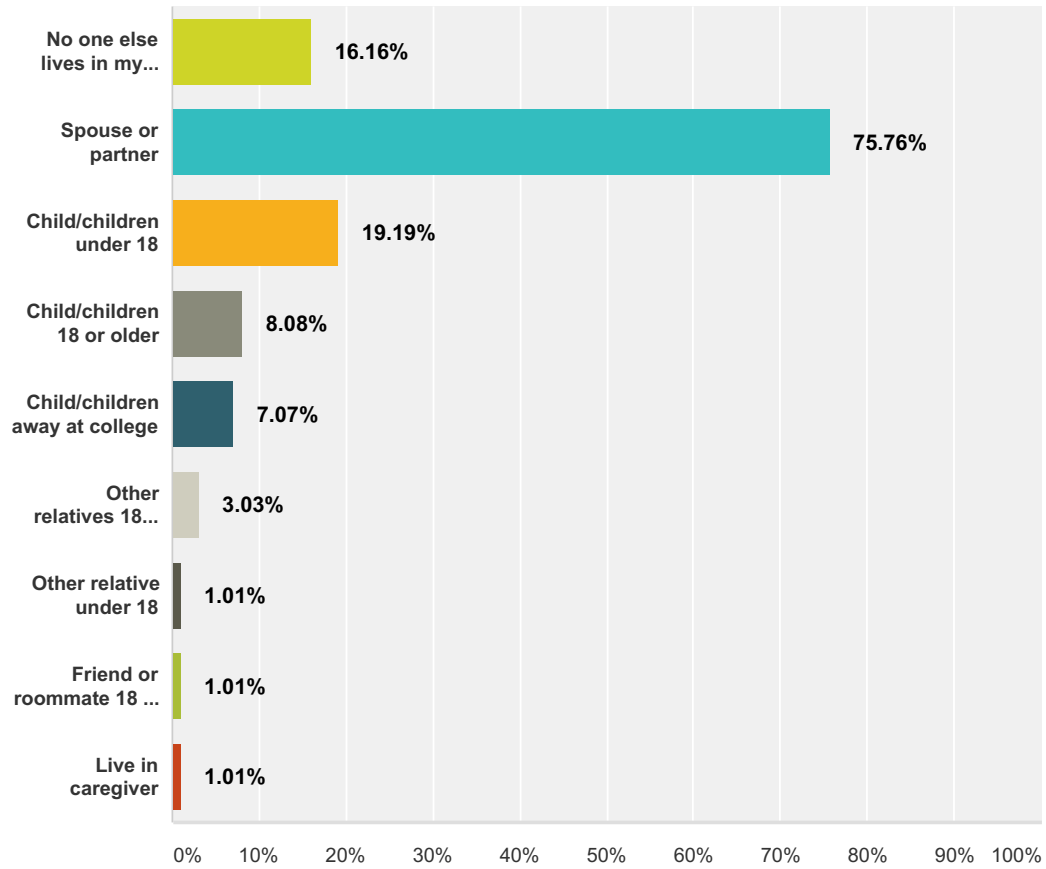
Richmond Open Space and Recreation Survey

71	65+ 67	4/24/2015 7:59 PM
72	20-44 21+	4/24/2015 7:31 PM
73	65+ 77	4/24/2015 5:54 PM
74	20-44 44	4/24/2015 5:19 PM
75	45-64 59	4/24/2015 4:55 PM
76	65+ 68	4/24/2015 3:14 PM
77	65+ eligible for social security	4/24/2015 2:38 PM
78	65+ 74	4/24/2015 2:38 PM
79	65+ 65	4/24/2015 2:20 PM
80	45-64 62	4/24/2015 2:06 PM
81	Old enough to know better	4/24/2015 2:02 PM
82	45-64 57	4/24/2015 1:49 PM
83	65+ 65	4/24/2015 1:48 PM
84	65+ 67	4/24/2015 1:28 PM
85	20-44 30	4/24/2015 1:21 PM
86	20-44 29	4/24/2015 1:08 PM
87	45-64 64	4/24/2015 1:07 PM
88	45-64 58	4/24/2015 1:00 PM
89	45-64 61	4/24/2015 12:53 PM
90	65+ 65	4/24/2015 12:50 PM
91	45-64 54	4/24/2015 12:48 PM
92	65+ 70	4/24/2015 12:42 PM
93	65+ 68	4/24/2015 12:37 PM
94	45-64 60	4/24/2015 12:36 PM
95	20-44 40	4/24/2015 12:35 PM

**Q22 In addition to you, who else lives in
your home? (Check all that apply)**

Answered: 99 Skipped: 14

Richmond Open Space and Recreation Survey



Answer Choices	Responses	
No one else lives in my house	16.16%	16
Spouse or partner	75.76%	75
Child/children under 18	19.19%	19
Child/children 18 or older	8.08%	8
Child/children away at college	7.07%	7
Other relatives 18 or older	3.03%	3
Other relative under 18	1.01%	1
Friend or roommate 18 or older	1.01%	1
Live in caregiver	1.01%	1
Total Respondents: 99		



APPENDIX E: POTENTIAL WALKING LOOP MAPS





APPENDIX F: BIOMAP2 REPORTS

BioMap2

CONSERVING THE BIODIVERSITY OF
MASSACHUSETTS IN A CHANGING WORLD

Richmond

Produced in 2012

This report and associated map provide information about
important sites for biodiversity conservation in your area.

**This information is intended for conservation planning, and is
not intended for use in state regulations.**





Table of Contents

Introduction

What is *BioMap2* – Purpose and applications

One plan, two components

Understanding Core Habitat and its components

Understanding Critical Natural Landscape and its components

Understanding Core Habitat and Critical Natural Landscape Summaries

Sources of Additional Information

Richmond Overview

Core Habitat and Critical Natural Landscape Summaries

Elements of *BioMap2* Cores

Core Habitat Summaries

Elements of *BioMap2* Critical Natural Landscapes

Critical Natural Landscape Summaries





Introduction

The Massachusetts Department of Fish & Game, through the Division of Fisheries and Wildlife's Natural Heritage & Endangered Species Program (NHESP), and The Nature Conservancy's Massachusetts Program developed *BioMap2* to protect the state's biodiversity in the context of climate change.

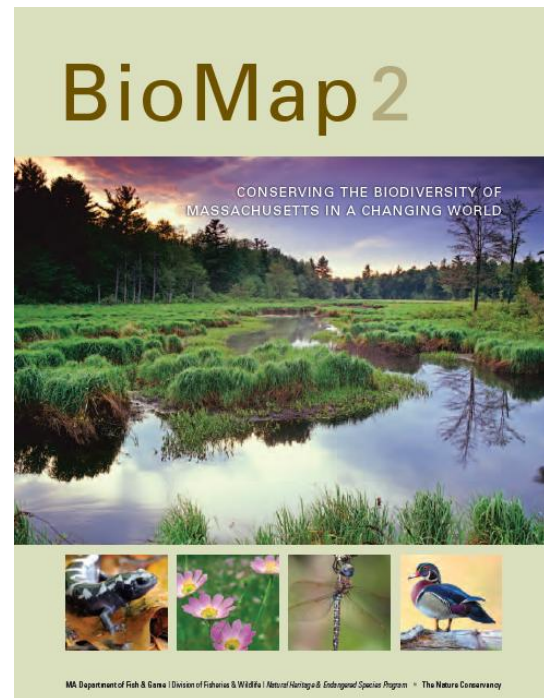
BioMap2 combines NHESP's 30 years of rigorously documented rare species and natural community data with spatial data identifying wildlife species and habitats that were the focus of the Division of Fisheries and Wildlife's 2005 State Wildlife Action Plan (SWAP). *BioMap2* also integrates The Nature Conservancy's assessment of large, well-connected, and intact ecosystems and landscapes across the Commonwealth, incorporating concepts of ecosystem resilience to address anticipated climate change impacts.

Protection and stewardship of *BioMap2* Core Habitat and Critical Natural Landscape is essential to safeguard the diversity of species and their habitats, intact ecosystems, and resilient natural landscapes across Massachusetts.

What Does Status Mean?

The Division of Fisheries and Wildlife determines a status category for each rare species listed under the Massachusetts Endangered Species Act (MESA), M.G.L. c.131A, and its implementing regulations 321 CMR 10.00. Rare species are categorized as Endangered, Threatened or of Special Concern according to the following:

- Endangered species are in danger of extinction throughout all or a significant portion of their range or are in danger of extirpation from Massachusetts.



Get your copy of the *BioMap2* report! Download from www.mass.gov/nhesp or contact Natural Heritage at 508-389-6360 or natural.heritage@state.ma.us.

- Threatened species are likely to become Endangered in Massachusetts in the foreseeable future throughout all or a significant portion of their range.
- Special Concern species have suffered a decline that could threaten the species if allowed to continue unchecked or occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become Threatened in Massachusetts.

In addition NHESP maintains an unofficial watch list of plants that are tracked due to potential conservation interest or concern, but are not regulated under the Massachusetts Endangered Species Act or other laws or regulations. Likewise, described natural communities are not regulated by any law or regulations, but they can help to identify





ecologically important areas that are worthy of protection. The status of natural communities reflects the documented number and acreages of each community type in the state:

- Critically Imperiled communities typically have 5 or fewer documented good sites or have very few remaining acres in the state.
- Imperiled communities typically have 6-20 good sites or few remaining acres in the state.
- Vulnerable communities typically have 21-100 good sites or limited acreage across the state.
- Secure communities typically have over 100 sites or abundant acreage across the state; however, excellent examples are identified as Core Habitat to ensure continued protection.

In 2005 the Massachusetts Division of Fisheries and Wildlife completed a comprehensive State Wildlife Action Plan (SWAP) documenting the status of Massachusetts wildlife and providing recommendations to help guide wildlife conservation decision-making. SWAP includes all the wildlife species listed under the Massachusetts Endangered Species Act (MESA), as well as more than 80 species that need conservation attention but do not meet the requirements for inclusion under MESA. The SWAP document is organized around habitat types in need of conservation within the Commonwealth. While the original BioMap focused primarily on rare species protected under MESA, *BioMap2* also addresses other Species of Conservation Concern, their habitats, and the ecosystems that support them to create a spatial representation of most of the elements of SWAP.

BioMap2: One Plan, Two Components

BioMap2 identifies two complementary spatial layers, Core Habitat and Critical Natural Landscape.

Core Habitat identifies key areas that are critical for the long-term persistence of rare species and other Species of Conservation Concern, as well as a wide diversity of natural communities and intact ecosystems across the Commonwealth. Protection of Core Habitats will contribute to the conservation of specific elements of biodiversity.

Critical Natural Landscape identifies large natural Landscape Blocks that are minimally impacted by development. If protected, these areas will provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience to natural and anthropogenic disturbances in a rapidly changing world. Areas delineated as Critical Natural Landscape also include buffering upland around wetland, coastal, and aquatic Core Habitats to help ensure their long-term integrity.

The long-term persistence of Massachusetts biological resources requires a determined commitment to land and water conservation. Protection and stewardship of both Critical Natural Landscapes and Core Habitats are needed to realize the biodiversity conservation vision of *BioMap2*.

Components of Core Habitat

Core Habitat identifies specific areas necessary to promote the long-term persistence of rare species, other Species of Conservation Concern, exemplary natural communities, and intact ecosystems.

Rare Species

There are 432 native plant and animal species listed as Endangered, Threatened or Special Concern under the Massachusetts Endangered Species Act (MESA) based on their rarity, population trends, and threats to survival. For





Table 1. Species of Conservation Concern described in the State Wildlife Action Plan and/or included on the MESA List and for which habitat was mapped in *BioMap2*. Note that plants are not included in SWAP, and that marine species such as whales and sea turtles are not included in *BioMap2*.

Taxonomic Group	MESA-listed Species	Non-listed Species of Conservation Concern
Mammals	4	5
Birds	27	23
Reptiles	10	5
Amphibians	4	3
Fish	10	17
Invertebrates	102	9
Plants	256	0
Total	413	62

BioMap2, NHESP staff identified the highest quality habitat sites for each non-marine species based on size, condition, and landscape context.

Other Species of Conservation Concern

In addition to species on the MESA List described previously, the State Wildlife Action Plan (SWAP) identifies 257 wildlife species and 22 natural habitats most in need of conservation within the Commonwealth. *BioMap2* includes species-specific habitat areas for 45 of these species and habitat for 17 additional species which was mapped with other coarse-filter and fine-filter approaches.

Priority Natural Communities

Natural communities are assemblages of plant and animal species that share a common environment and occur together repeatedly on the landscape. *BioMap2* gives conservation

priority to natural communities with limited distribution and to the best examples of more common types.

Vernal Pools

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

Forest Cores

In *BioMap2*, Core Habitat includes the best examples of large, intact forests that are least impacted by roads and development, providing critical habitat for numerous woodland species. For example, the interior forest habitat defined by Forest Cores supports many bird species sensitive to the impacts of roads and development, such as the Black-throated Green Warbler, and helps maintain ecological processes found only in unfragmented forest patches.

Wetland Cores

BioMap2 used an assessment of Ecological Integrity to identify the least disturbed wetlands in the state within undeveloped landscapes—those with intact buffers and little fragmentation or other stressors associated with development. These wetlands are most likely to support critical wetland functions (i.e., natural hydrologic conditions, diverse plant and animal habitats, etc.) and are most likely to maintain these functions into the future.

Aquatic Cores

To delineate integrated and functional ecosystems for fish species and other aquatic





Species of Conservation Concern, beyond the species and exemplary habitats described above, *BioMap2* identifies intact river corridors within which important physical and ecological processes of the river or stream occur.

Components of Critical Natural Landscape

Critical Natural Landscape identifies intact landscapes in Massachusetts that are better able to support ecological processes and disturbance regimes, and a wide array of species and habitats over long time frames.

Landscape Blocks

BioMap2 identifies the most intact large areas of predominately natural vegetation, consisting of contiguous forests, wetlands, rivers, lakes, and ponds, as well as coastal habitats such as barrier beaches and salt marshes.

Upland Buffers of Wetland and Aquatic Cores

A variety of analyses were used to identify protective upland buffers around wetlands and rivers.

Upland Habitat to Support Coastal Adaptation

BioMap2 identifies undeveloped lands adjacent to and up to one and a half meters above existing salt marshes as Critical Natural Landscapes with high potential to support inland migration of salt marsh and other coastal habitats over the coming century.

The conservation areas identified by *BioMap2* are based on breadth and depth of data, scientific expertise, and understanding of Massachusetts' biodiversity. The numerous sources of information and analyses used to

Legal Protection of Biodiversity

BioMap2 presents a powerful vision of what Massachusetts would look like with full protection of the land most important for supporting the Commonwealth's biodiversity. While *BioMap2* is a planning tool with *no regulatory function*, all state-listed species enjoy legal protection under the [Massachusetts Endangered Species Act \(M.G.L. c.131A\)](#) and its implementing regulations ([321 CMR 10.00](#)). Wetland habitat of state-listed wildlife is also protected under the [Wetlands Protection Act Regulations \(310 CMR 10.00\)](#). The *Natural Heritage Atlas* contains maps of [Priority Habitats and Estimated Habitats](#), which are used, respectively, for regulation under the Massachusetts Endangered Species Act and the Wetlands Protection Act. For more information on rare species regulations, and to view Priority and Estimated Habitat maps, please see the [Regulatory Review](#) page at <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/>.

BioMap2 is a conservation planning tool that does not, in any way, supplant the Estimated and Priority Habitat Maps which have regulatory significance. Unless and until the BioMap2 vision is fully realized, we must continue to protect our most imperiled species and their habitats.

create Core Habitat and Critical Natural Landscape are complementary, and outline a comprehensive conservation vision for Massachusetts, from rare species to intact landscapes. In total, these robust analyses define a suite of priority lands and waters that, if permanently protected, will support Massachusetts' natural systems for generations to come.





Understanding Core Habitat Summaries

Following the Town Overview, there is a descriptive summary of each Core Habitat and Critical Natural Landscape that occurs in your city or town. These summaries highlight some of the outstanding characteristics of each Core Habitat and Critical Natural Landscape, and will help you learn more about your city or town's biodiversity. You can find out more information about many of these species and natural communities by looking at specific fact sheets at www.mass.gov/nhesp.

Additional Information

For copies of the full *BioMap2* report, the Technical Report, and an [interactive mapping tool](#), visit the *BioMap2* [website](#) via the Land Protection and Planning tab at www.mass.gov/nhesp. If you have any questions about this report, or if you need help protecting land for biodiversity in your community, the Natural Heritage & Endangered Species Program staff looks forward to working with you.

Contact the Natural Heritage & Endangered Species Program

By phone 508-389-6360
By fax 508-389-7890
By email natural.heritage@state.ma.us
By Mail 100 Hartwell Street, Suite 230
West Boylston, MA 01583

The GIS datalayers of *BioMap2* are available for download from MassGIS at www.mass.gov/mgis.



**Natural Heritage
& Endangered
Species Program**

Massachusetts Division of Fisheries and Wildlife
1 Rabbit Hill Road, Westborough, MA 01581
phone: 508-389-6360 fax: 508-389-7890

For more information on rare species and natural communities, please see our fact sheets online at www.mass.gov/nhesp.



Town Overview

Richmond lies on the border of the Taconic Mountains and the Western New England Marble Valleys/Berkshire Valley/Housatonic and Hoosic Valley Ecoregions. The Taconic Mountains Ecoregion is an area of high hills and low mountains that contain the highest point in the state, Mt. Greylock. Streams are high gradient and lakes and ponds are rare. Vegetation is generally northern hardwoods with some spruce-fir at higher elevations. The Western New England Marble Valleys Ecoregion is an area drained by the Hoosic and Housatonic Rivers. This ecoregion harbors farms, evergreen forests, transition and northern hardwood forests, and calcareous fens. The limestone-rich bedrock in the area creates alkaline lakes and streams.



Richmond at a Glance

- Total Area: 12,178 acres (19.0 square miles)
- Human Population in 2010: 1,475
- Open space protected in perpetuity: 993 acres, or 8.2% percent of total area*
- BioMap2 Core Habitat: 1,830 acres
- BioMap2 Core Habitat Protected: 218 acres or 11.9%
- BioMap2 Critical Natural Landscape: 3,759 acres
- BioMap2 Critical Natural Landscape Protected: 401 acres or 10.7%.

BioMap2 Components

Core Habitat

- 5 Exemplary or Priority Natural Community Cores
- 1 Forest Core
- 3 Wetland Cores
- 9 Aquatic Cores
- 19 Species of Conservation Concern Cores**
 - 4 birds, 1 amphibian, 1 fish, 1 insect, 14 plants

Critical Natural Landscape

- 2 Landscape Blocks
- 6 Wetland Core Buffers
- 8 Aquatic Core Buffers

* Calculated using MassGIS data layer "Protected and Recreational Open Space—March, 2012".

** See next pages for complete list of species, natural communities and other biodiversity elements.

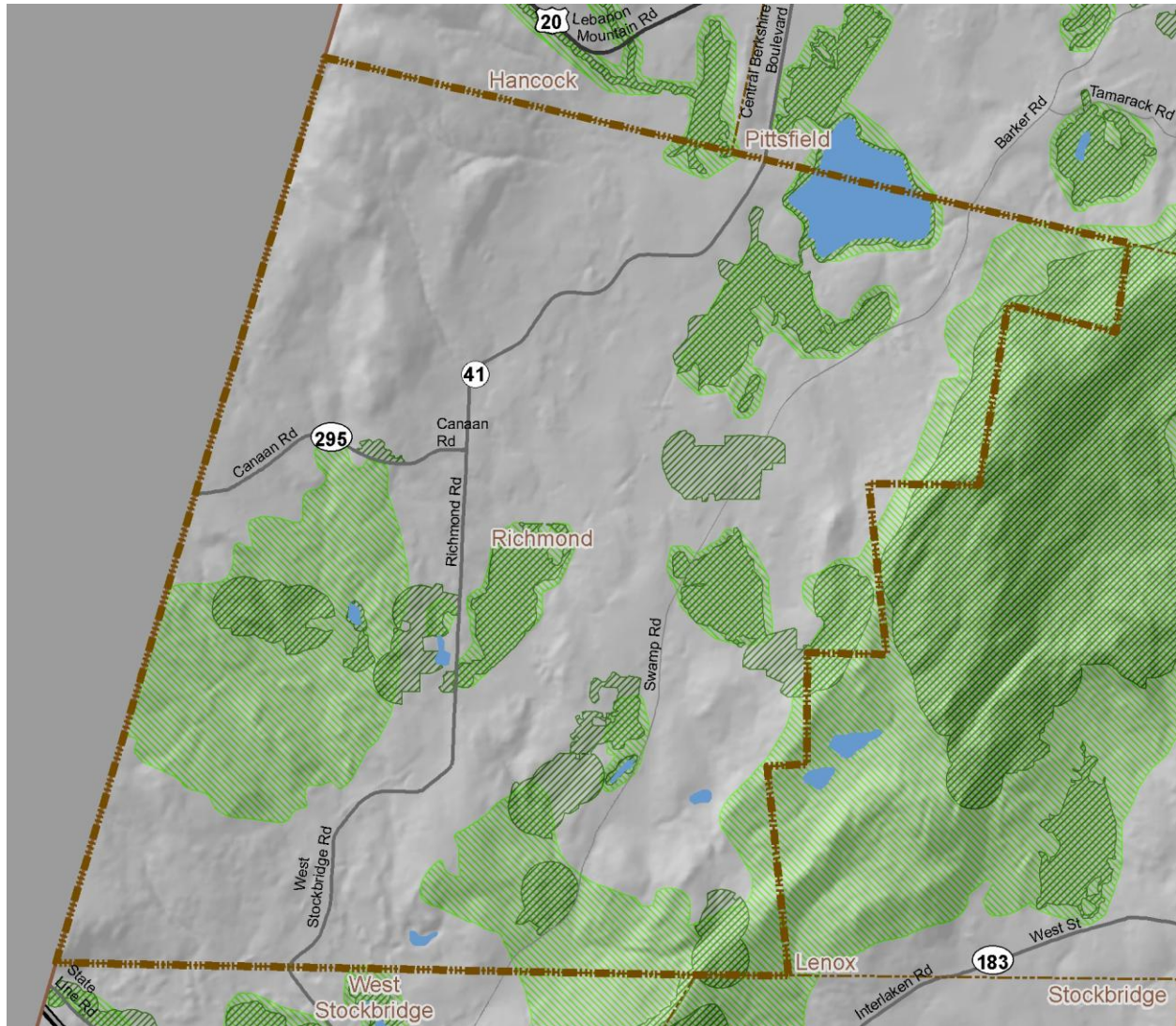




BioMap2

Conserving the Biodiversity of Massachusetts in a Changing World

BioMap2 Core Habitat and Critical Natural Landscape in Richmond

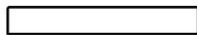


BioMap2 Core Habitat



BioMap2 Critical Natural Landscape

1 Mile



**Natural Heritage
& Endangered
Species Program**

Massachusetts Division of Fisheries and Wildlife

1 Rabbit Hill Road, Westborough, MA 01581

phone: 508-389-6360 fax: 508-389-7890

For more information on rare species and natural communities, please see our fact sheets online at www.mass.gov/nhesp.



**Species of Conservation Concern, Priority and Exemplary Natural Communities,
and Other Elements of Biodiversity in Richmond**

Insects

Butterflies

[Dion Skipper](#), (*Euphyes dion*), T

Amphibians

[Jefferson Salamander](#), (*Ambystoma jeffersonianum*), SC

Fishes

[Bridle Shiner](#), (*Notropis bifrenatus*), SC

Birds

[American Bittern](#), (*Botaurus lentiginosus*), E

[Sedge Wren](#), (*Cistothorus platensis*), E

[Common Moorhen](#), (*Gallinula chloropus*), SC

[Sora](#), (*Porzana carolina*), Non-listed SWAP

Plants

[Lyre-leaved Rock-cress](#), (*Arabis lyrata*), E

[Foxtail Sedge](#), (*Carex alopecoidea*), T

[Creeping Sedge](#), (*Carex chordorrhiza*), E

[Hitchcock's Sedge](#), (*Carex hitchcockiana*), SC

[Fen Sedge](#), (*Carex tetanica*), SC

[Hemlock Parsley](#), (*Conioselinum chinense*), SC

[Intermediate Spike-sedge](#), (*Eleocharis intermedia*), T

[Slender Cottongrass](#), (*Eriophorum gracile*), T

[Labrador Bedstraw](#), (*Galium labradoricum*), T

[Barren Strawberry](#), (*Geum fragarioides*), SC

[Woodland Millet](#), (*Milium effusum*), T

[Hill's Pondweed](#), (*Potamogeton hillii*), SC

[Great Laurel](#), (*Rhododendron maximum*), T

[Slender Blue-eyed Grass](#), (*Sisyrinchium mucronatum*), E

Priority Natural Communities

[Black Ash-Red Maple-Tamarack Calcareous Seepage Swamp](#), S2

[Calcareous Seepage Marsh](#), S2

[Calcareous Sloping Fen](#), S2

[Calcareous Rocky Summit/Rock Outcrop Community](#), S2

Other BioMap2 Components

[Forest Core](#)

[Aquatic Core](#)

[Wetland Core](#)





[Landscape Block](#)

[Aquatic Core Buffer](#)

[Wetland Core Buffer](#)

E = Endangered

T = Threatened

SC = Special Concern

S1 = Critically Imperiled communities, typically 5 or fewer documented sites or very few remaining acres in the state.

S2 = Imperiled communities, typically 6-20 sites or few remaining acres in the state.

S3 = Vulnerable communities, typically have 21-100 sites or limited acreage across the state.



**Natural Heritage
& Endangered
Species Program**

Massachusetts Division of Fisheries and Wildlife

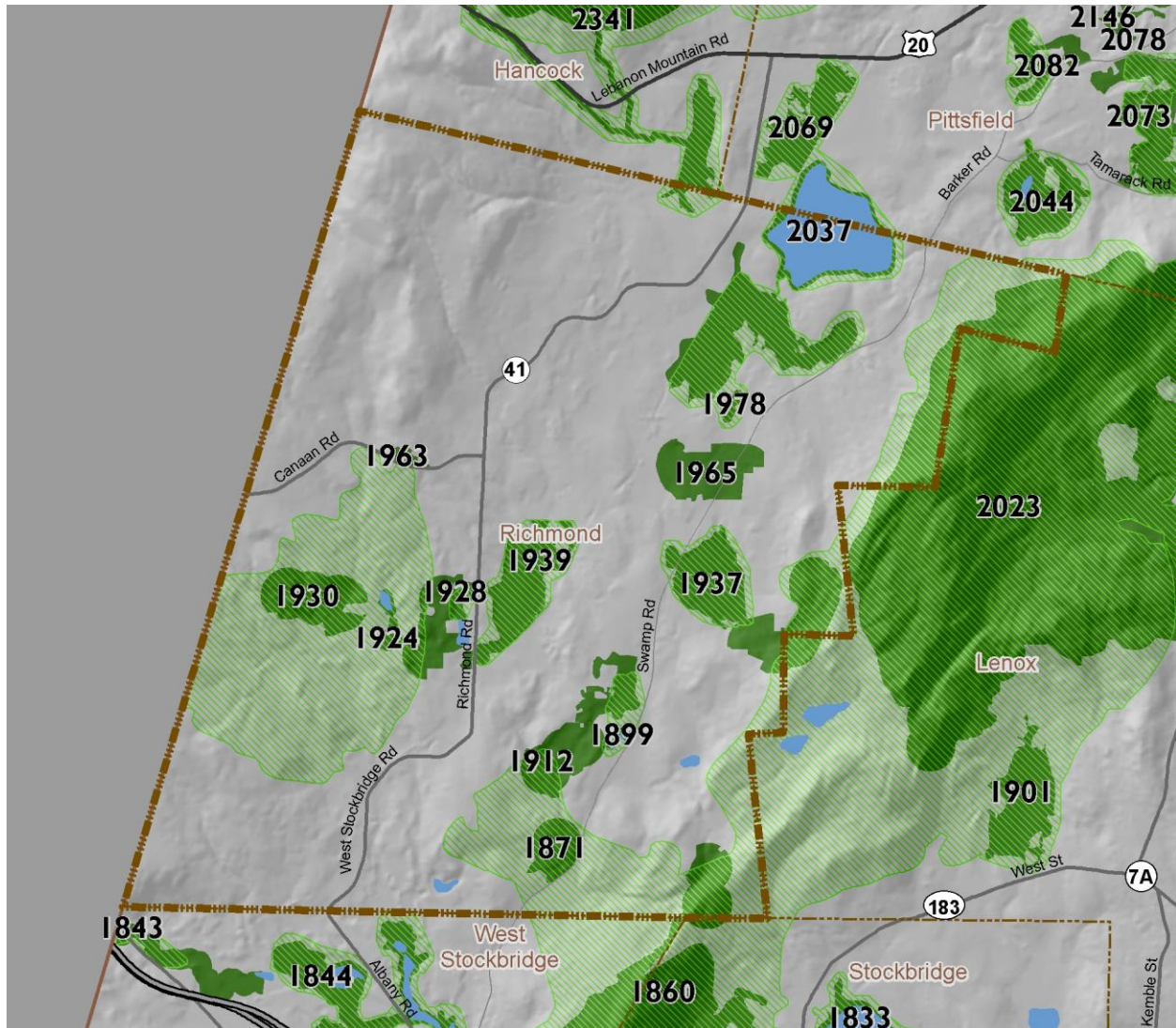
1 Rabbit Hill Road, Westborough, MA 01581

phone: 508-389-6360 fax: 508-389-7890



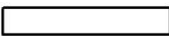
BioMap2 Core Habitat in Richmond

Core IDs correspond with the following element lists and summaries.



-  BioMap2 Core Habitat
-  BioMap2 Critical Natural Landscape

1 Mile



Natural Heritage
& Endangered
Species Program

Massachusetts Division of Fisheries and Wildlife

1 Rabbit Hill Road, Westborough, MA 01581

phone: 508-389-6360 fax: 508-389-7890

For more information on rare species and natural communities, please see our fact sheets online at www.mass.gov/nhesp.

Elements of BioMap2 Cores

This section lists all elements of BioMap2 Cores that fall *entirely or partially* within Richmond. The elements listed here may not occur within the bounds of Richmond.

Core 1860

Forest Core

Wetland Core

Aquatic Core

Species of Conservation Concern

Downy Arrowwood	<i>Viburnum rafinesquianum</i>	E
Hill's Pondweed	<i>Potamogeton hillii</i>	SC
Long-leaved Bluet	<i>Houstonia longifolia</i>	E
Lyre-leaved Rock-cress	<i>Arabidopsis lyrata</i>	E
Smooth Rock-cress	<i>Boechera laevigata</i>	SC
Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	SC
Sora	<i>Porzana carolina</i>	Non-listed SWAP

Core 1871

Species of Conservation Concern

Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	SC
----------------------	---------------------------------	----

Core 1899

Aquatic Core

Species of Conservation Concern

Hill's Pondweed	<i>Potamogeton hillii</i>	SC
-----------------	---------------------------	----

Core 1912

Aquatic Core

Priority & Exemplary Natural Communities

Black Ash-Red Maple-Tamarack Calcareous Seepage Swamp	S2
Calcareous Sloping Fen	S2

Species of Conservation Concern

Barren Strawberry	<i>Geum fragarioides</i>	SC
Fen Sedge	<i>Carex tetanica</i>	SC
Hitchcock's Sedge	<i>Carex hitchcockiana</i>	SC
Labrador Bedstraw	<i>Galium labradoricum</i>	T
Slender Blue-eyed Grass	<i>Sisyrinchium mucronatum</i>	E
Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	SC



**Core 1924**

Wetland Core

Aquatic Core

Species of Conservation Concern

Hill's Pondweed

Potamogeton hillii

SC

Core 1928

Aquatic Core

Species of Conservation Concern

Labrador Bedstraw

Galium labradoricum

T

Jefferson Salamander

Ambystoma jeffersonianum

SC

Core 1930

Species of Conservation Concern

Jefferson Salamander

Ambystoma jeffersonianum

SC

Core 1937

Aquatic Core

Priority & Exemplary Natural Communities

Black Ash-Red Maple-Tamarack Calcareous Seepage Swamp

S2

Calcareous Rocky Summit/Rock Outcrop Community

S2

Calcareous Seepage Marsh

S2

Species of Conservation Concern

Great Laurel

Rhododendron maximum

T

Hemlock Parsley

Conioselinum chinense

SC

Labrador Bedstraw

Galium labradoricum

T

Woodland Millet

Milium effusum

T

Jefferson Salamander

Ambystoma jeffersonianum

SC

Core 1939

Wetland Core

Aquatic Core

Species of Conservation Concern

Fen Sedge

Carex tetanica

SC

Intermediate Spike-sedge

Eleocharis intermedia

T

Slender Cottongrass

Eriophorum gracile

T

American Bittern

Botaurus lentiginosus

E

Sedge Wren

Cistothorus platensis

E

Core 1963

Species of Conservation Concern

Hitchcock's Sedge

Carex hitchcockiana

SC

**Natural Heritage
& Endangered
Species Program****Massachusetts Division of Fisheries and Wildlife**

1 Rabbit Hill Road, Westborough, MA 01581

phone: 508-389-6360 fax: 508-389-7890

**Core 1965**

Species of Conservation Concern

Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	SC
----------------------	---------------------------------	----

Core 1978

Aquatic Core

Species of Conservation Concern

Hill's Pondweed	<i>Potamogeton hillii</i>	SC
-----------------	---------------------------	----

Core 2023

Forest Core

Wetland Core

Aquatic Core

Vernal Pool Core

Priority & Exemplary Natural Communities

Rich, Mesic Forest Community		S3
------------------------------	--	----

Species of Conservation Concern

Adder's-tongue Fern	<i>Ophioglossum pusillum</i>	T
Back's Sedge	<i>Carex backii</i>	E
Bush's Sedge	<i>Carex bushii</i>	E
Chestnut-colored Sedge	<i>Carex castanea</i>	E
Crooked-stem Aster	<i>Symphyotrichum prenanthoides</i>	SC
Dwarf Scouring-rush	<i>Equisetum scirpoides</i>	SC
Fen Sedge	<i>Carex tetanica</i>	SC
Handsome Sedge	<i>Carex formosa</i>	T
Hill's Pondweed	<i>Potamogeton hillii</i>	SC
Hitchcock's Sedge	<i>Carex hitchcockiana</i>	SC
Intermediate Spike-sedge	<i>Eleocharis intermedia</i>	T
Northern Bedstraw	<i>Galium boreale</i>	E
Pale Green Orchis	<i>Platanthera flava</i> var. <i>herbiola</i>	T
Smooth Rock-cress	<i>Boechera laevigata</i>	SC
Early Hairstreak	<i>Erora laeta</i>	T
Mustard White	<i>Pieris oleracea</i>	T
Four-toed Salamander	<i>Hemidactylium scutatum</i>	Non-listed SWAP
Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	SC
Spring Salamander	<i>Gyrinophilus porphyriticus</i>	Non-listed SWAP

Core 2037

Wetland Core

Aquatic Core

Species of Conservation Concern

Creeping Sedge	<i>Carex chordorrhiza</i>	E
----------------	---------------------------	---



**Natural Heritage
& Endangered
Species Program**

Massachusetts Division of Fisheries and Wildlife

1 Rabbit Hill Road, Westborough, MA 01581

phone: 508-389-6360 fax: 508-389-7890



Foxtail Sedge	<i>Carex alopecoidea</i>	T
Slender Cottongrass	<i>Eriophorum gracile</i>	T
Dion Skipper	<i>Euphyes dion</i>	T
Bridle Shiner	<i>Notropis bifrenatus</i>	SC
American Bittern	<i>Botaurus lentiginosus</i>	E
Common Moorhen	<i>Gallinula chloropus</i>	SC
Sora	<i>Porzana carolina</i>	Non-listed SWAP

Core 2341B

Forest Core		
Wetland Core		
Aquatic Core		
Vernal Pool Core		
Priority & Exemplary Natural Communities		
Rich, Mesic Forest Community		S3
Species of Conservation Concern		
Bristly Black Currant	<i>Ribes lacustre</i>	SC
Crooked-stem Aster	<i>Symphotrichum prenanthoides</i>	SC
Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	SC
Spring Salamander	<i>Gyrinophilus porphyriticus</i>	Non-listed SWAP





Core Habitat Summaries

Core 1860

A 1,761-acre Core Habitat featuring Forest Core, Wetland Core, Aquatic Core, and Species of Conservation Concern.

Forest Cores are the best examples of large, intact forests that are least impacted by roads and development. Forest Cores support many bird species sensitive to the impacts of roads and development and help maintain ecological processes found only in unfragmented forest patches.

Though small from a statewide perspective, this 1,106-acre Forest Core is the third largest in the ecoregion. It provides important habitat in the otherwise fragmented Berkshire Valleys ecoregion. This core is partially protected, with additional protection needed to support habitat functions.

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

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

This shrub occurs on open rocky ridgelines, lightly wooded summits, and dry rocky slopes in open northern hardwood stands.

Hill's Pondweed is an herbaceous, submersed, aquatic plant with very slender stems. Hill's Pondweed's habitat is cold, clean, alkaline bodies of water.

Long-leaved Bluet grows in dry, sunny or lightly shaded habitats. Rocky openings with ledges and bedrock exposures are particularly favorable; dry sterile fields, gravel banks, roadsides, quarries and similar human-influenced habitats also provide suitable habitat.

In Massachusetts, Lyre-leaved Rock-cress, a member of the mustard family, inhabits thin soils and crevices of calcareous rocky cliffs, outcrops, and ledges, in full to filtered sun.

In Massachusetts, Smooth Rock-cress, a biennial mustard, inhabits rich, rocky deciduous woods, rich rocky hillsides, ledges, talus slopes, and floodplain thickets and woodlands. It occupies open to shaded sites on dry to mesic soils.

Adult and juvenile Jefferson Salamanders inhabit upland forests during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, whereupon they disperse into upland forest.

Soras are secretive marshbirds that typically nest in dense cattail marshes with interspersed open water.





Core 1871

A 62-acre Core Habitat featuring a Species of Conservation Concern.

Adult and juvenile Jefferson Salamanders inhabit upland forests during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, whereupon they disperse into upland forest.

Core 1899

An 8-acre Core Habitat featuring Aquatic Core and a Species of Conservation Concern.

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

Hill's Pondweed is an herbaceous, submersed, aquatic plant with very slender stems. Hill's Pondweed's habitat is cold, clean, alkaline bodies of water.

Core 1912

A 168-acre Core Habitat featuring Aquatic Core, Priority Natural Communities, and Species of Conservation Concern.

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

Black Ash-Red Maple-Tamarack Calcareous Seepage Swamps are mixed deciduous-coniferous forested swamps occurring in areas where there is calcium-rich groundwater seepage. This nutrient enrichment supports many rare calcium-loving plant species. This small example of a Black Ash-Red Maple-Tamarack Calcareous Seepage Swamp is in good condition and is associated with several state-listed plant species.

Calcareous Sloping Fens are open, sedge-dominated wetlands occurring on slight to moderate slopes where there is calcareous groundwater seepage. They tend to be "hot spots" for uncommon species, often containing multiple state-listed species. This small calcareous sloping fen is in a pipeline cut maintained by mowing the surrounding agriculture field. It has diverse native species and some invasive exotics.

Barren Strawberry is a short herbaceous perennial that occurs on rich soils near streams in a variety of forest types.

In Massachusetts, the Fen Sedge grows primarily in open, wet fens and meadows where there is calcareous groundwater seepage. It also occurs in openings within large calcareous seepage swamps.

Hitchcock's Sedge occurs in rich mesic woods, often in areas overlying calcareous bedrock.

Labrador Bedstraw, a slender perennial herb of the madder family, inhabits calcareous fens, wet meadows, and swamps, often on hummocks or tussocks in full or filtered sunlight.





Slender Blue-eyed Grass, a member of the Iris family, inhabits sunny, calcium-rich wetlands. These include fields, meadows, borders of calcareous fens, and, occasionally, moist roadsides with limey soils.

Adult and juvenile Jefferson Salamanders inhabit upland forests during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, whereupon they disperse into upland forest.

Core 1924

A 21-acre Core Habitat featuring Wetland Core, Aquatic Core, and a Species of Conservation Concern.

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

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

Hill's Pondweed is an herbaceous, submersed, aquatic plant with very slender stems. Hill's Pondweed's habitat is cold, clean, alkaline bodies of water.

Core 1928

A 109-acre Core Habitat featuring Aquatic Core and Species of Conservation Concern.

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

Labrador Bedstraw, a slender perennial herb of the madder family, inhabits calcareous fens, wet meadows, and swamps, often on hummocks or tussocks in full or filtered sunlight.

Adult and juvenile Jefferson Salamanders inhabit upland forests during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, whereupon they disperse into upland forest.

Core 1930

A 127-acre Core Habitat featuring a Species of Conservation Concern.

Adult and juvenile Jefferson Salamanders inhabit upland forests during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, whereupon they disperse into upland forest.





Core 1937

A 300-acre Core Habitat featuring Aquatic Core, Priority Natural Communities, and Species of Conservation Concern.

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

Black Ash-Red Maple-Tamarack Calcareous Seepage Swamps are mixed deciduous-coniferous forested swamps occurring in areas where there is calcium-rich groundwater seepage. This nutrient enrichment supports many rare calcium-loving plant species. This is a large example of a good-quality Black Ash - Red Maple - Tamarack Calcareous Seepage Swamp that is associated with several state-listed plant species.

Calcareous Rocky Summit/Rock Outcrop Communities are sparsely vegetated, dry, open communities, typically found on the ridge tops in the marble regions of Berkshire County. Their open aspect is maintained by trees uprooting and falling. This small calcareous rock outcrop has good diversity and moderate landscape context in association with other priority communities.

Calcareous Seepage Marshes are marshy wetlands enriched by calcareous groundwater seepage. Of the three types of calcareous fen communities described in Massachusetts, they are intermediate in richness and in botanical rarities. This large seepage marsh has good native diversity and some patches of non-native invasive species. It is surrounded by another priority community.

Great Laurel, a member of the Heath family, is an evergreen shrub or small tree that grows up to 10 m high. It is a plant of moist woods, swamps, and the edges of ponds.

In Massachusetts, Hemlock Parsley is usually found in swamps, wet meadows, bogs or fens, and marshy forests. It can tolerate shady environments and wet, acidic soils, although it is usually found in less acidic (circumneutral to limy) wetlands.

Labrador Bedstraw, a slender perennial herb of the madder family, inhabits calcareous fens, wet meadows, and swamps, often on hummocks or tussocks in full or filtered sunlight.

Woodland Millet is typically found on steep slopes in rich, mesic forest communities with calcareous soils. Its microhabitat often includes the drier, rocky upper slopes of the woodland.

Adult and juvenile Jefferson Salamanders inhabit upland forests during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, whereupon they disperse into upland forest.

Core 1939

A 160-acre Core Habitat featuring Wetland Core, Aquatic Core, and Species of Conservation Concern.

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





The 127-acre Wetland Core is among the largest 20% of Wetland Cores statewide and in this ecoregion.

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

In Massachusetts, the Fen Sedge grows primarily in open, wet fens and meadows where there is calcareous groundwater seepage. It also occurs in openings within large calcareous seepage swamps.

In Massachusetts, Intermediate Spike-sedge, a small, densely tufted annual, is found on muddy, alkaline river banks and pond shores, usually during periods of low water when mud is exposed.

Slender Cottongrass is a plant of swamps and peatlands. Habitats in Massachusetts include acidic and calcareous fens and portions of seepage swamps.

American Bitterns are heron-like birds that nest primarily in large cattail, tussock or shrub marshes and are very sensitive to disturbance.

Sedge Wrens nest in large wet meadows. They are sensitive to changes in hydrology and seral succession.

Core 1963

An 11-acre Core Habitat featuring a Species of Conservation Concern.

Hitchcock's Sedge occurs in rich mesic woods, often in areas overlying calcareous bedrock.

Core 1965

A 125-acre Core Habitat featuring a Species of Conservation Concern.

Adult and juvenile Jefferson Salamanders inhabit upland forests during most of the year, where they reside in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, whereupon they disperse into upland forest.

Core 1978

An 8-acre Core Habitat featuring Aquatic Core and a Species of Conservation Concern.

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

Hill's Pondweed is an herbaceous, submersed, aquatic plant with very slender stems. Hill's Pondweed's habitat is cold, clean, alkaline bodies of water.

Core 2023

A 3,414-acre Core Habitat featuring Forest Core, Wetland Core, Aquatic Core, Vernal Pool Core, Priority Natural Communities, and Species of Conservation Concern.

The Core Habitat of Lenox Mountain and Yokun Brook is home to 20 rare and uncommon species of plants and animals. A Forest Core covers much of Lenox Mountain itself. One of the state's best populations of Jefferson Salamanders is found in the lowlands and lower slopes of the mountain, along





Yokun Brook. The rich bedrock here, especially along Yokun Brook and near Mahanna Cobble, supports four Endangered plants, as well as eleven other rare plants.

Rich, Mesic Forests are a variant of northern hardwood forests, dominated by sugar maple with a diverse herbaceous layer that includes many spring wild flowers, in a moist, nutrient-rich environment. This Core has two examples of Rich, Mesic Forest including one that is of moderate size, but in very good condition, with topographical diversity - rock outcrops, gullies, and the like - that provides a rich array of microhabitats for various unusual plant species.

Forest Cores are the best examples of large, intact forests that are least impacted by roads and development. Forest Cores support many bird species sensitive to the impacts of roads and development and help maintain ecological processes found only in unfragmented forest patches.

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

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

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

Core 2037

A 525-acre Core Habitat featuring Wetland Core, Aquatic Core, and Species of Conservation Concern.

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

The 176-acre Wetland Core is among the largest 20% of Wetland Cores statewide and in this ecoregion.

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

Creeping Sedge is a perennial, herbaceous, grass-like plant of sphagnum bogs and fens, usually in areas over calcareous bedrock. It is named for its unusual prostrate, creeping growth pattern, where decumbent stems from the previous year send up new shoots from the nodes.

Foxtail Sedge is a perennial, herbaceous, grass-like plant found in calcareous wet meadows of river floodplains.

Slender Cottongrass is a plant of swamps and peatlands. Habitats in Massachusetts include acidic and calcareous fens and portions of seepage swamps.





Dion Skipper Butterflies inhabit sedge wetlands. Adults nectar in nearby upland fields.

Bridle Shiners are small (<5 cm) minnows that are found in clear water in slack areas of streams and rivers and are also found in lakes and ponds.

American Bitterns are heron-like birds that nest primarily in large cattail, tussock or shrub marshes and are very sensitive to disturbance.

Common Moorhens are fowl-like marshbirds that typically nest in dense cattail beds adjacent to open water.

Soras are secretive marshbirds that typically nest in dense cattail marshes with interspersed open water.

Core 2341B

A 10,352-acre section of a larger 11,593-acre Core Habitat featuring Forest Core, Wetland Core, Aquatic Core, Vernal Pool Core, Priority Natural Communities, and Species of Conservation Concern.

Much of the Town of Hancock and of Pittsfield State Forest is in a large Forest Core that stretches north-south along the Taconic Range here. Although this part of a Core Habitat is not a rare species hotspot, it does support three rare species, including several good populations of Jefferson Salamander.

Rich, Mesic Forests are a variant of northern hardwood forests, dominated by sugar maple with a diverse herbaceous layer that includes many spring wild flowers, in a moist, nutrient-rich environment. This patch of Rich, Mesic Forest is surrounded by a large area of northern hardwood forest. There are scattered invasive species throughout this working forest.

Forest Cores are the best examples of large, intact forests that are least impacted by roads and development. Forest Cores support many bird species sensitive to the impacts of roads and development and help maintain ecological processes found only in unfragmented forest patches.

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

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

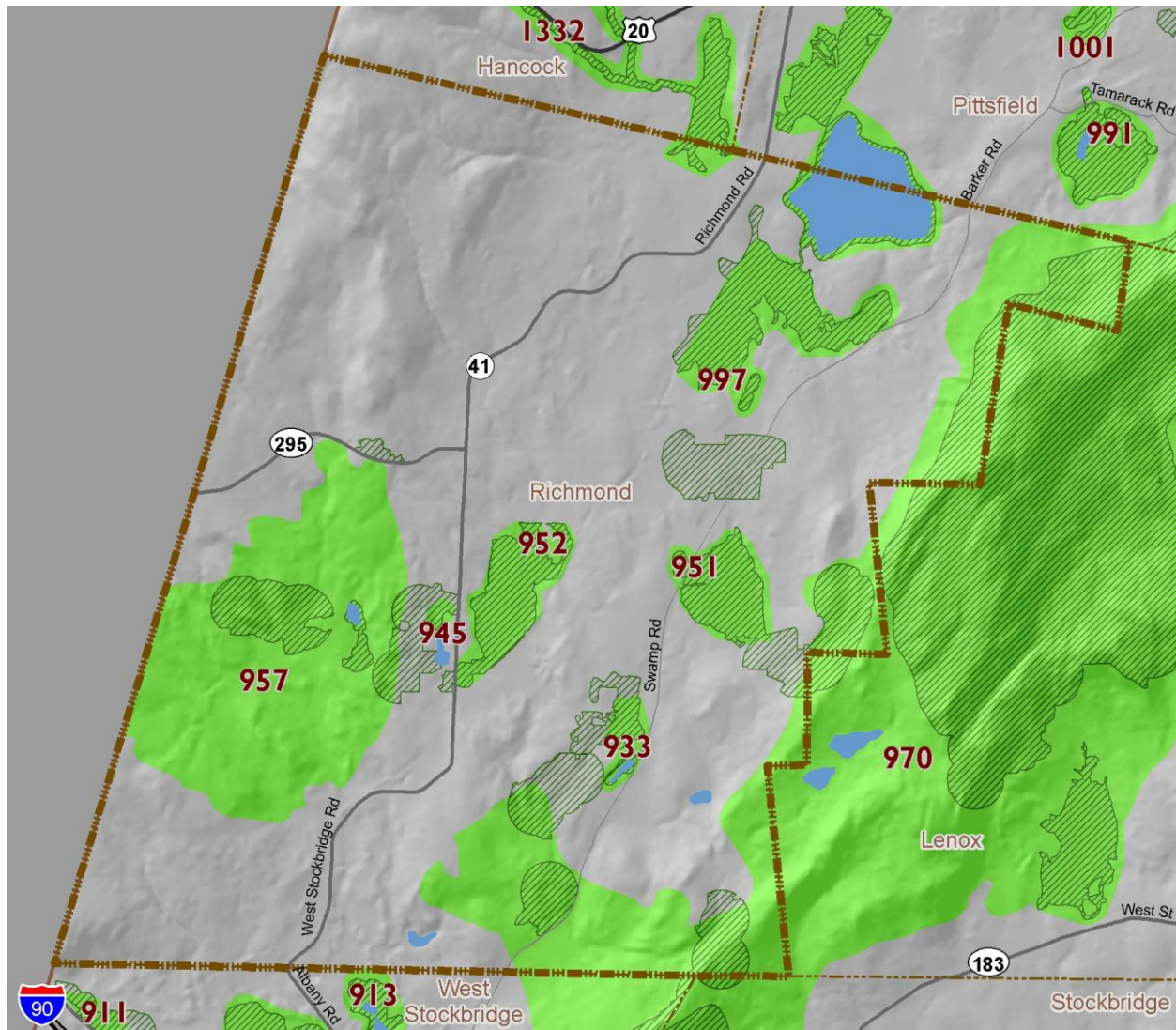
Vernal pools are small, seasonal wetlands that provide important wildlife habitat, especially for amphibians and invertebrate animals that use them to breed. *BioMap2* identifies the top 5 percent most interconnected clusters of Potential Vernal Pools in the state.





BioMap2 Critical Natural Landscape in Richmond

Critical Natural Landscape IDs correspond with the following element lists and summaries.



BioMap2 Core Habitat



BioMap2 Critical Natural Landscape

1 Mile



Natural Heritage
& Endangered
Species Program

Massachusetts Division of Fisheries and Wildlife

1 Rabbit Hill Road, Westborough, MA 01581

phone: 508-389-6360 fax: 508-389-7890

For more information on rare species and natural communities, please see our fact sheets online at www.mass.gov/nhesp.



Elements of BioMap2 Critical Natural Landscapes

This section lists all elements of BioMap2 Critical Natural Landscapes that fall *entirely or partially* within Richmond. The elements listed here may not occur within the bounds of Richmond.

CNL 913

Aquatic Core Buffer

CNL 933

Aquatic Core Buffer

Wetland Core Buffer

CNL 945

Aquatic Core Buffer

CNL 951

Aquatic Core Buffer

Wetland Core Buffer

CNL 952

Aquatic Core Buffer

Wetland Core Buffer

CNL 957

Aquatic Core Buffer

Landscape Block

Wetland Core Buffer

CNL 970

Aquatic Core Buffer

Landscape Block

Wetland Core Buffer

CNL 997

Aquatic Core Buffer

Wetland Core Buffer

CNL 1332

Aquatic Core Buffer

Landscape Block

Wetland Core Buffer





Critical Natural Landscape Summaries

CNL 913

A 377-acre Critical Natural Landscape featuring Aquatic Core Buffer.

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

CNL 933

A 61-acre Critical Natural Landscape featuring Aquatic Core Buffer and Wetland Core Buffer.

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

CNL 945

A 16-acre Critical Natural Landscape featuring Aquatic Core Buffer.

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

CNL 951

A 171-acre Critical Natural Landscape featuring Aquatic Core Buffer and Wetland Core Buffer.

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





CNL 952

A 203-acre Critical Natural Landscape featuring Aquatic Core Buffer and Wetland Core Buffer.

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

CNL 957

A 1,348-acre Critical Natural Landscape featuring Aquatic Core Buffer, Wetland Core Buffer and Landscape Block.

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

Landscape Blocks, the primary component of Critical Natural Landscapes, are large areas of intact predominately natural vegetation, consisting of contiguous forests, wetlands, rivers, lakes, and ponds, as well as coastal habitats such as barrier beaches and salt marshes. Pastures and power-line rights-of-way, which are less intensively altered than most developed areas, were also included since they provide habitat and connectivity for many species. Collectively, these natural cover types total 3.6 million acres across the state. An Ecological Integrity assessment was used to identify the most intact and least fragmented areas. These large Landscape Blocks are most likely to maintain dynamic ecological processes such as buffering, connectivity, natural disturbance, and hydrological regimes, all of which help to support wide-ranging wildlife species and many other elements of biodiversity.

In order to identify critical Landscape Blocks in each ecoregion, different Ecological Integrity thresholds were used to select the largest intact landscape patches in each ecoregion while avoiding altered habitat as much as possible. This ecoregional representation accomplishes a key goal of *BioMap2* to protect the ecological stages that support a broad suite of biodiversity in the context of climate change. Blocks were defined by major roads, and minimum size thresholds differed among ecoregions to ensure that *BioMap2* includes the best of the best in each ecoregion.

CNL 970

An 8,426-acre Critical Natural Landscape featuring Aquatic Core Buffer, Wetland Core Buffer and Landscape Block.

A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each





wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

Landscape Blocks, the primary component of Critical Natural Landscapes, are large areas of intact predominately natural vegetation, consisting of contiguous forests, wetlands, rivers, lakes, and ponds, as well as coastal habitats such as barrier beaches and salt marshes. Pastures and power-line rights-of-way, which are less intensively altered than most developed areas, were also included since they provide habitat and connectivity for many species. Collectively, these natural cover types total 3.6 million acres across the state. An Ecological Integrity assessment was used to identify the most intact and least fragmented areas. These large Landscape Blocks are most likely to maintain dynamic ecological processes such as buffering, connectivity, natural disturbance, and hydrological regimes, all of which help to support wide-ranging wildlife species and many other elements of biodiversity.

In order to identify critical Landscape Blocks in each ecoregion, different Ecological Integrity thresholds were used to select the largest intact landscape patches in each ecoregion while avoiding altered habitat as much as possible. This ecoregional representation accomplishes a key goal of *BioMap2* to protect the ecological stages that support a broad suite of biodiversity in the context of climate change. Blocks were defined by major roads, and minimum size thresholds differed among ecoregions to ensure that *BioMap2* includes the best of the best in each ecoregion.

At 8,079 acres, this is one of a few Landscape Blocks, and the fourth largest Block, in the Berkshire Valleys ecoregion, especially important in an otherwise more fragmented ecoregion. This Block is partially protected.

CNL 997

An 829-acre Critical Natural Landscape featuring Aquatic Core Buffer and Wetland Core Buffer.

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

CNL 1332

An 84,791-acre Critical Natural Landscape featuring Aquatic Core Buffer, Wetland Core Buffer and Landscape Block.

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





Landscape Blocks, the primary component of Critical Natural Landscapes, are large areas of intact predominately natural vegetation, consisting of contiguous forests, wetlands, rivers, lakes, and ponds, as well as coastal habitats such as barrier beaches and salt marshes. Pastures and power-line rights-of-way, which are less intensively altered than most developed areas, were also included since they provide habitat and connectivity for many species. Collectively, these natural cover types total 3.6 million acres across the state. An Ecological Integrity assessment was used to identify the most intact and least fragmented areas. These large Landscape Blocks are most likely to maintain dynamic ecological processes such as buffering, connectivity, natural disturbance, and hydrological regimes, all of which help to support wide-ranging wildlife species and many other elements of biodiversity.

In order to identify critical Landscape Blocks in each ecoregion, different Ecological Integrity thresholds were used to select the largest intact landscape patches in each ecoregion while avoiding altered habitat as much as possible. This ecoregional representation accomplishes a key goal of *BioMap2* to protect the ecological stages that support a broad suite of biodiversity in the context of climate change. Blocks were defined by major roads, and minimum size thresholds differed among ecoregions to ensure that *BioMap2* includes the best of the best in each ecoregion.



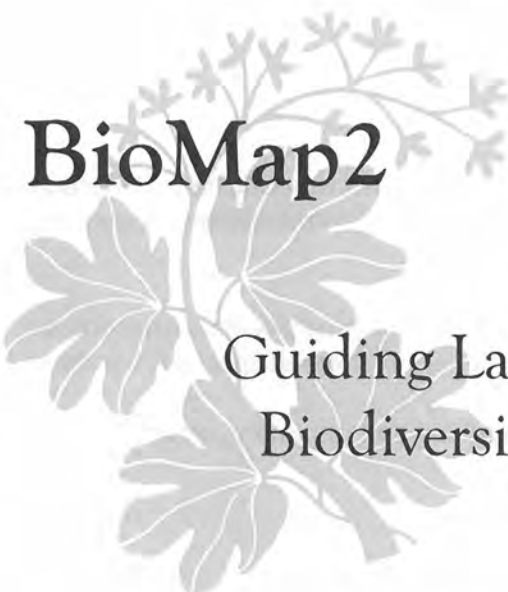
Help Save Endangered Wildlife!

Please contribute on your Massachusetts income tax form or directly to the



Natural Heritage &
Endangered Species Fund

To learn more about the Natural Heritage & Endangered Species Program and the Commonwealth's rare species, visit our web site at www.mass.gov/nhesp.



BioMap2

Guiding Land Conservation for Biodiversity in Massachusetts

Richmond

This report and associated maps provide information about important sites for biodiversity conservation in your area.

This information is intended for conservation planning, and is not intended for use in state regulations.

Produced by:
Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries and Wildlife

Commonwealth of Massachusetts

Produced in 2011



BioMap2:

Guiding Land Conservation for Biodiversity in Massachusetts

Preferred citation:

NHESP. 2011. BioMap2, Guiding Land Conservation for Biodiversity in Massachusetts: Richmond. Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries and Wildlife. Westborough, MA.

The preferred citation for BioMap2 is:

Woolsey, H., A. Finton, J. DeNormandie. 2010. BioMap2: Conserving the Biodiversity of Massachusetts in a Changing World. MA Department of Fish and Game/Natural Heritage & Endangered Species Program and The Nature Conservancy/Massachusetts Program.

http://www.mass.gov/dfwele/dfw/nhesp/land_protection/biomap/biomap2_summary_report.pdf

Funding for this project was made available by the Massachusetts Sub-Council of the Housatonic River Trustee Council under the auspices of the Massachusetts and Department of the Interior (DOI) Natural Resource Damages Assessment and Restoration Programs and contributions to the Natural Heritage & Endangered Species Fund.



**Natural Heritage
& Endangered Species
Program**

Massachusetts Division of Fisheries and Wildlife

1 Rabbit Hill, Westborough, MA 01581

Tel: (508) 389-6360 Fax: (508) 389-7891

<http://www.nhesp.org>



For more information on rare species and natural communities, please see our fact sheets online at www.nhesp.org

BioMap2: Guiding Land Conservation for Biodiversity in Massachusetts

Richmond

Richmond is located in north-central Berkshire County, just southwest of Pittsfield. Most of the town falls within the Housatonic River watershed, though a small portion in the far northwest corner drains to the Hudson River in New York. The primary waterways are Furnace Brook, Cone Brook, and Lenox Mountain Brook; these three tributary streams meet just south of town in West Stockbridge to form the Williams River, which eventually joins the Housatonic mainstem in Great Barrington. Richmond lies within both the Western New England Marble Valleys and Taconic Mountains ecoregions (see Figure 1). The mountains of the Taconic Range in western Richmond form the town's boundary with Canaan, New York, while the jagged boundary with Lenox lies along another mountainous ridge to the east called Lenox Mountain. These hills contain some of the highest elevations in the region, including Perry Peak, which rises to 2,070 feet, and Yokun Seat, which tops out at 2,194 feet. A number of wetlands lie in the lowlands of the town's central valley, and Richmond Pond lies to the north along the town's boundary with Pittsfield.

Richmond is primarily rural in character, with approximately 1,600 residents. Development is mostly restricted to residential areas and a small amount of agriculture, primarily in the lowlands. Route 41, Swamp Road, and the CSX rail line all traverse the town from north to south, along with a network of parallel and connecting roads that criss-cross the valley. This relatively light amount of development has allowed for the preservation of many of Richmond's natural ecosystems. Consequently, much of the town's native biodiversity, including state-listed species and natural communities, continue to thrive. These natural heritage features are often closely tied to the town's forested areas, streams, floodplains and wetlands.

The lowlands of Richmond, where small tributaries flow south toward the Housatonic River mainstem in Great Barrington, are part of the Western New England Marble Valleys ecological region and are highly regarded for their native biodiversity. This is one of the most distinct and biologically rich ecoregions both in Massa-

chusetts and throughout New England, stretching from northwest Connecticut up through sections of the Hudson River and Lake Champlain watersheds. The marble valleys support an impressively high percentage of Massachusetts' state-listed species and natural communities, some of which are restricted to the ecoregion while others



Richmond at a Glance

- Total area: 12,180 acres or 19.0 square miles
- Human Population in 2009: 1,570 people
- Open space protected in perpetuity: 980 acres, or 8.0% of the town's total area*

BioMap2 Components

Core Habitat

- 9 Aquatic Cores: 715 acres
- 1 Forest Core: 232 acres
- 3 Wetland Cores: 316 acres
- 4 Priority Natural Communities: 96 acres

Species of Conservation Concern**

- 1 insect, 1 fish, 1 amphibian, 4 birds, 14 plants

Critical Natural Landscape

- 8 Upland Buffers of Aquatic Cores: 1,007 acres
- 7 Upland Buffers of Wetland Cores: 607 acres
- 2 Landscape Blocks: 2,733 acres

*calculated using MassGIS data layer "Protected and Recreational Open Space—November 2010"

**see next page for complete list of species, natural communities, and other biodiversity elements

Species of Conservation Concern, Priority and Exemplary Natural Communities, and Other Elements of Biodiversity in Richmond

Insects

Butterflies

Dion Skipper (*Euphyes dion*), Threatened

Fish

Bridle Shiner (*Notropis bifrenatus*), Special Concern

Amphibians

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern

Birds

American Bittern (*Botaurus lentiginosus*), Endangered

Common Moorhen (*Gallinula chloropus*), Special Concern

Sedge Wren (*Cistothorus platensis*), Endangered

Sora (*Porzana carolina*), SWAP

Plants

Barren Strawberry (*Waldsteinia fragarioides*), Special Concern

Creeping Sedge (*Carex chordorrhiza*), Endangered

Fen Sedge (*Carex tetanica*), Special Concern

Foxtail Sedge (*Carex alopecoidea*), Threatened

Great Laurel (*Rhododendron maximum*), Threatened

Hemlock Parsley (*Conioselinum chinense*), Special Concern

Hill's Pondweed (*Potamogeton hillii*), Special Concern

Hitchcock's Sedge (*Carex hitchcockiana*), Special Concern

Intermediate Spike-sedge (*Eleocharis intermedia*), Threatened

Labrador Bedstraw (*Galium labradoricum*), Threatened

Lyre-leaved Rock-cress (*Arabidopsis lyrata*), Endangered

Slender Blue-eyed Grass (*Sisyrinchium mucronatum*), Endangered

Slender Cottongrass (*Eriophorum gracile*), Threatened

Woodland Millet (*Milium effusum*), Threatened

Priority Natural Communities

Black Ash – Red Maple – Tamarack Calcareous Seepage Swamp (Imperiled)

Calcareous Rocky Summit/Rock Outcrop Community (Imperiled)

Calcareous Seepage Marsh (Imperiled)

Calcareous Sloping Fen (Imperiled)

Other BioMap2 Components

Aquatic Cores

Forest Cores

Landscape Blocks

Upland Buffers of Aquatic Cores

Upland Buffers of Wetland Cores

Wetland Cores

are more widespread. In Richmond, habitats like marshlands, swamps, and seeps along Cone Brook and its tributaries Sleepy Hollow Brook and Fairfield Brook provide habitat for state-listed plants such as Fen Sedge, Labrador Bedstraw, and Hill's Pondweed as well as state-listed wildlife species like Sedge Wren and Jefferson Salamander. Open water and wetlands near Richmond Pond support uncommon species such as Slender Cottongrass, Dion Skipper, and Bridle Shiner. Several Priority Natural Community types also occur here, including Black Ash – Red Maple – Tamarack Calcareous Seepage Swamp and Calcareous Sloping Fen.

The Taconic Mountains ecological region is an area of higher elevations and steep topography with underlying metamorphic bedrock, a colder climate, and more acidic soils than the marble valleys below to the east. Jefferson Salamanders are found in many upland locations throughout Richmond, usually near vernal pools. The Spring Salamander also occurs, typically seeking cover under rocks at high elevations along steep headwater streams. Interspersed throughout the higher elevations are calcareous rocky outcrop communities, sometimes with state-listed species such as Lyre-leaved Rock-cress.

BIODIVERSITY CONSERVATION TARGETS IN RICHMOND: CORE HABITAT, CRITICAL NATURAL LANDSCAPE, & PRIORITY CONSERVATION AREAS

Overview

In this section, we outline areas in Richmond that warrant special focus of conservation efforts locally, regionally, and throughout the state. Components of the Natural Heritage & Endangered Species Program's (NHESP's) state-wide BioMap2 project, which incorporates NHESP data and includes findings of studies funded by the Natural Resource Damages Assessment and Restoration Program (NRD) conducted in 2008 and 2009 as part of its Core Habitat and Critical Natural Landscape, were used to delineate and map these areas. The areas range in size from fewer than 10 acres to several thousand acres. Areas of Core Habitat, each called a BioMap2 Core (BC), and areas of Critical Natural Landscape (CNL), along with their associated components, are illustrated in Figure 2 and outlined in detail below. Only BioMap2 components that occur in Richmond are described in here, though a given area of Core Habitat or CNL listed may extend outside the town boundaries and contain additional components.

Biodiversity Studies in Massachusetts and the Housatonic River Watershed

BioMap2 is a statewide biodiversity conservation plan produced in 2010 by MassWildlife's Natural Heritage & Endangered Species Program and The Nature Conservancy. It is designed to guide strategic biodiversity conservation in Massachusetts over the next decade by focusing land protection and stewardship on the areas that are most critical for ensuring the long-term persistence of state-listed and other native species and their habitats, Priority Natural Communities, and a diversity of ecosystems. BioMap2 is also designed to include the habitats and Species of Conservation Concern identified in the State Wildlife Action Plan (SWAP).

BioMap2 identifies two complementary spatial layers, Core Habitat and Critical Natural Landscape. Core Habitat identifies key areas that are critical for the long-term persistence of rare species and other Species of Conservation Concern, as well as a wide diversity of natural communities and intact ecosystems across the Commonwealth. Protection of Core Habitats will contribute to the conservation of specific elements of biodiversity. Critical Natural Landscape identifies large Landscape Blocks that are minimally impacted by development. If protected, these areas will provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience to natural and anthropogenic disturbances in a rapidly changing world. Areas delineated as Critical Natural Landscape also include buffering upland around wetland, coastal, and aquatic Core Habitats to help ensure their long-term integrity.

In 2008 and 2009, field surveys were carried out to improve knowledge of the region's biodiversity resources in towns in the Housatonic River watershed in western Massachusetts. During these surveys, coordinated by the Natural Heritage and Endangered Species Program (NHESP) with funds from the Natural Resources Damage Assessment and Restoration (NRD) Program, researchers collected important information about state-listed species and Priority Natural Communities of 19 towns in the region. Surveys were conducted by NHESP staff, expert consultants, academic researchers, and graduate students. Information on the surveys' findings was added to the NHESP database, combined with other NHESP data, and incorporated into Core Habitat of BioMap2. BioMap2 data layers, complete with these data and other information, are now available for use in conservation planning at the town, regional, and state levels.

To facilitate land protection and stewardship, NHESP further prioritized areas in each of the towns in the watershed using habitat size, habitat conditions, and other biodiversity indicators. Priority Conservation Areas (PCAs) were considered to be of high biodiversity value if they contained concentrations of state-listed species or Priority Natural Communities, or large areas of intact habitat. In each town, a total of one to six Town PCAs were selected. Each Town PCA contains part of at least one BioMap2 Core. In Richmond, four Town PCAs were designated; Figure 3 illustrates how BioMap2 Core Habitat and Critical Natural Landscape relate to their distribution.

A larger scale prioritization was also conducted to select Regional PCAs of the highest conservation and stewardship value among all towns in Massachusetts' portion of the Housatonic River watershed. Regional PCAs often cross town boundaries and can be quite large, ranging from 373 acres to more than 25,000 acres. Ecological connectivity within these Regional PCAs is important, and these large units often include select Town PCAs of particular ecological value to both the town and the region. In this way, biodiversity can be conserved at two scales: locally within each town and within a broader regional context. Regional PCA 6 (also in Pittsfield, Lenox,

Stockbridge and West Stockbridge) includes an area in eastern Richmond that is coincident with Town PCA 1.

Core Habitat and Critical Natural Landscape Components in Richmond

Areas of Core Habitat in Richmond, called BioMap2 Cores (BCs), are summarized here. Also described are the various components of each BC, which may include Species of Conservation Concern, Exemplary and Priority Natural Communities, or Aquatic, Forest, Vernal Pool, or Wetland Cores. Components of Critical Natural Landscape (CNL) associated with each BC are also listed. These components include Upland Buffers of both Aquatic and Wetland Cores, as well as Landscape Blocks.

BC1963 and BC1965 (no CNL)

These BCs provide habitat for one uncommon plant and one uncommon salamander.

Hitchcock's Sedge (*Carex hitchcockiana*), Special Concern: This perennial woodland sedge occurs in Rich, Mesic Forests on, or at the base of, slopes.

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: This salamander species inhabits upland for-

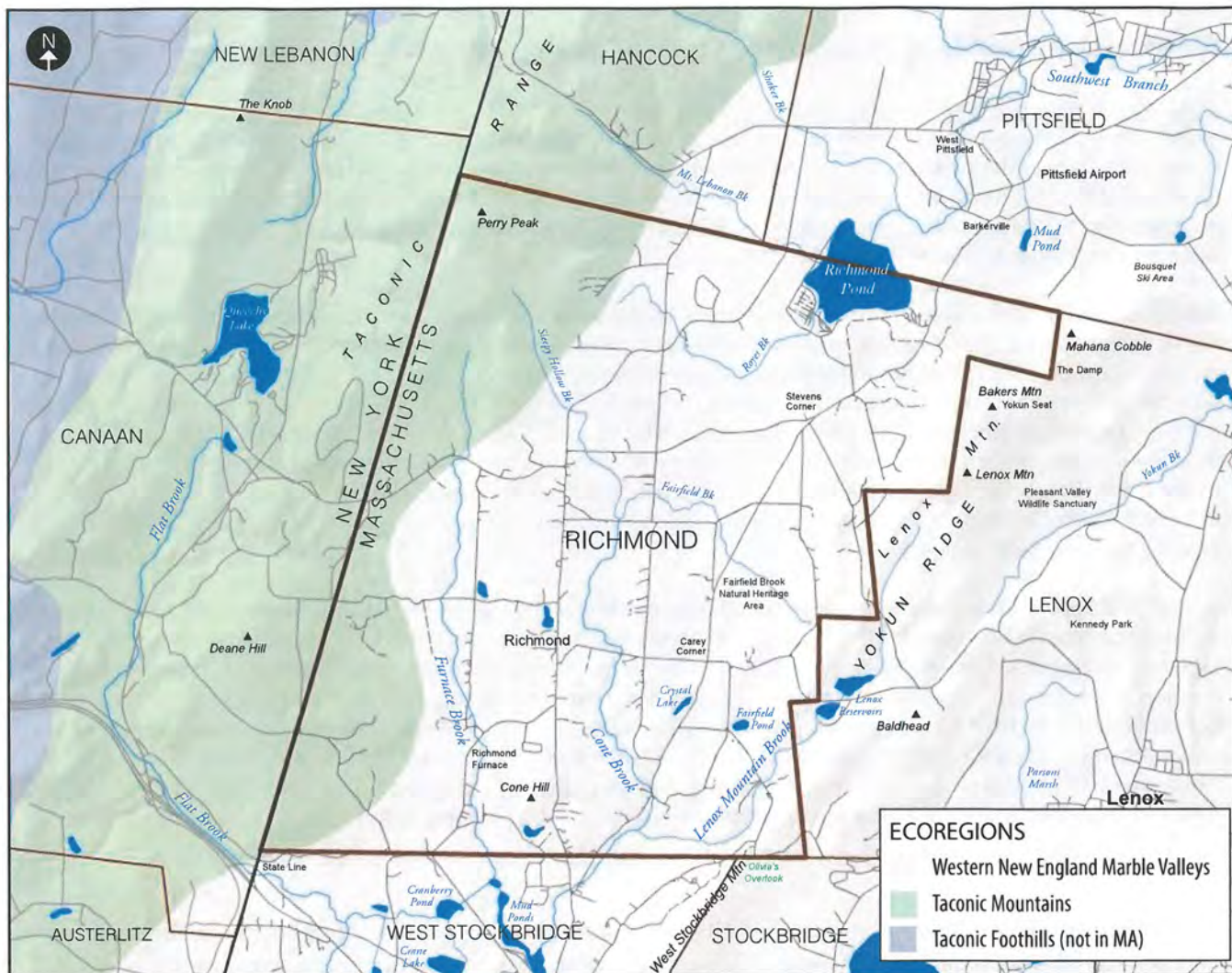


Figure 1. Richmond is part of the Western New England Marble Valleys and Taconic Mountains ecoregions.

est during most of the year, where it resides in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, and disperse into upland forest.

BC1860 and CNL970

BC1860 is located in southeastern Richmond; most of it is embedded in a Landscape Block of CNL970. It includes one state-listed plant species and one state-listed salamander species:

Lyre-leaved Rock-cress (*Arabidopsis lyrata*), Endangered: This is a small, herbaceous perennial that inhabits thin soils and crevices of calcareous rocky cliffs, outcrops, and ledges, and is found in full to filtered sun.

Jefferson Salamander (*Ambystoma jeffersonianum*), Special

Concern: This salamander species inhabits upland forest during most of the year, where it resides in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, and disperse into upland forest.

BC1871 and CNL970

BC1871 is a small core embedded in a Landscape Block of CNL970 in southern Richmond. It supports one state-listed salamander species:

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: This salamander species inhabits upland forest during most of the year, where it resides in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in

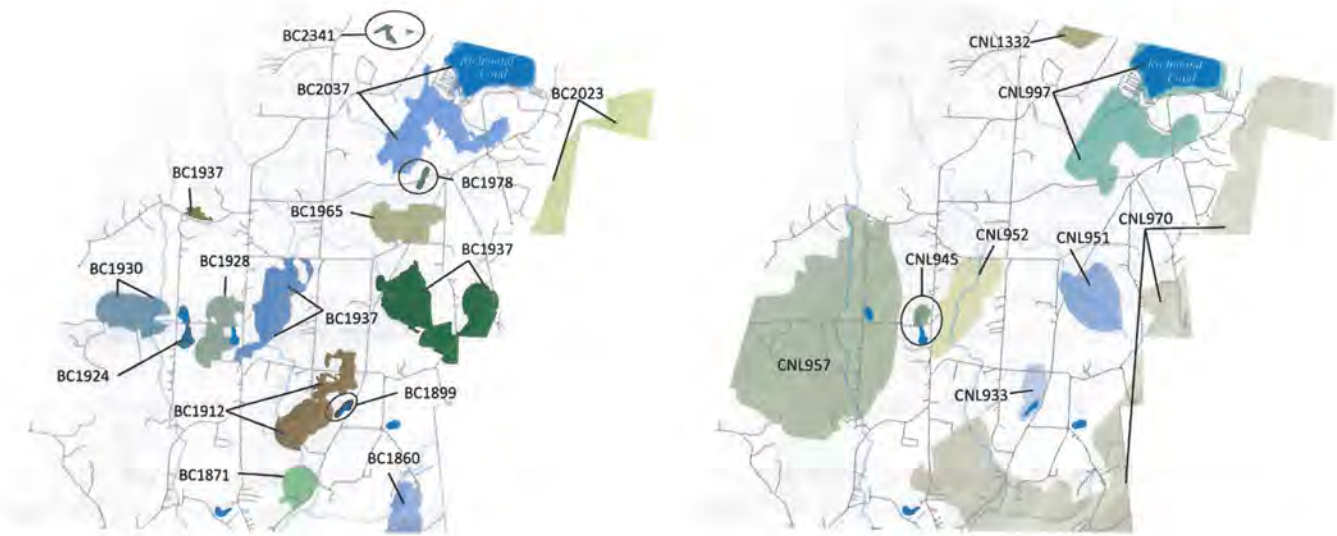


Figure 2. Richmond includes a total of 15 BioMap2 Cores (BCs; left) and eight areas of Critical Natural Landscape (CNL; right). Overlap between these two layers is shown in Figure 3.

vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, and disperse into upland forest.

BC1899 and CNL933

BC1899 is a small core made up of an Aquatic Core that includes Crystal Lake and is surrounded by an Upland Buffer and is within the Landscape Block of CNL933. It lies in southeast Richmond along Swamp Road. It is also near but not part of the larger CNL970 to the southeast. It includes one state-listed plant species.

BC1912, CNL933 and CNL970

BC1912 includes an Aquatic Core along a tributary to Cone Brook in the vicinity of Dublin Road, and is partly surrounded by an Upland Buffer of CNL933 and partly within a Landscape Block of CNL970. It includes several state-listed species and Priority Natural Communities:

Plants

Fen Sedge (*Carex tetanica*), Special Concern: This plant is a narrow-leaved perennial sedge that grows in open calcareous fens.

Hitchcock's Sedge (*Carex hitchcockiana*), Special Concern: This plant is a perennial woodland sedge that occurs in Rich, Mesic Forests on, or at the base of, slopes.

Labrador Bedstraw (*Galium labradoricum*), Threatened: This plant is a perennial herb of open to semi-open alkaline fens, wet meadows, or swamps. It often grows on hummocks or tussocks in full or filtered sunlight.

Barren Strawberry (*Waldsteinia fragarioides*) Special Concern: This plant is a short, herbaceous perennial that occurs on rich soils near streams in a variety of forest types.

Amphibians

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: This salamander species inhabit upland forest during most of the year, where it resides in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, and disperse into upland forest.

Priority Natural Communities

Black Ash – Red Maple – Tamarack Calcareous Seepage Swamp (Imperiled): This Priority Natural Community is a mixed deciduous-coniferous forested swamp that occurs in areas with calcium-rich groundwater seepage. Its nutrient enrichment supports many uncommon, calcium-loving plant species. The small example in BC1912 is in good condition and supports several state-listed plant species.

Calcareous Sloping Fen (Imperiled): This Priority Natural Community is an open, sedge-dominated wetland that occurs on slight to moderate slopes with calcareous groundwater seepage. It is a rare species “hot spot” and has many associated state-listed plant and animal species. This small Calcareous Sloping Fen is in a pipeline cut maintained by mowing of the surrounding agricultural field. It has a diverse suite of native species, and also contains some invasive exotics.

BC1924 and CNL957

BC1924 is a 21-acre BC located near the intersection of Rossiter and West Roads. It includes an Aquatic and Wetland Core that are both surrounded by Upland Buffers and within a Landscape Block of CNL957. It also supports one state-listed aquatic plant species.

BC1928, CNL957, and CNL945

BC1928 is located in central Richmond in an area along Route 41 that is bisected by a few roads. It includes areas of forests, wetlands, and fields that are part of an Aquatic Core. BC1928 lies partly within a Landscape Block of CNL957 and is surrounded by an Upland Buffer of CNL945. It also supports two state-listed species:

Labrador Bedstraw (*Galium labradoricum*), Threatened: This plant is a perennial herb of open to semi-open alkaline fens, wet meadows, or swamps. It often grows on hummocks or tussocks in full or filtered sunlight.

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: This salamander species inhabits upland forest during most of the year, where it resides in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, and disperse into upland forest.

BC1930 and CNL957

BC1930 is located in western Richmond in an area of fields, wetlands, and mixed deciduous and evergreen forests in Landscape Block of CNL957. Roads passing through BC1930 are bordered by some development; nonetheless, this BC contains important habitat for breeding salamanders, as Certified Vernal Pools occur within it and in nearby areas. One state-listed salamander species is documented in BC1930.

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: This salamander species inhabits upland forest during most of the year, where it resides in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, and disperse into upland forest.

BC1937 and CNL 951

BC1937 includes much of the MA Division of Fish and Wildlife's Fairfield Brook Natural Heritage Area in eastern Richmond. It consists of an Aquatic Core and supports several state-listed species and Priority Natural Commu-

nities. BC1937 is surrounded by an Upland Buffer of CNL951.

Plants

Great Laurel (*Rhododendron maximum*), Threatened: This plant is a tall, broad-leaved evergreen shrub that grows in the understory of swampy, acidic woodlands.

Hemlock Parsley (*Conioselinum chinense*), Special Concern: Hemlock Parsley is a perennial herbaceous plant of forested swamps that have sparse canopy cover. It generally grows in enriched soils overlying calcareous bedrock.

Labrador Bedstraw (*Galium labradoricum*), Threatened: This plant is a perennial herb of open to semi-open alkaline fens, wet meadows, or swamps. It often grows on hummocks or tussocks in full or filtered sunlight.

Woodland Millet (*Milium effusum*), Threatened: This tall, conspicuous grass grows in wooded habitats on mesic, calcareous slopes. It has a slender and somewhat succulent stem, which is notable for its delicate pastel green color and whitish bloom. It often co-occurs with beech, sugar maple, broad-leaf goldenrod, and sedge species. In Massachusetts, it is most often found in the northwest part of the state.

Amphibians

Jefferson Salamander (*Ambystoma jeffersonianum*), Special Concern: This salamander species inhabits upland forest during most of the year, where it resides in small-mammal burrows and other subsurface retreats. Adults migrate during late winter or early spring to breed in vernal pools and fish-free areas of swamps, marshes, or similar wetlands. Larvae metamorphose in late summer or early fall, and disperse into upland forest.

Priority Natural Communities

Black Ash – Red Maple – Tamarack Calcareous Seepage Swamp (Imperiled): This Priority Natural Community type is a mixed deciduous-coniferous forested swamp that occurs in areas with calcium-rich groundwater seepage. Its nutrient enrichment supports many state-listed calcium-loving plant species. This 74-acre occurrence is of good quality and is associated with several state-listed plant species.

Calcareous Rocky Summit/Rock Outcrop (Imperiled): This is a sparsely-vegetated, dry, and open community type typically found along lower-elevation ridge tops within the marble valleys of Berkshire County. Its open aspect is maintained by natural processes that result in the uprooting and falling of trees. This single-acre occurrence in BC1937 has good diversity and moderate landscape context, and is found in association with the other two Priority Natural Communities in the core.

Calcareous Seepage Marsh (Imperiled): This Priority Natural Community type is a marshy wetland enriched by

calcareous groundwater seepage. Of the three types of calcareous fen communities described in Massachusetts, this one is intermediate in terms of nutrient richness and number of botanical rarities. The 16-acre Calcareous Seepage Marsh in BC1937 has good native diversity with some patches of non-native invasive species. It is found along Fairfield Brook and is surrounded by another Priority Natural Community, the Black Ash – Red Maple – Tamarack Calcareous Seepage Swamp (see above).

BC1939 and CNL952

BC1939 is located along Cone Brook in central Richmond, between the railroad and Route 41. It is important for biodiversity despite the presence of some development. It includes an Aquatic Core and Wetland Core that are surrounded by Upland Buffers of CNL952. It also supports several state-listed plant and bird species.

Plants

Fen Sedge (*Carex tetanica*), Special Concern: This is a narrow-leaved perennial sedge that grows in open calcareous fens.

Intermediate Spike-sedge (*Eleocharis intermedia*), Threatened: This is a densely tufted grass-like annual found on muddy, alkaline riverbanks and pondshores, usually visible during periods of low water when mud is exposed.

Slender Cottongrass (*Eriophorum gracile*), Threatened: This peatland species is a colonial perennial sedge that requires open habitats but can tolerate a wide range of water chemistry.

Birds

American Bittern (*Botaurus lentiginosus*), Endangered: This species is a mottled brown, heron-like bird that feeds and nests primarily in large cattail, tussock, or shrub marshes, and is very sensitive to disturbance. Its coloring and unique behavior of pointing its bill skyward when threatened, sometimes swaying to mimic movement of grasses in the wind, make it well-camouflaged in marsh habitat.

Sedge Wren (*Cistothorus platensis*), Endangered: This bird is a perching species that inhabits wetlands dominated by short grasses and sedges – it typically nests in large, wet meadows. It is sensitive to loss of these habitats due to changes in hydrology that drain or reduce moisture in nesting areas. It is also vulnerable to incompatible agricultural activities and encroachments by invasive plants.

BC1978 and CNL997

BC1978 includes 7.6 acres of an Aquatic Core. It is surrounded by an Upland Buffer of CNL997 and supports one state-listed aquatic plant species.

BC2023 and CNL970

BC2023 is defined by a 232-acre Forest Core, and lies within a Landscape Block of CNL970.

BC2037 and CNL997

BC2037 is a 525-acre core located in northeastern Richmond and southwest Pittsfield, within and around Richmond Pond. It also includes land along Royes Brook (one of the pond's tributaries) as well as wetland areas associated with this stream. BC2037 contains Aquatic Core around Richmond Pond and Wetland Core along Royes Brook, both surrounded by Upland Buffers of CNL997. BC2037 is not located far from the City of Pittsfield, the region's most developed and populated area; however, it contains extensive open water and wetland habitat for a variety of state-listed plants, insects, fish, and marshbirds.

Plants

Creeping Sedge (*Carex chordorrhiza*), Endangered: This plant is a grass-like perennial sedge species that occurs in wet, open, and boggy calcareous marshes and fens.

Foxtail Sedge (*Carex alopecoidea*), Threatened: This plant is typically found with other sedges, along with grasses and herbs, in open swales within floodplain forests.

Slender Cottongrass (*Eriophorum gracile*), Threatened: This peatland plant is a colony-forming, perennial sedge that requires open habitats but can tolerate a wide range of water chemistry conditions.

Butterflies

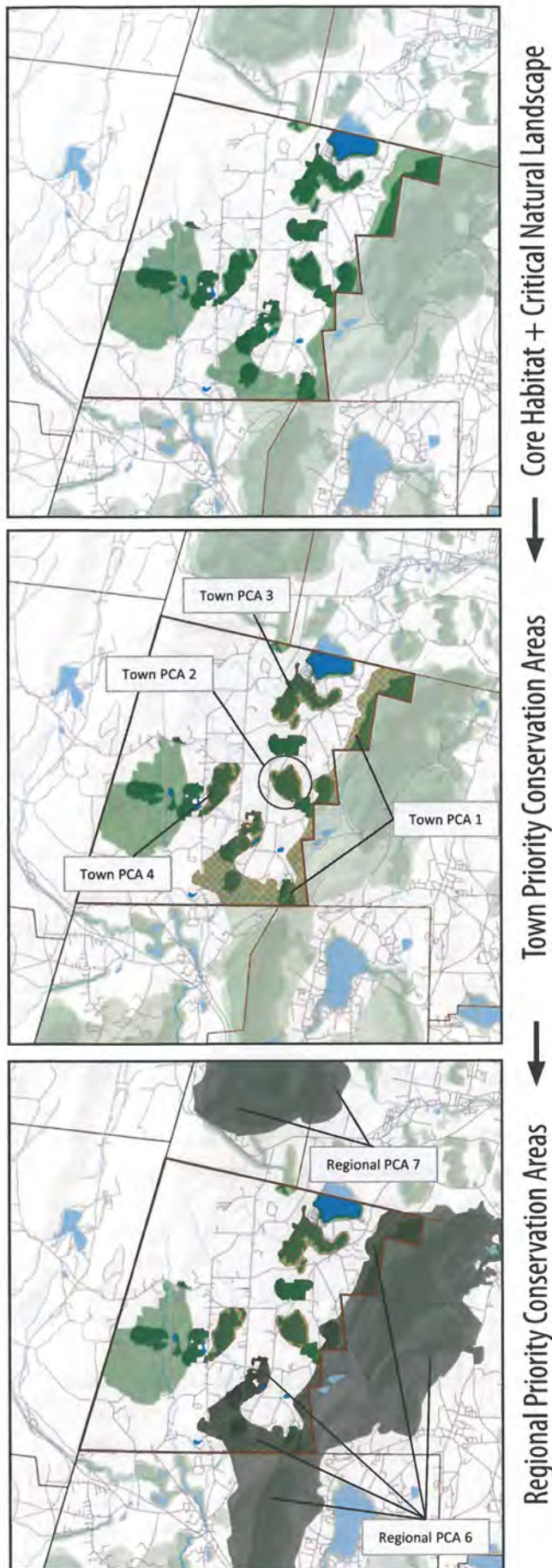
Dion Skipper (*Euphyes dion*), Threatened: In Massachusetts, this butterfly species typically inhabits sedge wetlands, as their larvae feed on sedges (plants of the genus *Carex*). Adults feed on the nectar of milkweeds in upland marshes or old fields.

Fish

Bridle Shiner (*Notropis bifrenatus*), Special Concern: The Bridle Shiner is a small, straw-colored minnow with a distinct dark lateral band that runs from the tip of the snout to the base of the tail. It is typically found in clear water in slack areas of streams and rivers, as well as in lakes and ponds, and is sensitive to turbidity, invasive plant species, and severe changes in flow regime. This fish is generally associated with submerged aquatic vegetation, but it also uses areas of open water to school.

Birds

American Bittern (*Botaurus lentiginosus*), Endangered: This mottled brown heron-like bird feeds and nests primarily in large cattail, tussock, or shrub marshes, and is very sensitive to disturbance. Its coloring and unique behavior of pointing its bill skyward when threatened, sometimes swaying to mimic movement of grasses in the wind, make it well-camouflaged in marsh habitat.



Common Moorhen (*Gallinula chloropus*), Special Concern: These are duck-like marshbirds that inhabit shallow freshwater marshes and typically nest in dense cattail beds adjacent to open water.

Sora (*Porzana carolina*), SWAP: This species is a secretive marshbird that typically nests in dense cattail beds adjacent to open water. Sora are known to breed and nest in BC2037.

BC2341 and CNL1332

BC2341 is an 11,593-acre core that is mostly part of Hancock, to the north of Richmond. It also extends east into Lanesborough and Pittsfield. A small extension (9.9 acres) crosses south into Richmond and contains part of an Aquatic Core that is surrounded by an Upland Buffer of CNL1332.

Priority Conservation Areas in Richmond

Richmond contains four areas identified as Priority Conservation Areas (PCAs) by NHESP. Each is a Town PCA and one – Town PCA 1 – is also part of the larger Regional PCA 6 that extends beyond the town boundaries.

Town PCA 1/Regional PCA 6: Town PCA 1 in Richmond is part of Regional PCA 6, which is an 8,927-acre area that extends from south-central Pittsfield, first along the boundary between Lenox and Richmond, then along the boundary between Stockbridge and West Stockbridge. Regional PCA 6 reaches its southern limit in those two latter towns, just north of the Massachusetts Turnpike. In Richmond, Town PCA 1 is over 1,500 acres and lies all along Richmond's eastern boundary with Lenox. It is the town's largest Town PCA and includes a Forest Core, as well as areas around Lenox Mountain and Cone Brook in southern and southeastern parts of town, and is part of a large Landscape Block. It also includes several locations that support Jefferson Salamanders.

Town PCA 2: This Town PCA lies along Fairfield Brook in east-central Richmond. It includes most of BC1937, which supports a diversity of state-listed plant species and

Figure 3. Core habitat (dark green), Critical Natural Landscape (light green), and Town Priority Conservation Areas (PCAs; reddish-brown grid), and Regional Priority Conservation Areas (transparent grey) in Richmond. Town PCAs make up 2,267 acres, or 18.6 percent of the town's total land area. Part of Regional PCA 7 constitutes 1,549 acres or 12.7 percent of the town's land area

several Priority Natural Communities. Much of this PCA is designated as Aquatic Core.

Town PCA 3: This Town PCA lies along Royes Brook in northern Richmond, just south of Richmond Pond. It includes parts of BC2037 and its associated BioMap2 components, including state-listed plant and insect species, and three marshbirds. Parts of this PCA are also designated as Wetland and Aquatic Cores.

Town PCA 4: Town PCA 4 is along Cone Brook just downstream of the confluence of Sleepy Hollow and Fairfield Brooks. It includes all BioMap2 components associated with BC1939, including many state-listed plant species and Wetland and Aquatic Cores.

Glossary

Aquatic Cores (in BioMap2, a component of Core Habitat) include intact river corridors within which important physical and ecological processes of the river or stream occur, delineated using integrated and functional ecosystems for fish species and other aquatic Species of Conservation Concern. To identify those areas integrally connected to each river and stream, each river segment was buffered 30 meters. All wetlands wholly or partially contained within this buffer were then included, and the combination of the river channel, the adjacent buffer, and the connected wetlands make up this riverine Core Habitat.

BioMap2 Cores (BCs) (called Core Habitats in BioMap2) identify key areas that are critical for the long-term persistence of rare species and other Species of Conservation Concern, as well as a wide diversity of natural communities and intact ecosystems across the Commonwealth. Protection of Core Habitats will contribute to the conservation of specific elements of biodiversity.

Certified Vernal Pools are temporary ponds or other fishless wetlands that meet certain biological and physical criteria to be classified as essential breeding habitat for a number of amphibian and invertebrate species, such as Wood Frog, Spotted Salamander, Blue-spotted Salamander, Jefferson Salamander, Marbled Salamander, and Intricate Fairy Shrimp. The certification of vernal pool habitat in The Commonwealth is administered by the Natural Heritage & Endangered Species Program. A number of regulations incorporate protections for certified vernal pools (please see http://www.mass.gov/dfwele/dfw/nhesp/vernal_pools/pdf/vpcert.pdf for more information).

Critical Natural Landscape (CNL) (part of BioMap2) identifies large natural landscape areas that are minimally impacted by development. If protected, these areas will provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience to natural and anthropogenic disturbances in a rapidly changing world. Areas delineated as Critical Natural Landscape also include buffering upland around wetland, coastal, and aquatic Core Habitats to help ensure their long-term integrity.

Cobbles are small hills or rocky knolls made of marble and quartzite. The alkaline soils derived from the calcareous rocks support a distinct and diverse flora. Examples include Bartholomew's Cobble in southern Sheffield and Tyringham Cobble in Tyringham.

Critically Imperiled natural communities typically have five or fewer documented sites or have very few remain-

ing acres in the state. Natural Community types ranked as Critically Imperiled are in the Priority Natural Communities category.

Disturbance, in an ecological sense, is an event that disrupts the normal structure and function of an ecosystem. Disturbances often produce bare soil and openings in forests where rapidly growing, sun-loving species, including invasive exotic species, can grow. Human activities have accelerated the number and types of disturbances in many ecosystems.

Ecoregions are areas of relatively homogeneous ecological systems, including vegetation, soils, climate, geology, and patterns of human uses.

Endangered species are in danger of extinction throughout all or a significant portion of their range or are in danger of extirpation from Massachusetts. Endangered is a category of state-listed species defined in the Massachusetts Endangered Species Act (M.G.L. c.131A) and listed in its regulations (321 CMR 10.00).

Exemplary Natural Communities are the best examples documented of relatively common (Secure) types of natural communities.

Forest Cores (in BioMap2, a component of Core Habitat) identify the best examples of large, intact forests that are least impacted by roads and development, providing critical "forest interior" habitat for numerous woodland species.

Fragmented Landscape, in ecological and conservation terms, refers to the idea that a large spatial area (the landscape) that in the past might have had connected habitats (for example, unbroken forest, continuous river, or undisturbed grasslands) have become interspersed with artifacts of human development that alter habitat and ecological processes – or that the human influence has come to dominate the land leaving patches, or fragments, of natural habitat surrounded by development.

Imperiled communities typically have 6-20 sites or few remaining acres in the state. Natural Community types ranked as Imperiled are included in the Priority Natural Communities category.

Landscape Blocks (component of BioMap2 Critical Natural Landscape), the primary component of Critical Natural Landscape, are large areas of intact and predominately natural vegetation, consisting of contiguous forests, wetland, rivers, lakes, and ponds, as well as coastal habitats such as

barrier beaches and salt marshes. Pastures and power-line right-of-way, which are less intensively altered than most developed areas, were also included since they provide habitat and connectivity for many species.

Landscape Context refers to taking the broadest view of the ability of ecosystems or species populations to maintain themselves where they are by considering the siting within the larger area. For example, a wooded area within a city park has a very different, urban context than a wooded area on a farm.

MESA (Massachusetts Endangered Species Act) (M.G.L. c.131A) and its implementing regulations (321 CMR 10.00) provide regulatory protection of rare species and their habitats. MESA protects rare species and their habitats by prohibiting the "Take" of any plant or animal species listed as Endangered, Threatened, or Special Concern by the MA Division of Fisheries & Wildlife.

Natural Communities are assemblages of species that occur together in space and time. These groups of plants and animals are found in recurring patterns that are classified and described by their dominant biological and physical features.

Nymphs, sometimes informally referred to as larvae, are the young, immature form of dragonflies and some other invertebrates. Dragonfly nymphs are aquatic. On maturing, they change into the flying terrestrial adults that are seen along rivers and lakes, and nearby uplands.

Priority Natural Communities include types of natural communities with limited distribution, or relatively few occurrences, and/or low acreages in Massachusetts.

Protected in Perpetuity refers to land owned as conservation land by a public entity in Massachusetts whose lands come under the authority of Massachusetts Constitution Article 97, or federal land owned by a federal conservation agency, or by a non-profit dedicated to land conservation; or for which the conservation values have been protected by legal restrictions on the deed or by a conservation easement (conservation restriction).

Secure types of natural communities typically have over 100 sites or abundant acreage across the state; excellent examples are identified as Core Habitat to ensure continued protection and are referred to as Exemplary Natural Communities.

Special Concern species have suffered a decline that could threaten the species if allowed to continue unchecked or occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become Threatened in Massachusetts. Special Concern is a category of state-listed species defined in the

Massachusetts Endangered Species Act (M.G.L. c.131A) and listed in its regulations (321 CMR 10.00).

Species of Conservation Concern (in BioMap2, a component of Core Habitat) include those species that meet the criteria for listing under the Massachusetts Endangered Species Act, as well as a number of species that do not meet these criteria for listing, but are considered to be of conservation concern within Massachusetts, such as inclusion in the State Wildlife Action Plan (SWAP).

State-listed Species are species listed under the Massachusetts Endangered Species Act (M.G.L. c.131A) and its regulations (321 CMR 10.00). – that is, Endangered, Threatened, or Special Concern species.

SWAP (State Wildlife Action Plan), approved in 2006, the Massachusetts Division of Fisheries and Wildlife's State Wildlife Conservation Strategy, most often referred to as the State Wildlife Action Plan (SWAP), is a comprehensive document to help guide wildlife conservation decision making for Massachusetts' wildlife for many years.

SWAP Species were identified as being those in greatest need of conservation in the Massachusetts Division of Fisheries and Wildlife's State Wildlife Conservation Strategy, most often referred to as the State Wildlife Action Plan (SWAP).

Threatened species are likely to become Endangered in Massachusetts in the foreseeable future throughout all or a significant portion of their range. Threatened is a category of state-listed species defined in the Massachusetts Endangered Species Act (M.G.L. c.131A) and listed in its regulations (321 CMR 10.00).

Upland Buffers of Aquatic Cores (component of BioMap2's Critical Natural Landscape) identify protective upland areas adjacent to all Aquatic Cores. A variable width buffer, that extends deeper into surrounding unfragmented habitats than into developed areas, was used to include the most intact areas around Aquatic Cores. The conservation of wetland buffers will support habitats and functionality of each aquatic area, and also include adjacent uplands that are important for many species that move between habitat types.

Upland Buffer of Wetland Cores (component of BioMap2's Critical Natural Landscape) identify protective upland areas adjacent to all Wetland Cores. A variable-width buffer, that extends deeper into surrounding unfragmented habitats than into developed areas, was used to include the most intact areas around the Wetland Cores. The conservation of wetland buffers will support habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

Variant of a natural community refers to a named subtype of a more broadly defined type of community. In Massachusetts the term is not a formal designation, but rather is intended as an aid for understanding community relationships.

Vernal Pools, also known as ephemeral pools, autumnal pools, and temporary woodland ponds, typically fill with water in the autumn or winter due to rainfall and rising groundwater and remain ponded through the spring and into summer. They usually dry completely by the middle or end of summer each year. Vernal pools are unique wildlife habitats best known for the amphibians and invertebrate animals that use them to breed.

Vernal Pool Cores (BioMap2, component of Core Habitat) identify, based on a GIS model, the highest quality most interconnected clusters of Potential Vernal Pools (a dataset of likely vernal pools identified from interpretation of aerial photographs) and the habitat between them.

Vulnerable communities typically have 21-100 sites or limited acreage across the state. Natural Community types ranked as Vulnerable are in the Priority Natural Communities category.

Wetland Cores (BioMap2, component of Core Habitat) identify, based on a GIS model, the least disturbed wetlands within undeveloped landscapes—those with intact buffers and little fragmentation or other stressors associated development. These wetlands are most likely to support critical wetland functions (i.e. natural hydrologic conditions, diverse plant and animal habitats, etc.) and are most likely to maintain these functions into the future.

Help Save Endangered Wildlife!

Please contribute on your Massachusetts income tax form or directly to the



Natural Heritage &
Endangered Species Fund

To learn more about the Natural Heritage & Endangered Species Program and the Commonwealth's rare species, visit our web site at: www.nhesp.org.