

Letters of Recommendation need to be updated

Topsfield

Open Space and Recreation Plan 2018

Prepared by the Topsfield Open Space Committee

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Meredith Farm, Topsfield – 188 acres
Protected with a Conservation Restriction
August 2018

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Section 1 – Plan Summary

The Town of Topsfield, with a population of approximately 6,434 (2016 US Census Bureau estimate), is a semi-rural community located 25 miles north of Boston. Incorporated in 1650, the Town is noted for its picturesque Town Common in the heart of the Historic District, its numerous historic homes and estates, many of which have been subdivided into house lots, its scenic roads and historic Old Route 1. Routes I 95, 1 and 97 pass through the town allowing for easy access to the Route 128 corridor and the metropolitan Boston area. The Ipswich River and its system of tributaries create extensive wetlands, floodplains, and other natural resource areas throughout the Town. Open Space, including the Ipswich River Wildlife Sanctuary, Bradley Palmer State Park, Willowdale State Forest and lands under permanent conservation restriction, comprises nearly one third of Topsfield’s land area and provides opportunities for public recreational and educational use. Topsfield’s agricultural heritage lives on through the annual Topsfield Fair, the nation’s oldest agricultural exposition, owned and operated by the Essex Agricultural Society and a growing interest in the locally grown food movement.

Like other cities and towns in Massachusetts, Topsfield is experiencing budget pressures due to the approval of large expenditures: installing a new water treatment plant, replacement of the Proctor and Steward School roofs, Town Hall renovation and addition, and the purchase of open space. With a reasonably strong economy and very active real estate market, our small town is seeing a significant increase in land preservation as well as significant housing developments since the 2010 Topsfield Open Space and Recreation Plan. The following are examples:

- Rolling Green - 15 duplex buildings - over age 55 housing units (30 Units total)
- English Commons - 50 over age 55 housing units
- Hickory Beech - 22 single family homes
- 333 Perkins Row development –12 single family house subdivision in process
- Donibristle Reservation - 44 acres of protected land acquired by Essex County Greenbelt and under conservation restriction by the Town of Topsfield. The Town was subsequently awarded a reimbursement grant (LAND- Local Acquisitions for Natural Diversity) from the Mass Div. of Conservation Services in the amount of \$400,000. The

grant will reimburse Topsfield for more than 80% of the original cost to the town of acquiring a conservation restriction on this land.

- 290 Ipswich Rd. - in 2007, overlooking the Ipswich River and surrounding Willowdale State Forest was acquired by Essex County Greenbelt Association. Topsfield acquired a \$50,000 public access easement with funds from the Topsfield Conservation Commission. The Mass. Dept. of Conservation and Recreation hold the conservation restriction. Topsfield's \$50,000 to acquire the easement came from funds received by Topsfield's Conservation Commission from the Hickory Beach Realty Trust for the preservation and/or restoration of wildlife habitat. Essex County Greenbelt used the funds received from granting the restriction and easement, to offset their cost of acquiring the property.
- 362 Boston Street, Buttercup Cottage - at the intersection of Route 1 and Ipswich Rd. the approximately ½ acre lot was donated to the Town as open space. The Conservation Commission monitors the property that has been cleaned up by a local Eagle Scout.

Through surveys and public outreach, the Topsfield Open Space Committee has learned that the majority of town residents want to preserve the rural nature of the Town. This desire has been consistent for the past four Open Space and Recreation Plans spanning over 16 years. Residents are concerned about encroaching development and how it will affect scenic vistas, way of life, and of course, taxes.

In spite of an aging population, town residents overwhelmingly wish to improve Topsfield's existing recreational trails and create a linked network of trails as well as increase nature trails. The Committee was gratified to find that the majority of survey respondents used Topsfield trails more than once a week.

The purpose of the 2018 Open Space and Recreation Plan is to provide for the preservation of Topsfield's rural character and protection of its environment by balancing the Town's open space and recreation needs with the Town's developmental pressures.

Many towns and cities in Massachusetts have become unrecognizable in just one lifetime through poorly regulated development. Rachel Carson wrote in *Silent Spring*, "There was once a town in the heart of America where all life seemed to live in harmony with its surroundings." The goal of this plan is to offer realistic goals and objectives based on the desire of the community to retain Topsfield's precious natural beauty and rural character so that we may continue to live in harmony with our natural environment for generations to come.

Section 2 – Introduction

2.A. Statement of Purpose

The purpose of this document is to develop a plan that will enable Topsfield residents to have a greater level of control over the long-term character of the Town of Topsfield (also the "Town"). The Open Space and Recreation Plan (the "Plan") seeks to provide processes by which residents can balance the pressures of commercial and residential growth with the desire and need for open space and recreational areas. As development pressures increase, Topsfield's

residents will be faced with decisions regarding how best to use limited natural and financial resources for developing or preserving land and open space. This Plan, the fifth in a series of updates since 1994, will capitalize on the progress of the 2010 Plan with a focus on specific achievable goals that can be met during trying economic times.

Public interest in open space and natural resources has increased for a variety of reasons. The global debate concerning climate change has raised general awareness of environmental issues. The related “green” movement has also made the public more conscious of the environment, energy efficiency, and the importance of preserving natural resources. There has been an increased incidence of significant rain events over the past 21 years with notable storms causing widespread flooding in 1996, 2001, 2004, 2006 and 2010. In 2006, two people died in the swollen Ipswich River. This is in contrast with record drought conditions in 2016. In an effort to acknowledge the changes occurring to our planet’s climate, this Plan cites goals to achieve greater energy efficiency and thereby help reduce Topsfield’s carbon footprint.

Since implementing the 2010 Plan, the Town has applied for grants for the following critical projects:

- Dept. of Conservation and Recreation trail grant over several years totaling \$152,000 to create a recreational trail on an abandoned railway. Granted.
- Donibristle \$400,000 LAND (Local Acquisitions for Natural Diversity) Grant applied for and granted by the Mass. Division of Conservation Services.
- Topsfield Green Community grants – town hall boiler, thermostats, Proctor and Steward School energy improvements, lighting in town hall. Granted.
- \$8,500 Clean Energy Choice Community for energy audits on Town Hall and a solar power demonstration module. Granted.
- \$30,000 for the Complete Streets grant proposal was received. If the resulting grant is awarded the amount should be \$400,000. A Complete Street is one that provides safe and accessible options for all travel modes – walking, biking, transit, and motorized vehicles – for people of all ages and abilities.

2.B. Planning Process and Public Participation

2.B.1. The Planning Process

The Topsfield Open Space Committee (“TOSC”) was reconstituted by the Board of Selectmen in January of 2004 to update the Open Space and Recreation Plan of 1997 and has remained active to date drafting updated plans and implementing their strategic goals with volunteers.

The current TOSC members are as follows:

Joe Geller, Chair (member since 1998)
David Merrill (member since 2004)
Reggie Lockwood (member since September 2009)
Melissa Ogden (since January 2010)
Martha Sanders (since January 2018)

Additionally, the following individuals and entities have provided tremendous support and assistance in the creation of the 2018 update:

- Martha Morrison, Chair of the Topsfield Planning Board and former Selectman
- Mark Liptak for being responsible for editing the Plan
- John Beck for mapping contributions
- Topsfield Board of Selectmen
- Topsfield Planning Board
- Topsfield Conservation Commission
- Topsfield Historical Commission
- Topsfield Recreation Committee
- Topsfield Water Board
- Topsfield Highway Department
- Topsfield Zoning Board
- Topsfield Board of Health
- Topsfield Board of Water Commissioners
- Topsfield Finance Committee
- Topsfield Board of Assessors
- Topsfield Board of Park and Cemetery Commissioners
- Topsfield Council on Aging
- Tree Planning Committee
- Topsfield Agricultural Commission
- Town of Topsfield residents in many communications, committee meetings and two Public Forums

In the spring of 2017, the TOSC began the update process by first querying all of the Town boards, committees and departments to update the 2010 Open Space and Recreation Survey. Comments were taken into consideration and a draft of the 2018 survey was sent to all Town boards, committees and departments for review. The TOSC also contacted members of

all the Town boards, committees and departments personally to ensure that all pertinent feedback was obtained in going forward with the new Plan. With guidance from the Topsfield community and its leaders, the TOSC completed a town wide survey (See Appendix A - Open Space and Recreation Survey). Notice of the approved survey was mailed to all 2207 Town households in October of 2017. Online surveys were implemented with paper option available. Assistance from the Topsfield Library and Council on Aging was offered. (See Appendix A for 2018 Open Space and Recreation Survey and results).

2.B.2. Public Participation

2018 Open Space and Recreation Survey – The Open Space Survey was mailed to town residents in October 2017. See Appendix A.

Public Forum I – The Town hosted a Public Forum on October 18, 2017. At the forum results of the 2017 survey were presented and discussed. Residents were able to make comments and recommendations.

Grow Spring event – April 7, 2018. This was a community wide event with over 1,000 attendees. The Open Space Committee had a table with the draft plan for public comment.

Public Forum II - *June 19, 7:00 PM at Topsfield Library.*

2.C. Enhanced Outreach and Public Participation

Topsfield does not meet the environmental justice criteria (see Section 5) as established by the Commonwealth's criteria. No town recreational programs, either in the schools or through the Recreation Committee, that require fees will deny registration for financial reasons.

Section 3 – Community Setting

3.A. Regional Context

Topsfield is a small, semi-rural community of 8,230 acres situated approximately 20 miles north of Boston in the heart of Essex County. On its borders are Boxford, Wenham, Hamilton, Middleton, Ipswich, and Danvers. With the exception of Danvers and Middleton, all of these towns retain a rural character of their own, although all are threatened by encroaching development. Topsfield's excellent reputation as a town in which to live due to its schools, character, proximity to Boston and desirable neighborhoods assures that there will be continuing pressure for both residential and commercial development.

Topsfield is linked to neighboring towns by a network of old county roads, including Route 97, and to the Boston metropolitan area and the Route 128 corridor by Routes 1 (Newburyport Turnpike) and I-95. Route I-95, Route 1 and Route 97, which runs north from Beverly, are the main north-south connectors for the Town. Topsfield's Washington Street, High Street, and Ipswich Road provide the main east-west connectors through town.

An abandoned rail line, the Newburyport Branch of the Boston and Maine Railroad that went from Wakefield to Newburyport runs through Topsfield. Abandoned for passenger service in the 1950's and freight service in the 1970's, the rail bed has been developed into an Alternative Transportation Corridor (ATC) or recreational trail that ultimately will connect with trails on the rail bed in towns from Salisbury to Boston (Border to Boston Trail which is part of the East Coast Greenway (the Florida Keys to Canada – see map 12). The recreational trails of other towns along this branch of the rail line are in various stages of development.

Topsfield center is on the National Register Historic District that is also a local Historic District under the jurisdiction of the Historic District Commission. One of the best-preserved town commons in New England, the Topsfield Common features historic municipal and private structures from a number of eras of American architecture surrounding an open green area, including the Veterans' Memorial Green with commemorative war memorials. Among the structures around the Common are the Parson Capen House, a National Register Landmark maintained by the Topsfield Historical Society, the 1842 archetypal white steepled meetinghouse and the Federal-style Emerson Center belonging to the Congregational Church, and the Town's Victorian Gothic Town Hall, Georgian Revival Library and Proctor School. Nearby is a small shopping center with small "Mom and Pop" stores. Topsfield does not have large strip malls or chain stores as are abundant in the abutting towns of Danvers and Middleton, but it does have several automobile businesses and industrial structures on a portion of Route 1 between the Topsfield Fairgrounds and Route 97, as well as three business parks farther north on Route 1.

The primary reason Topsfield has been able to retain its rural character is that approximately one-third, or 2,850 acres of the total area of Topsfield, is owned by various entities: a Massachusetts Audubon, Essex County Greenbelt, a portion of Bradley Palmer State Park, a portion of Willowdale State Forest, the Beverly-Salem Water Board, the Essex County Agricultural Society (Topsfield Fairgrounds), the Town of Topsfield, and land that individual residents have placed under conservation restrictions. Chapter Land classification is also present. This provides property tax benefits for encouraging the conservation, preservation and development of land for forest, agricultural and certain recreational uses. In addition, the Town has developed various protective by-laws, including the Scenic Overlay Zone running along Route 1 from the Ipswich River to the Danvers line. This overlay zone establishes development standards along Topsfield's "scenic highway."

The Ipswich River is one of the most important natural features in the Town. However, in 2003 the Ipswich River was designated by the environmental group, American Rivers, as one of the country's ten most endangered rivers, a designation it still carries. The river's source is in Wilmington, Massachusetts, and it flows in a northeast direction for about forty-five miles to Ipswich, where it empties into the Atlantic Ocean. More than seven miles of the river flows through Topsfield. The river also has several tributaries throughout Town, namely, Fish, Mile, School, Pye, and Howlett Brooks. In recent history, sections of the Ipswich River upstream of Topsfield have reported to have been "pumped dry" in the summer, including this past summer, to meet increasing water demands of some of the 14 communities drawing from its watershed. The restriction of water use based on river flow has helped improve the condition of the Ipswich River, though continuing development of the 14 communities continues to

pressure the river's water levels, endangering its quality, and the river's ability to sustain its native fish and wildlife population.

The Town of Wilmington draws almost all its water from wells located in the headwaters of the Ipswich River. The Town of Reading stopped pumping from their Ipswich River wells in late 2006; Reading's wells are now available as an emergency supply only. North Reading, Lynnfield, and Danvers/Middleton also draw water from wells along the river upstream of Topsfield. Seasonal flooding in years of normal or more-than-normal precipitation is common and has been exaggerated by the filling of wetlands and the channeling of streams in past decades and beaver activity over the last two decades. Topsfield draws its public water from two shallow groundwater well fields (locations not publicly listed) which can negatively affect the flow of Mile Brook and ultimately the river. While the Town of Topsfield does not draw its water supply directly from the River, it does draw from the river's watershed, which is a vital natural resource for preservation of wildlife and recreation.

The open lands within Topsfield have significance beyond the Town's lines. Bradley Palmer State Park, Willowdale State Forest, the Massachusetts Audubon Sanctuary and the Salem and Beverly Water Supply Board's land all cross into adjoining towns. There is considerable regional interest in the protection of surface water quality for the Ipswich River watershed. In addition, the potential and existing linkage of trails and wildlife corridors increases the value of these open space and recreational assets for the Town, as well as for the entire region. Cooperation with adjacent towns should ensure that land use, zoning, and conservation measures are complementary, and may expand conservation and recreation benefits.

3.B. History of the Community

Three hundred and fifty years ago, the land that today makes up most of Essex County was the home of the Agawam Indians. In 1638, their Sachem, Masconomet, deeded the bulk of this land to John Winthrop, son of the first governor of the Commonwealth, for twenty pounds.

Topsfield's first settlers arrived about 1641. They named the area "New Meadows" which was taken from the Indian name, She-ne-we-medy, "the pleasant place by flowing waters". In 1648 the name was changed to Toppesfield, after a small parish in Essex County, England, just north of London, and eventually to Topsfield. The Town was incorporated in 1650.

Most of the early settlers were farmers. Corn was one of their major crops; therefore, grinding became an important industry. In addition to farming, there are records of a sawmill, with shoemaking, tanning, tailoring and blacksmithing being other early trades. Route 1 (Newburyport Turnpike) opened as a toll road in 1805. There was an attempt to establish a copper mine, which failed, and in the 1850's there were shoe factories on either side of Main Street. The first railroad cars passed through Topsfield in 1854.

Soon after 1900, with the advent of automobiles and improved roads, the Town became a favored residence for those whose work took them to Salem, Beverly, Lynn and Boston. Many

of the small farms were purchased to become part of large estates, but the day of large estates, like the Town's industrial period, was of short duration.

In 1932, the present Proctor School was built and currently houses grades four through six. In 1963, the Steward School was opened and currently houses Steward Station (a supplemental kindergarten and day care program), preschool, and kindergarten through third grades. Topsfield students in grades 7 - 12 attend Masconomet Regional Middle School and High School, with students from Boxford and Middleton. Masconomet is located just across the Topsfield line in Boxford.

In 1946, Topsfield adopted its first zoning bylaw that has been amended and revised over the years to adapt to changes in State law and local needs. In 1956, a building code was adopted. In 1954, a soil removal bylaw was voted to control indiscriminate stripping of loam and excavation of gravel. In 1961, a Master Plan was developed. In 1964, a Flood-plain district was added to the zoning bylaw. In 1972, a Conservation Commission was appointed under the State Wetlands Protection Act. A Historic District and a Business District were both established in the 1970's. In the 1950's and 1960's, the Town experienced rapid population growth, doubling in size, becoming a bedroom community for residents working in surrounding commercial towns.

In 1976, the Topsfield Housing Authority developed Little Brook Village to serve the senior population. Subsequently, Washington Meadows, partially supported by federal funds, was also developed to provide affordable senior housing. In the mid-1990s, a cooperative community, called Great Hill was established to provide over-55 housing; this community helped to preserve a significant hillside area. Then in 2004 Amberwood Farms, an over 55 community was built adding 24 units. More recently, the former Nike Village has been converted by Northeast Health Care into residences and is now being operated by Serenity Supportive Housing for up to 35 individuals being served by the Department of Mental Health. Since 2000, with approval at Town Meeting overlay zones for three additional over 55 condominium developments and one large subdivision have been added including:

- Rolling Green- 30 over 55 housing units
- English Commons - 50 over 55 housing units
- New Meadows - 24 over 55 housing units
- Hickory Beech - 22 single family homes

These four developments have taken advantage of significant open space components. By virtue of the Town's Open Space Residential Development Bylaw at least half the acreage of these developments was added to the Town's Open Space Inventory. Hickory Beech and English Commons both provided easements for walking trails open to the public.

A separate Board of Health was established in 1982, and the Town voted a local wetlands bylaw in 1983. In 1985, the Town center was renovated with the installation of new curbing, and new trees and plantings. In 2005 and succeeding years, the Town adopted the Scenic Overlay District Bylaw, a Scenic Road bylaw, a Stormwater and Erosion Control Bylaw, and a Water Conservation Bylaw, all designed to protect the scenic and natural resources of the Town. Since

2010 the Town approved a zoning change to make a buildable parcel in both the Inner Residential and Agricultural Districts, which is almost entirely built out, have a minimum of 2 acres. To ensure that new lots include a reasonable amount of unrestricted land to support a house and its infrastructure, another by-law requires that a new lot's buildable area contains a 100 ft. diameter circle within which there is not more than 5% of buffer zone. Further bylaw adoptions at Town Meeting include: a Flood Plain District, Wind Energy Conversion Systems , Ground Mounted Solar, Stormwater and Erosion Control, Stretch Code and revisions to Demolition Delay.

In the 1970's, Klock Park, an area of nineteen acres, was developed off North Street with baseball and soccer fields. Between 1997 and 2004, the TOSC created Pye Brook Community Park on the site of the abandoned landfill, located between Bare Hill Road and Route 97. The park includes active and passive recreational opportunities as well as additional playing fields for the Town. More recreational opportunities were created in 2009 with the addition of new playing fields at Pye Brook Community Park, and the Topsfield Linear Common, a 3.9 mile-long recreational path on the abandoned B&M rail corridor. Currently there are over twenty playing fields or practice fields in Topsfield as follows:

- Emerson Fields (leased): 2 softball fields, 1 baseball field
- Proctor School: 2 baseball fields, and 2 tennis courts
- Steward School: playing fields and 2 tennis courts
- Klock Park: 2 baseball fields and 6 soccer fields
- Pye Brook Community Park: 4 baseball fields, 4 soccer/lacrosse/football fields and a Disc golf course, Wildlife Path – a 2 mile-long walking path around the park
- Topsfield Fairgrounds Central St: lacrosse/practice fields
- Topsfield Fairgrounds Wheatland Field: football/lacrosse
- Normandy Row Park: practice field
- Town of Topsfield: Wheatland sledding hill

Topsfield is still small enough that some consider the town to have a feeling of “neighborliness” and be considered by its residents to be “rural”. All of our Open Space and Recreations surveys indicate Topsfield's residents most value scenic vistas, open space and town character. The village center offers somewhat of a focal point for shopping and services and many group activities take place in the churches, library, town hall, and schools.

3.C. Population Characteristics

Topsfield's population and housing units have changed as follows:

<u>Year</u>	<u>Residents</u>	<u>Housing Units</u>
1970	5225	1355
1980	5709	1758
1990	5754	1910
2000	6141	2099
2010	6085	2090
2016 (est)	6434	-

Table 1 - Population and Housing by decade ¹

As the above figures show, between 1970 and 2010, a population increase of nearly 16.5% was matched by an increase of 54.2% in the number of housing units in Topsfield, indicating fewer residents per household. Based on the 2016 census data estimates there were 6,434 residents, Topsfield's land area is 12.8 square miles which translates to a population density of (502.6 residents per square mile). The Topsfield Town Clerk's office quotes a population of 6,707 residents as of January 1, 2017, which is based on responses to the annual town survey with an unknown margin of error.

The median household income according to the U.S. Census Bureau 2012-2016 American Community Survey 5-Year Estimates, was \$128,283 per year, with approximately 2,233 households in Topsfield. The majority of residents (82%) work outside of Topsfield, which is down slightly from 1990. One reason for the small number of residents employed in Town is that only about 5% of the properties are devoted to commercial and industrial purposes. These are located primarily in the Business Village District and along Route 1 near its intersections with Route 97, Ipswich Road and especially, north of North Street in several small office parks. These businesses are relatively small and have fewer than 50 employees. In addition, employment opportunities within Topsfield will be based on the development of small office parks with little or no new manufacturing due to resident opposition to this type of development (See Appendix A). However, numerous job opportunities exist both in nearby towns and cities (i.e. Beverly and Salem, and in Boston and along Route 128).

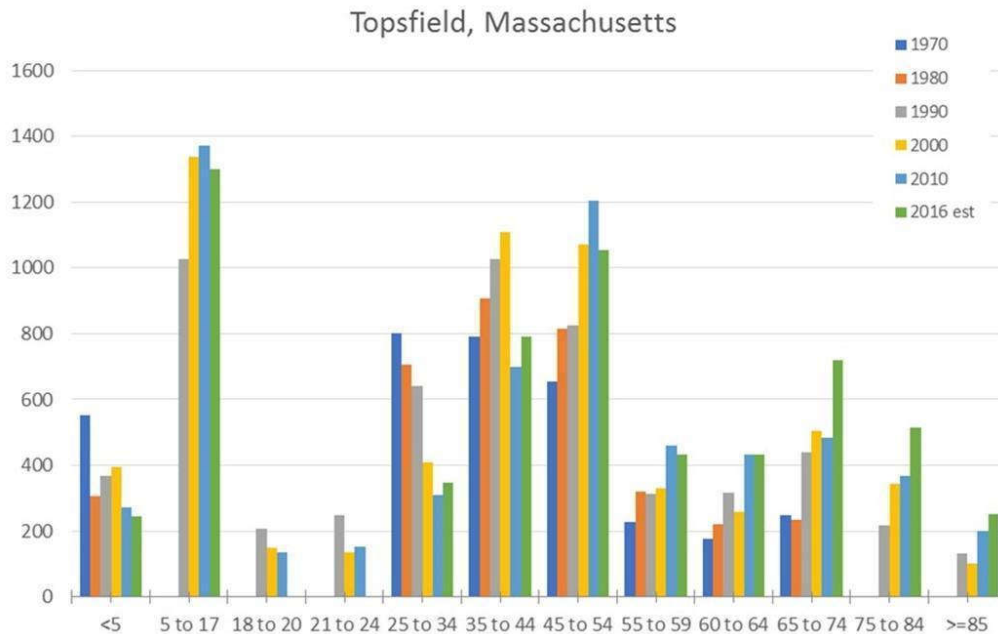


Figure 1 - Demographic Data for Topsfield - 1970 to 2016

¹Based on US Census Data

The Open Space Committee used data from the US Census collected in 1970, 1980, 1990, 2000, 2010 and the 2016 estimate to examine population trends by age group over a forty-six-year time period. Although there are some discontinuities in data reporting in the 1970, 1980 and 2016 estimates where the census data did not show population counts for several age cohorts we were still able to observe some notable trends in the data.

Compared to the 2016 US Census Bureau estimates:

5 to 17-year-old	+ 26.7% since 1990
25 to 34-year-old	- 56.7% since 1970
45 to 54-year-old	+ 61.5% since 1970
55 and older	+165.7% since 1990

Although the population has remained relatively stable over the past several years, the demographics of the Town are changing. The median age is now 47 years which has increased from 34 years in 1970. This number is projected to continue to trend upward, as evidenced by the Census data discussed above, due to seniors wanting to stay in Topsfield and the possible growth of planned housing developments targeted towards senior citizens (i.e. English Commons, Amberwood Farms, Rolling Green, Great Hill, and New Meadows, as previously mentioned), as well as increases in the number of baby boomers who are remaining in their homes longer. As in previous years the 2017 town survey indicates the need for more recreational trails, as our 55+ year old citizens are increasing in numbers and are physically active.

3.D. Growth and Development Patterns

3.D.1. Patterns and Trends.

Generally, Topsfield has retained its desired rural character, as its growth has been orderly in comparison to surrounding communities, due in part to the large land holdings discussed in Section 3(B) of this plan. It is now primarily a bedroom community with little commercial or industrial development. Residential growth in several areas in the Town, however, has nearly exhausted the remaining building space with little or no provision for open space. See Map 3 - Zoning.

Reflecting the stable population in Topsfield, we have seen very few single-family building permits over the past several years. However, with the Town approval of the English Common Condominium development, New Meadows Condominium development and the Hickory Beech subdivision Topsfield showed an increase of new residential housing from 2011-2013. We may again see a trend of increased housing units as the Town has recently approved the Rolling Green condominium development which is now nearly built out. The data in the table below is from new occupancy certificates within the indicated fiscal year.

Year	Single Family Buildings	Condominium Units
FY2005	3	4
FY2006	6	0
FY2007	2	0
FY2008	2	0
FY2009	3	0
2010 ²	9	2
2011	8	25
2012	8	18
2013	13	26
2014	3	2
2015	2	0
2016	5	4
2017 ³	0	0

To assess the cost to the Town of various property classifications we have estimated using a COCS (Cost of Community Services) calculation. A COCS ratio greater than 1 indicates the property classification costs the Town more in services than it receives in revenue from taxes. For residential properties, the taxes required in FY '16 to support those properties were \$20,923,327. At the other end of the spectrum open space and chapter land have a ratio of 0.46. The COCS shows there are positive financial benefits to the Town for commercial, industrial, agricultural and open space and chapter land.

Cost of Community Services				
Tax rate for FY-16	\$ 16.50	per \$1000		
Land category	Acres	Assessment	Ass't/acre	CoCs Ratio
Residential	3728	\$ 1,149,559,404	\$ 308,333	1.18
Res. (EHD)	200	\$ 98,958,109	\$ 495,727	0.67
Res. Mixed use	478	\$ 17,491,817	\$ 36,615	1.07
Com./Ind mixed use	26	\$ 16,960,900	\$ 649,594	0.64
Com. Indust.	359	\$ 53,596,425	\$ 149,454	0.64
Agriculture	290	\$ 3,415,745	\$ 11,789	0.64
Open Space	227	\$ 626,523	\$ 2,755	0.46
Totals	5308	\$ 1,340,608,923		

The low development density within the Town of Topsfield is associated with the fact that the Town does not have a central sewage treatment facility and sewer system. Any proposed development within the Town must comply with the design requirements as set forth in Title V

² Beginning January 1, 2010, Building Permits data is based on permits issued in a calendar year per the Topsfield Assessor's office.

³ In 2017, the Town issued 30 permits for foundations at the Rolling Greens 55+ Subdivision located at 470 Boston Street. In connection with this condominium development 12 dwelling building permits have been issued but no homes have been completed (as evidenced by the issuance of a Certificate of Occupancy by the Town of Topsfield) as of February 9, 2018.

(State Code) and the supplemental Topsfield Board of Health Regulations. The purpose of these regulations is to provide for the protection of public health, safety, welfare and the environment by requiring the proper siting, construction, upgrade and maintenance of on-site sewage disposal systems. Much of the undeveloped land within Topsfield does not meet the criteria set forth in the regulations and is not suitable for on-site sewage disposal. The BOH's last update to the septic regulations in 2014 included increasing the percolation rate from 20 minutes per inch (mpi) to 30 mpi for new construction. The increase in percolation rate, which could have resulted in increased development, did not. More specifically, the BOH has issued fewer new construction permits in the four years since the regulation went into effect as compared to the four years prior to the regulation change. The percolation rate is just one factor of many considered when determining whether a site is suitable for an on-site sewage disposal system

Regulation of the number and type of commercial and light industrial development uses was realized in the late 1970's when the zoning bylaws were amended to create a Business Park District north of North Street extending along both sides of the Route 1 (Newburyport Turnpike) for a maximum depth of 200 feet. Previously, development along Route 1 in Town had varied between residential and business uses with no attempt to separate the two.

Topsfield's Executive Order 418, Community Development Plan focused on Housing and Economic Development in that the Open Space and Transportation components were fulfilled by Topsfield's Open Space and Recreation Plan and the State's regional transportation plans. To accommodate more diverse housing opportunities, mixed-use development is now permitted by Special Permit in the four business districts. Prior to the downturn in the housing market in the early 2010's two (2) over 55 communities completed the permitting process and a subdivision of 22 new houses in the 78 acre Hickory Beech development (with a 39 acre open space set aside) was approved. The completed English Commons project has fifty (50) units sited off of Route 1 on property formerly owned Boston College. This 68-acre parcel has 50 acres set aside for open space with an easement for a walking trail surrounding the entire property open to all. The completed New Meadows development is also sited near Route 1 on part of the New Meadows golf course. Topsfield earned Housing Certification from the Commonwealth of Massachusetts and has a re-utilization and improvement plan to produce seventeen (17) units of affordable housing per year over a 10-year period. The town currently has 155 units of affordable housing or 7.2% of its housing units.⁴ The 30-unit age 55+ Rolling Green project, also on Route 1, is under construction and features a walking trail for its residents.

As for Economic Development, at the 2009 Town meeting, zoning changes included the expansion of uses in the Business Highway and the creation of a new business district, the Business Highway North District. Goals of these changes were to establish acceptable uses for these areas and bring existing non-conforming uses into conformity in order to provide the Town with improved control over how the lots might be developed in the future. Uses of the

⁴ Data as of September 14, 2017 from Department of Housing and Community Development Chapter 40B Subsidized Housing Inventory (SHI). https://www.mass.gov/files/documents/2017/10/10/shiinventory_0.pdf

property were specified limiting development to respect the surrounding residential neighborhoods. This also has the effect of minimizing the possibility of a property-by-property appeals process for future development and provide uniform regulations.

At the 2018 Town meeting, voters approved the creation of a Medical Marijuana Cultivation/Processing Overlay District in the multiple lots comprising the Business Park District and over the parcel described as Lot 1 on Map 45. If the zoning change is approved by the Attorney General, the cultivation of medical marijuana would be permitted with state approvals and, at the local level, a special permit issued by, and site plan review approved by the Topsfield Zoning Board of Appeals. The approval of this zoning by-law, and the landowner's subsequent receipt of state and local permits including a financial agreement with the Town, is projected to bring additional revenues to Topsfield.

Topsfield has an improved Open Space Residential Development Bylaw for parcels over 10 acres which may serve to alter future residential development from the typical Form A lots. The benefits to the Town and Open Space are: to allow for greater flexibility in the design of residential developments in the Inner Residential and Agricultural District and Outlying Residential and Agricultural District; to encourage, for conservation and recreation purposes, the permanent preservation of open space, agricultural land, woodland, wildlife habitat, other natural resources including aquifers, water bodies and wetlands, recreational, historical and archeological resources; to encourage a less sprawling and more efficient form of development that consumes less open land and conforms to existing topography and natural features, than a conventional or grid subdivision; to minimize the total amount of disturbance on the site of residential developments; to further the goals and policies of the Topsfield Open Space and Recreation Plan; and to facilitate the construction and maintenance of housing, streets, utilities, and public services in a more economic and efficient manner while protecting open space. Ownership of the open space can be held by a corporation of the land owners, by the Town of Topsfield, by an independent conservation entity approved by the Planning Board, or in common by the owners of the land in the tract.

To protect its historic and natural resources, as noted above, Topsfield adopted a Scenic Roads Bylaw, a Scenic Overlay Zoning District along old Route 1, a revised and more stringent Open Space Residential Development Bylaw, a Stormwater and Erosion Control Bylaw, low-impact development guidelines and Water conservation bylaws.

3.D.2. Infrastructure

3.D.2.a Transportation Systems.

The major East-West roads in Town are Washington Street, High Street and Ipswich Road, while Routes 1 (Newburyport Turnpike) and 97 (Haverhill, High Street and Valley Road) serve as the main North-South connectors. Nearly all other roads are connections between or among the various residential areas in Town with the notable exception of Route I-95 that cuts through the extreme southwest corner of Town.

Public transportation (2 trips in and 2 out) to Boston is provided by The Coach Company. There is no direct rail service to Topsfield; however, residents can use MBTA trains from Ipswich, Hamilton-Wenham, North Beverly, and Beverly. Public transportation to Logan Airport is available in Peabody using the Logan Express parking lot and bus.

For ten days each year, the Topsfield Fair, the oldest agricultural fair in the United States, is held at the fairgrounds on Route 1, attracting nearly a half million visitors. Traffic becomes somewhat congested during this time, especially during the two weekends the Fair is in session when backups occur on Routes 1 and 97 and as far south as I-95. However, one can travel to all other parts of Town during Fair week without trouble provided alternate secondary roads are traveled. The Essex Agricultural Society operates the Topsfield Fair. The Society recently purchased land that would have otherwise been developed and created the “Fair View” Farm on Route 1 for much needed fair parking and executive offices. The Topsfield Linear Common recreational trail is used heavily by fair goers to save on parking fees and traffic congestion.

The Topsfield Linear Common recreational path, which was overwhelmingly supported in the past three Open Space surveys, is 66% complete with the remainder open but without a finished stone dust surface. The path is being built on the abandoned B&M railroad utility corridor, which was known as the Newburyport Branch from Wakefield to Newburyport. The corridor is 3.9 miles in length and will become part of the Border-to-Boston trail, which will also become part of the East Coast Greenway, a trail from Florida to northern Maine (see Map 12). A parking area off Rt. 97 was just completed to accommodate up to 9 cars. The impetus for the parking area was to provide a safe location to unload and load watercraft to be used at the Ipswich River canoe launch area, which is operated by the Mass. Department of Fisheries and Wildlife. Despite being in the riverfront area, an area subject to flooding, and in the bordering vegetated wetland, the project was approved by the Topsfield Conservation Commission and the Mass. Department of Environmental Protection under a “Limited Project” designation which allows for public access to the waterways.

A walking path was constructed along South Main Street from Maple Street to Salem Road to provide a safe off-road path for the many people who walk “the circuit” through the River Road National Historic Register District that includes a portion of the heavily traveled South Main Street. This path also allows safer access to the Topsfield Fairgrounds to and from the Town center.

3.D.2.b. Public or Private Water Supply Systems:

Topsfield currently meets its demand for potable water by utilizing the area's Ipswich River Watershed groundwater resources. Topsfield does not use surface water bodies such as brooks, ponds, or the Ipswich River as a direct supply of drinking water. However, these bodies are linked to the availability and quality of the groundwater supply (See Map 6- Water Resources). During the year the groundwater is recharged by water that percolates through the beds of streams, ponds, and rivers, as well as by rainfall. The greatest benefit of groundwater is the filtration that occurs as the water flows through the soil, naturally removing impurities and microorganisms.

Approximately twenty percent (20%) of the Town's residents obtain their water from private wells that range in depth from 10 to 2,000 feet or more. The private Eagle Tor water system uses four interconnected shallow wells to supply approximately fifteen (15) homes. The Topsfield Water Department has nearly 1,750 connections that serve domestic, commercial, municipal, and industrial users. The Town pumps approximately 150 million gallons of water a year to serve its customers, whose average usage is approximately 80,000 gallons.

The public system utilizes an unconfined (water table) aquifer made up of sand and gravel deposits that are approximately 40 feet deep. The supply system consists of two well-fields. For security reasons, these well-fields will be referred to as "A" and "B". The "A" well-field uses 36 interconnected shallow wells and is capable of pumping 900 gallons per minute to meet peak demands, but normally operates at 550 gallons per minute. The "B" well-field uses 20 interconnected shallow wells and produces 300 gallons per minute.

The quality of the Town operated water supply has changed very little in the last 50 years. Currently, one part per million of sodium fluoride is added to prevent tooth decay, potassium hydroxide is used to reduce the corrosive effects of the water and sodium hypochlorite is used as a disinfectant.

The Water Department has two principal water resource concerns: the vulnerability of the Town's aquifer to contamination and the ability to provide water during high use periods in drought season. Unconfined aquifers are particularly susceptible to contamination due to the lack of a confining layer that would act as a barrier to any contamination percolating down from above. The proximity of salt runoff from main roads and gasoline stations near the supply areas heightens the risk of contamination.

Meeting the Town's demand for water during the dry summer months is a concern shared with other communities utilizing the Ipswich River Watershed. In Topsfield summer water use is about fifty percent greater than winter use. A major reason for this difference is lawn and garden watering. As a result, Topsfield has enacted a bylaw restricting outdoor water use during low flow conditions of the Ipswich River.

The increased manganese in the water occurred 8 to 10 years after a significant increase in beaver activity in the streams near the well fields. The beaver activity reduced the flow and attendant aeration of the water in the streams allowing the creation of soluble manganese

compounds which slowly infiltrated groundwater in the well fields. As the raw water containing soluble manganese is treated for pH adjustment and chlorination, the solvency of the manganese is reduced and the resulting insoluble manganese precipitates out in the distribution system. In 2014 the Town began a project to design and construct a water treatment plant to reduce the content of manganese in the treated water. That plant is expected to begin operation in 2019.

Despite water conservation restrictions required by communities and general outreach efforts that encourage enhanced water conservation measures, the Ipswich River remains threatened due to over-allocation of water for residents and businesses throughout the watershed and the fact that 83% of the water withdrawn is registered or grandfathered and thus exempt from conservation requirements. Recent drought conditions, particularly seen during the drought of 2016, emphasize the need for concern and desire for new solutions.

The Town of Topsfield's water withdrawals are governed by the Massachusetts Department of Environmental Protection's Sustainable Water Management Initiative, part of the state's Water Management Act (WMA). The WMA Permits are for 20 years; however, the WMA Ipswich permits, which expired in 2006, have been extended while state officials from the Executive Office of Energy & Environmental Affairs meet with permittees to review individual circumstances and to develop mitigation, minimization, and fishery protection plans. Ipswich River basin's revised permits are due to be released for public review in 2018.

New regulations have set a cap on overall withdrawals from the watershed at existing levels which will require significant mitigation and minimization requirements such that Topsfield will have to comply with increasingly onerous compliance regulations to offset any increase in demand. It is likely the town will have to offset new water demand from existing users. As a result, it will be important for the town to ensure that water use by three proposed new developments and redevelopment does not further stress the local and regional water supply.

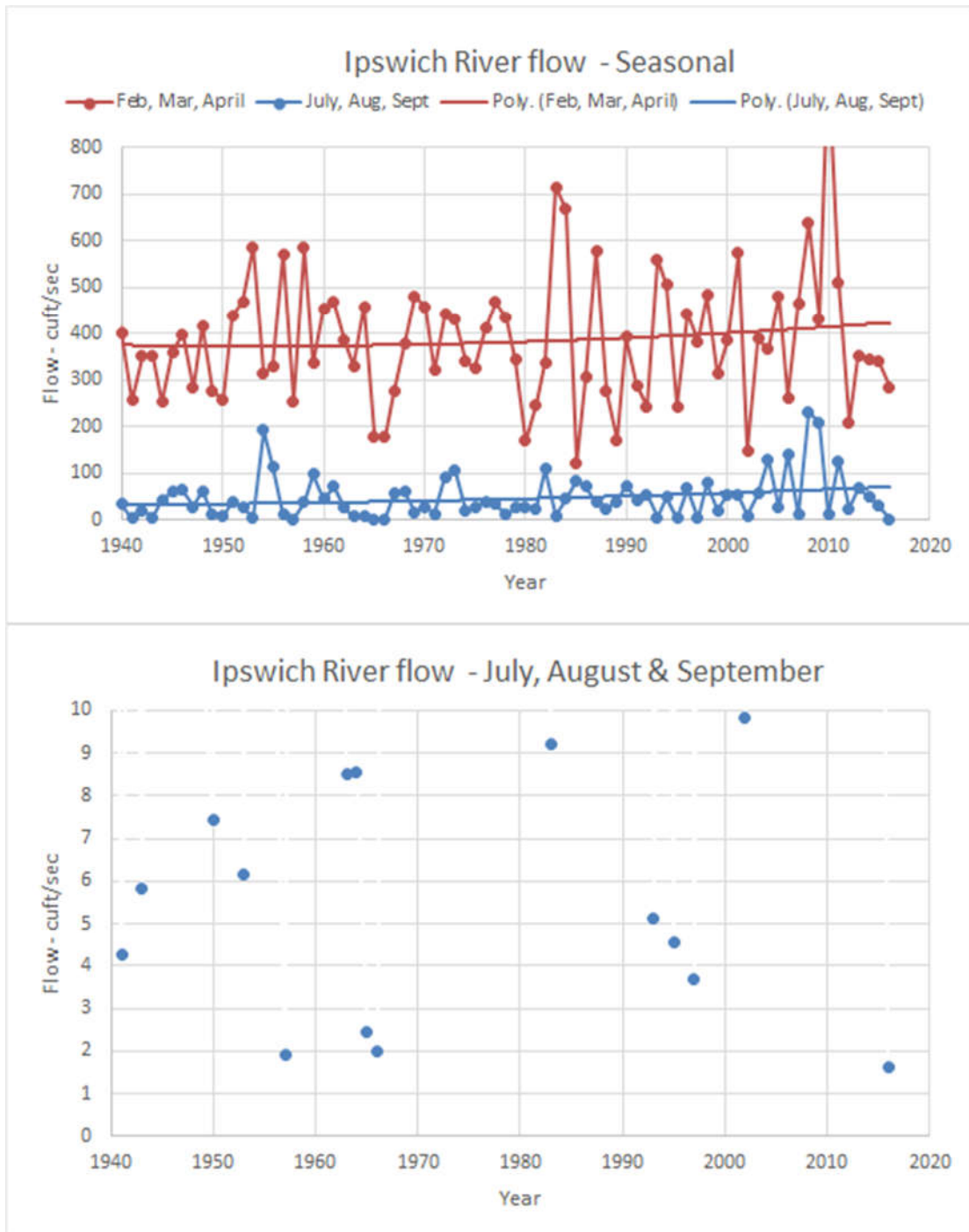
Possible solutions and strategies include:

- Encourage developers to offset 100% of the projected water use through both minimization of water use within the development (e.g. ultra-efficient fixtures) and offsetting the remainder by working with town officials to address water use in other areas of town (e.g. fund leak detection, upgrade of fixtures in municipal buildings, support a public rebate program, etc.).
- Encourage developers to minimize stormwater runoff through site design (e.g. minimize impervious areas) and onsite, ground infiltration of stormwater.
- Encourage developers to plant landscapes with drought-tolerant native species, which do not require irrigation (beyond the establishment phase).
- Discourage installation of and use of automatic irrigation systems
- Implement LID (Low Impact Design)
- Encourage that lawns be planted with drought tolerant turf grasses such as fescues and encourage site design that minimizes the amount of lawn area.

Note: In accordance with the town's Stormwater Management bylaw (Chapter LI), a development should maintain "after-development runoff characteristics as equal to or less

than the pre-development runoff characteristics”.

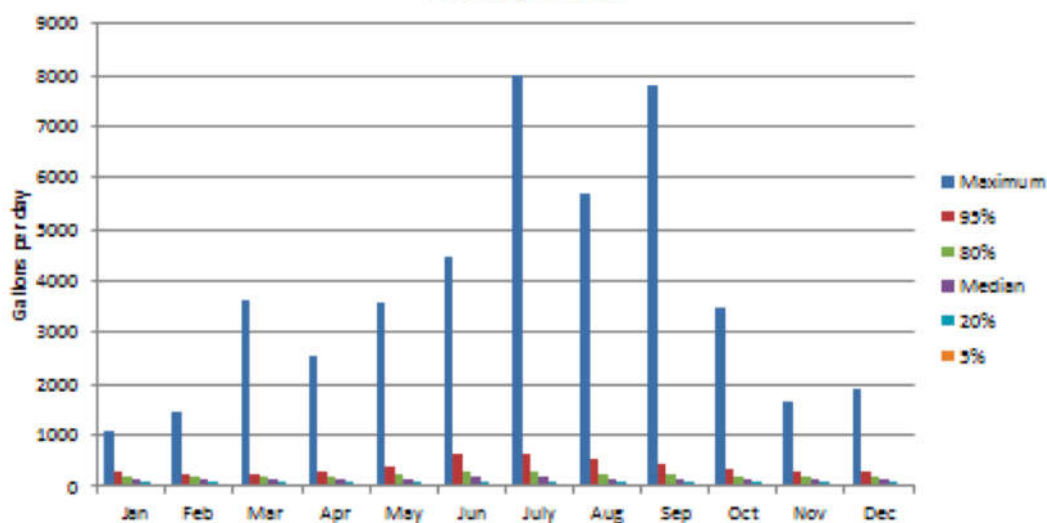
The charts below illustrate the summer and winter seasonal river flow from 1940 through 2016 (source was the USGS). There is significantly more flow during the winter. The trend lines show a slight increase in flow for both winter and summer seasons over that past 20 years. The lower graph shows the same data but with the flow rate scale changed to a maximum of 10 cuft/sec highlighting extreme low flows during the summer months. There appears to be a small improvement again over the past 20 years. From 1955 to 1970 there were three flows of about 2 cuft/sec while the next 40 years we have experienced only one.



When considering the water treatment plant, the town evaluated alternatives including bringing water from outside the Ipswich River Basin, the most likely supply being the MWRA. While this would ease stress on the Basin and alleviate our water growth restrictions, the initial cost for Topsfield to access the MWRA supply was prohibitive. However, had other local towns also wanted MWRA water, the shared cost of access could have mitigated our initial costs. While Topsfield's direction for the next several decades has been set by our decision to build a water treatment plant, for the longer term we may still consider sources outside the Basin. As such, we continue to discuss outside sources with surrounding communities.

Topsfield Water Use

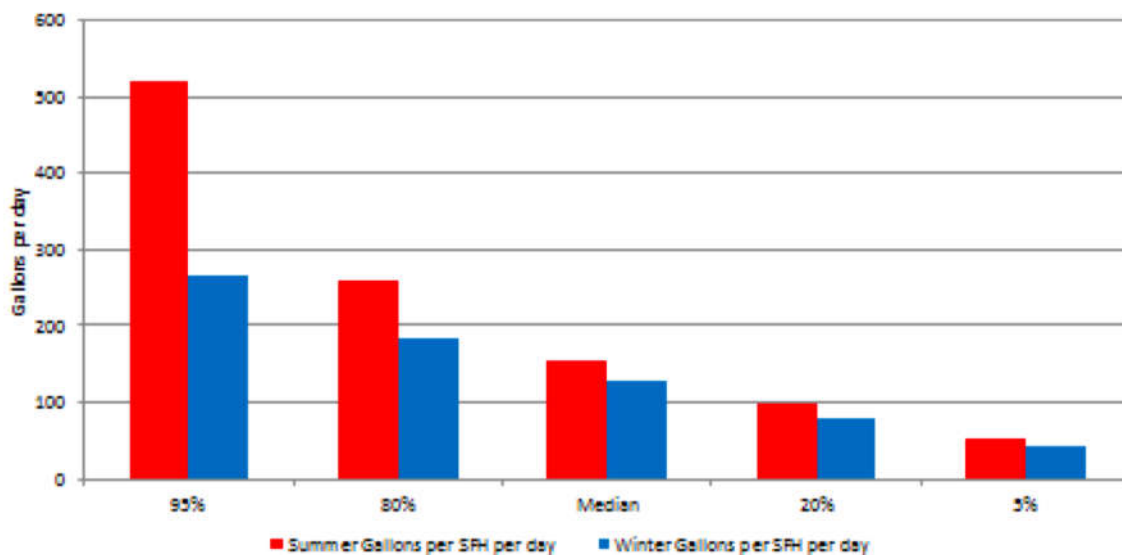
Single Family Home Water Use, gallons per day, in Topsfield, 2010-2014, by account percentile



Topsfield Water Use

take out "maximum" category, look at Summer vs. Winter

Daily water use per single family home (SFH) in Topsfield, Summer vs. Winter



3.D.2.c. Sewer Systems

In the Town of Topsfield, there is no public sewer system. Therefore, homes, offices, and any industrial-use buildings rely on in-ground septic systems for the disposal of sanitary sewerage. These are systems comprised of a holding tank and leaching areas which consist of leaching fields, trenches, leaching pits, galleries, or chambers. The liquid portion of the waste or effluent percolates locally through the ground. Residents and businesses engage private contractors to periodically pump septage, the more solid residue, from their onsite septic tank and the septage is disposed of at a treatment facility outside the community.

The Town's public water supply is dependent upon the quality of our groundwater. The proper functioning of our septic systems is vitally important. The functioning of storm drains is also important since storm water runoff collects fecal bacteria from a variety of sources, including failing septic systems, pets, farm animals, birds and other wildlife and transports it long distances via streams, ditches, and the municipal street drain systems.

The design and location of septic systems is regulated by the Commonwealth's Department of Environmental Protection (DEP) by means of the Title V regulations (30 CMR 15.00) and the Town of Topsfield's Board of Health, which also monitors the installation of the system itself.

New DEP Title V regulations became effective in March 1995 and were again changed in 2004. The change in percolation rate (2004) and its impacts have been previously mentioned. Many aspects of these new regulations will directly impact sewage disposal systems in Topsfield and future development. The Topsfield Selectmen appointed a committee to review the impact of proposed change, which consisted of representatives from the TOSC, Conservation Commission, Board of Health, Planning Board and two non-affiliated volunteers. The Committee recommended in its final report issued on March 2005 that the percolation rates should not be changed as this might increase the nitrate effluent concentration. Since 2004, the Massachusetts Department of Environmental Protection has vetted and approved for use numerous alternative technologies that satisfactorily address the nitrogen treatment concerns that existed when the state regulation changed the maximum percolation rate for new construction from 30 mpi to 60 mpi. As a result of these advances in on-site sewage treatment, the BOH updated its supplemental regulations in 2012 and 2014 to align Topsfield's local regulations more closely with the new, state approved treatment options available for use.

3.E. Long-term Development Patterns

The Metropolitan Area Planning Council (MAPC) conducted a build-out analysis for the Town of Topsfield in 2001. The study was reviewed and revised by a local mapping committee to correct significant errors and apply conditions specific to Topsfield. The largest error originated from the Coolidge Estate where 550 acres were calculated for development when there was a conservation restriction placed on the property by the owner, Massachusetts Institute of Technology. When looking at the corrected data, from both the MAPC analysis and the local revisions, it was determined that Topsfield was nearing maximum buildout assuming current zoning, Title V, and wetlands regulations. This study became the basis for land use planning because it allowed Town boards to consider the location and character of the remaining land,

the potential impact of full development on Town services and the best uses for this land. The projections from the Buildout Analysis are summarized in the following table:

MAPC 2001 Buildout Analysis (a projection to the future)		
Demographic Projections	Year	Statistic
Number of Residents	1990	5,754
	2001	6,141
	MAPC Projection	8,771
	Topsfield Projection	8,099
Students (K-12)	1990	922
	2001	1,222
	MAPC Projection	1,560
	Topsfield Projection	
Residential Units	1990	1,910
	2001	2,144
	MAPC Projection	3,167
	Topsfield Projection	2,906
Water Use (gallons/day)	2001	505,000
	MAPC Projection	734,598
	Topsfield Projection	651,845
Buildout Impacts		
Additional Residents	Topsfield Projection	2,630
Additional Students (K-12)	Topsfield Projection	338
Additional Residential Units	Topsfield Projection	1,023
Additional Developable Land Area (acres)	Topsfield Projection	1,990
Additional Commercial/Industrial Buildable Floor Area (sq ft)	Topsfield Projection	431,491
Additional Water Demand at Buildout (gallons/day)		
• Residential	Topsfield Projection	197,236
• Commercial & Industrial	Topsfield Projection	32,362
Additional Solid Waste (tons/yr)	Topsfield Projection	1,349
Non-Recyclable waste	Topsfield Projection	959
Recyclable waste	Topsfield Projection	390
Additional Roadway at Build out (miles)	Topsfield Projection	20

The Topsfield Water Department notes the buildout projections have no impact on the amount of water the Town has available for growth as DEP, as discussed in Section 3A, herein is the entity that regulates how much water the Town is able to withdraw from its wells and Topsfield, along with other suppliers in the Ipswich River Basin, have had its authorized volumes of water reduced substantially in the past decade.

Full build-out as zoning allowed (i.e. single-family homes on parcels of one or two acres), would have a significant impact on demand for Town services, with alarming fiscal and resource management implications. The unbuilt parcels were located in residential zoning districts along

Route 1 and otherwise scattered throughout the town in a patchwork of developed, undeveloped, and permanently protected open space parcels. In addition, development of these parcels would in some instances further fragment open space, dividing wildlife habitats and diminishing the environmental benefit of open space tracts. In that the undeveloped land did not cluster in any sort of coherent way, these parcels did not lend themselves to the creation of a new zoning district dedicated to a particular use, such as mixed-use, commercial, or industrial uses. Of particular significance, the southern end of Route 1 with its stonewalls and large trees is the “gateway” to Topsfield - a cherished landscape identified as one of Topsfield’s heritage landscapes in the 2005 Topsfield Reconnaissance Report of the Essex County Landscape Inventory, Massachusetts Heritage Landscape Inventory Program. In addition, the remaining parcels were in large part marginally appropriate for development because of poor soils, wetlands, or steep slopes. In a number of cases, there had been efforts in the past to develop the land without success because of these constraints. Experience with similar properties had shown that alteration of such land led to significant problems with erosion and stormwater management.

Topsfield’s current zoning and resource management regulations reflect the Town’s response to these issues. Zoning Bylaws requiring two-acre single-family home development in the whole Town with commercial and retail uses allowed only in the small Business Village District and in two business districts on Route 1. The Town already had in place a strict General Wetlands Bylaw (Town of Topsfield Code, Chapter LXII). Board of Health regulations have traditionally been stricter than Title V relative to perc and flow rates, among others. The Elderly Housing District Bylaw (Topsfield Zoning Bylaw, Article III, 3.16), allowing multi-unit dwellings on parcels greater than 10 acres in residential districts by Special Permit and Town Meeting adoption of a new overlay district, allows 5 units per buildable acre with a maximum of 74 units. All other land in the parcel is protected from future development by terms of the Bylaw. From 2004 to 2008, new bylaws were adopted by Annual Town Meeting. A small new commercial district was established at the intersection of Route 1 and Ipswich Road. Mixed-use zoning was adopted for all four of Topsfield’s commercial districts, and uses in the Route 1 districts were expanded to include more retail uses.

These changes were made to address existing non-conforming commercial uses in the districts and to encourage diversity in housing stock and the creation of small-scale retail and commercial establishments. The Scenic Overlay District Bylaw (Topsfield Zoning Bylaw, Article XIV, 2005) establishes development standards for the Route 1 corridor from the Danvers town line to the Ipswich River. These are designed to protect and preserve the scenic and rural character of the southern entryway to the Town. The Storm Water Management and Erosion Control Bylaw (Town of Topsfield Code, Chapter LI, 2005), developed with the assistance of MAPC under a Technical Assistance Grant from EOEEA, establishes standards and controls for the alteration of over 7500 sq. ft. of land on existing or proposed slopes less than 15% and 4000 sq. ft. of land on existing or proposed slopes over 15%. This Bylaw ultimately protects water quality in the Town. A strict Water Conservation Bylaw brings Topsfield in line with DEP’s requirements relative to the Ipswich River Watershed. Most important, Topsfield’s Open Space Development Plan Bylaw (Topsfield Zoning Bylaw, Article IV, 4.09, 2007) was revised to better define the nature, future use and location of land to be set aside as open space. In particular, no more than 50% of the land can be already protected wetland or river-front area; the open

space must be “suitable for and protected and maintained for wildlife habitat, conservation, historic preservation (landscapes and/or structures), outdoor education, passive or active recreation, park purposes, agriculture, horticulture, forestry, or any combination of these uses;” and the open space must be in one contiguous parcel, and where possible, be contiguous with existing open space in abutting parcels so as to create large, unbroken, permanently protected areas.

All of these local land-use regulations allow for the development of property but provide protections for Topsfield’s character and environmental and scenic resources. Of note in this Plan, they are designed to maintain the quality of Topsfield’s existing open space and plan for the creation of future permanently protected open space that is continuous and will accrue to the public’s benefit

Section 4 – Environmental Inventory and Analysis

4.A. Geology, Soils and Topography

Topsfield’s topography is more varied than that of the average coastal town or the upland towns further inland. The range in elevations is from about 40 feet along the Ipswich River to 250 feet on the highest hills. It was from such heights during earlier times, when forests had been cleared for pasture land, that residents could see Ipswich Bay to the East, Mt. Wachusett to the West, the Monadnock range to the Northwest, and Boston to the South. Lowlands between the hills are relatively flat, and provided ideal sites for settlements and farms, first by indigenous peoples and later by colonists. This range of topographic features and land uses reflect pre-glacial, glacial and post-glacial geological history of the region.

The bedrock of eastern New England ranges in age from Precambrian to Upper Paleozoic and is situated on the Avalon tectonic block – a former volcanic island chain that collided with the eastern margin of North America roughly 350 million years ago. Portions of this tectonic block were subsequently severed from North America in the Mesozoic Period when the present day Atlantic Ocean was formed. The bedrock underlying Topsfield consists primarily of igneous rocks (two granodiorites), amphibolites of the Marlboro Formation, and metamorphosed sandstones and siltstones of the Newbury Formation. Outcrops of these units are rare in Topsfield but the most distinctive of these are the Topsfield Granodiorite (see below) and the Newbury Formation, which in places contains poorly, preserved marine arthropods (ostracods).

Most of the surface deposits we see in Town today are glacial in origin and were deposited approximately 15,000 years ago at the end of the Wisconsin Glacial Period, as the North American Ice Sheet melted and receded northward. As it did so, an unsorted mix of clay, silt, sand, cobbles and boulders, plucked from the underlying bedrock, were carried in the ice and deposited as till beneath or adjacent to the receding glacial front. Some of the more distinctive cobbles in the till, for example rusty orange cobbles with distinctive large, light blue quartz crystals, can be traced to scattered outcrops of a unique formation exposed near the Town center (Topsfield Granodiorite). Mostly however, the cobbles can’t be traced to a source area since an irregular veneer of till (called ground moraine) covers most of the underlying bedrock

in Topsfield. In many places throughout town, the glacier molded the till into streamlined hills called drumlins. Rea Farm, Witch, Pingree, Town, Great and Bradstreet Hills, to name a few of the larger ones, are drumlins elongate in the direction the glaciers last moved (northwest to southeast). Driving, running or bicycling up and down these hills in Topsfield is thrilling, and is almost unique on Route 1 from Maine to Georgia.

Just as important to the town are its lowland “plains,” occurring between the drumlins and occupied today by the Ipswich River and its tributaries. These areas, which cover approximately forty percent of Topsfield, are largely underlain by well-sorted, medium grained sand, 20 to 90 feet thick. Known as outwash plains, they were deposited by meltwater from the decaying ice sheet. Historically, these areas were settled first since foundations built on them were easy to excavate, soils derived from them are organic rich and rock free, and yields from shallow (water table) aquifers within them are prolific. Even today, Topsfield’s entire public water supply comes from shallow wells completed in such deposits. Swampy areas adjacent to most major streams in town lie atop the outwash plains, and are composed of post-glacial, spongy, organic matter and silt, generally less than five feet thick.

Less abundant, but related to the outwash sand plains, are poorly-sorted, silty to sandy cobble gravel deposits. These occur either as (kame) terraces on higher ground around the margins of drumlins, or as sinuous ridges (eskers) formed by melt-water flowing through a former ice tunnel near the margin of a decaying ice sheet. Evidence of several eskers can be found in Topsfield, including a classic one in the Massachusetts Audubon Society’s Ipswich River Wildlife Sanctuary and another along Colrain Road. Kames and eskers were mined in the past for their gravel, but are today protected from development by zoning laws.

Overlying all the glacial deposits are the soils derived from them. As shown in the Soils and Geologic Resources Map 4, approximately 80% of Topsfield’s soils are grouped into two main associations. Soils of the Hinckley-Windsor-Merrimac association form on the lowland outwash plains that are characteristically deep, sandy to loamy, and excessively to somewhat excessively drained. Areas covered by these soil types are generally suitable for residential development and farming, except near streams and rivers where the water table is high in the winter and spring. Soils of the Paxton-Woodbridge-Montauk association form on compact glacial till, which makes up Topsfield’s drumlins and other upland areas. The soils of this association are deep, but less well-drained than those of the outwash plains. They are well suited to residential development, providing that careful sewage disposal facilities are engineered to overcome a slowly permeable clay-rich subsurface layer (fragipan). Historically, pastures and agricultural fields developed on these soils are crisscrossed by stone walls, which were sourced by cobbles that “grew” from the glacial till below.

The remaining soils in Topsfield are classified in the Canton-Charlton-Sutton association. These occur mainly along the western edge of town. They have many of the same drainage qualities as the Paxton-Woodbridge-Montauk association, except they form over looser till and bedrock that consequently deliver more rocks to the surface layer.

In summary, the soils and glacial landscapes of Topsfield should be considered nothing but variable. Within any given soil association, one can find many different soil types, each with

slightly different drainage and engineering qualities. Future development should recognize these differences, particularly in regard to sighting septic system absorption fields and/or high environmental risk businesses where drainage from them could readily contaminate our drinking water supplies contained in shallow unconfined aquifers.

4.B. Landscape Character

As one drives through Topsfield, the combined views of rolling hilltops, meadows, meandering brooks, marshes, fields, and forests are remarkable, making the Town's visual character one of its most priceless assets. Topsfield's past development has enabled it to maintain its rural character. However, there are currently several large tracts of land throughout the Town that are at risk for future development. Development, if not carefully planned and monitored, will severely impact the visual and environmental character of the Town. The scenic vistas of Route 1 are now being challenged with development (See Map 7 and Appendix B).

The Ipswich River has mostly been left to flow through Topsfield in its natural state. It provides natural habitat for a wide range of wildlife and plant life, as well as recreational opportunities such as canoeing/kayaking, and fishing. Three other brooks are stocked with trout by the state, creating further fishing opportunities. Topsfield has created several recreational trails, including the 3.9 mile Topsfield Linear Common rail trail, the trails at Donibristle Reservation, and the public trail at English Commons, for walking, jogging, biking, and horseback riding. A discontinued landfill has been capped and developed into the Pye Brook Park recreational area, that include athletic fields, equestrian event area, disc golf course, and a wooded recreational trail that runs along Pye Brook Marsh.

4.C. Water Resources

4.C.1 Recreational Uses

The Ipswich River is navigable throughout its course in the Town. Activities include swimming, fishing, kayaking, canoeing, rafting, plant and wildlife observation and photography. Topsfield includes five public landings for non-motorized boat access to the Ipswich River: Rowley Bridge Road, Salem Road, Route 97 (High Street), Asbury Street, and Ipswich Road/Willowdale Meadow (near the Ipswich town boundary). A paddling map identifying the location of these landings can be found online at www.ipswichriver.org.

Across the road from the Route 97 (High Street) boat access, a parking area for nine (9) vehicles was just completed allowing river users to safely remove watercraft from their vehicles. The remaining four boat accesses in Topsfield provide only road shoulder parking and only in a few locations. The Topsfield Fairgrounds also has excellent river access.

4.C.2. Surface Water

There are two principal sources of surface water in Topsfield: the Ipswich River (and several of its tributaries, namely, Fish, Mile, Pye, and Howlett Brooks) and Hood Pond (See Maps 4, 6A and 6B). Topsfield is one of several Towns on the North Shore that share the Ipswich River as a regional recreation source. The Ipswich River Watershed Association (IRWA) oversees protection and management of the Ipswich River, as well as its underlying aquifer.

.C.3. Aquifer Recharge Areas

As stated in Section 3, Part D, Topsfield does not use surface water bodies as a direct drinking water supply. However, these bodies are linked to the quality and availability of the groundwater supply. The public water supply system uses an unconfined aquifer consisting of two well fields. Due to Homeland Security guidelines from the federal government, the well field locations can no longer be shown on maps.

4.C.4. Flood Hazard Areas

Mean annual precipitation is 43 inches. Snowfall depths, which vary widely from year to year depending on winter storm tracks generally range from 30 to 70 inches per year. In the Boston area, the average snowfall depth per year is 50 inches; in Topsfield, the average depth is 55 inches.

Major storms and subsequent floods have occurred in nearly every month of the year. Large storms that affect the coastal region of Massachusetts, including Topsfield, are spring rainstorms, summer thunderstorms, fall hurricanes, and winter northeasters. When these storms hit, major flooding can occur throughout Town causing property damage and erosion

while helping to recharge existing floodplain areas (See Maps 6A and 6B). The 2006 “Mother’s Day Flood” caused the loss of two lives, and extensive property damage within the town of Topsfield. Three substantial rain events in the spring of 2010 again caused extensive flooding and property damage within the Town of Topsfield.

The Ipswich River and its tributaries run through numerous wetlands, marshes, and swamps that have major resource values. Together these areas collect, store, and filter precipitation and recharge groundwater that is the Town’s only source of potable water. In addition, they provide habitat and food for numerous indigenous and transient species of animals that depend on these resources.

In recognition of this the Town adopted a local General Wetlands Bylaw (GWB) that extends protection over and beyond the resources already protected under the provisions of G.L. c.131, §40 and CMR 310 10:00 promulgated pursuant to the statute. These protections include vernal pools that provide spawning areas for frogs, salamanders, and fairy shrimp of which some are rare and endangered species. The Town counts a number of such vernal pools as certified under the criteria formulated and administered by the Natural Heritage and Endangered Species Program. It also protects as resource areas intermittent streams that have a substantial effect on the recharge of storm-water run-off in Town. These streams channel surface run-off from poorly drained areas at high elevations to wetlands and marshes at lower elevations. When these are disturbed or disrupted by development, the consequences can include flooded basements and failed septic systems. Additionally, the Town’s GWB lists by name a number of perennial streams, all tributaries of the Ipswich River, that are a priori protected under the State’s Rivers Protection Act and CMR 310-10.58.

The GWB also provides protection of land subject to flooding inclusive of the 100-year floodplain identified in the Federal Insurance Rate Map (FIRM) pursuant to 310 CMR 10.57 and the Town’s own Floodplain Zoning District that is based on the FIRM. These areas that constitute the Ipswich River floodplain and those of its tributaries in Town provide an essential surface water recharge mechanism that provides well-water for the Town’s residents and also maintains groundwater elevations that are required to ensure water in the stream channels of these tributaries and the Ipswich River throughout the year. Moreover, the protection extends to vernal pools located in these areas.

The Town also provides several layers of protection from development in the riverbank areas. The Town’s Zoning Bylaws establish a 200 foot Ipswich River Bank Zoning District in which only a very limited number of activities such as farming, passive recreation, and conservation projects may be conducted. The GWB also incorporates by reference 310 CMR10.58 that regulates permissible activities in the riverbank areas pursuant to the “Rivers Act” - Chapter 258 of the Acts of 1996. This protection of course is extended to all perennial streams in Town.

The Town provides outreach and education on water conservation and water quality issues through its membership in the Greenscapes North Shore Coalition (www.greenscapes.org). In 2018, there are 19 communities in the coalition, along with four non-profit partners: Ipswich River Watershed Association, Salem Sound Coastwatch, 8 Towns & the Great Marsh, and Merrimack River Watershed Council. Topsfield has been a Greenscapes member since 2007.

The mission of the Greenscapes Coalition is “to promote and protect beautiful landscapes for clean and plentiful water and provide a unified voice and consistent environmental outreach and education to our Greenscapes Municipal Partners, their residents, institutions and businesses.”

In particular, the Ipswich River Watershed Association’s RiverWatch Program has 32 monitoring sites, including 6 sites in Topsfield. In addition to oxygen levels, the program now collects data on conductivity (salt levels) and sample invertebrates from Howlett Brook (and 8 other sites in the watershed). Volunteers have been removing the invasive water chestnut from Hood Pond and monitor the pond for other invasive weeds. IRWA is also seeking to re-establish and invigorate the Topsfield Stream Team.

4.D. Vegetation

Much of the protected land in Town is forested. Willowdale State Forest and the Town Forest are exclusively forests while Bradley Palmer State Park is mostly forest in the portion that lies within Topsfield. All three areas contain established networks of trails. The Massachusetts Audubon lands contain fields, but are mostly comprised of wetlands, river, forested wetlands and forested uplands. The Salem and Beverly Water Board land is predominantly wetlands. With the exception of the Salem and Beverly Water Board land, these protected lands are used frequently for recreation, including: walking, hiking, and cross-country skiing. With the exception of the Audubon land, they are also used for running, biking and horseback riding. The unprotected lands range from river, wetlands, forests, and the many fields of the former MIT/Coolidge property. While the MIT/Coolidge property has conservation restrictions, some of the current owners have their lands posted.

The major vegetative cover type in Topsfield is woodland. White pine is the predominant softwood, while maple is the predominate hardwood, with lesser volumes of white and red oaks. The rare River Bulrush is found in Topsfield, while a Silver Maple floodplain forest is located on the Topsfield Fairgrounds along the Ipswich River, and a stand of white cedar, unique to the Atlantic seaboard, can be found near Hood Pond.

Tree planning and forestry issues have become a concern to the Town. Many of the trees on the Town’s scenic roads and main streets need to be replaced due to age and disease. Proper forestry practices are needed to maintain and protect the Town's open space from over growth and invasive plant life.

4.E. Agriculture

There is no land classified as “prime” farmland in Topsfield at present. Several Topsfield residents, with lands totaling approximately 1,147 acres, take advantage of the protection offered under Ch. 61, 61A, 61B and Ch. 780 of the Acts of 1977.

Agricultural land contributes significantly to Topsfield’s open space and rural character. Topsfield has a number of properties listed as Chapter 61A and other smaller properties on

which agricultural activities are conducted. Essentially passive agricultural uses are found in some of the tree farms located within the Town. Active farming is represented by Valley View Farm, Holiday Tree Farm, Connemara House Farm, Red Pine Tree Farm, Natural Way Farm, Alfalfa Farm and Greywood Farm. These farms are dedicated to a variety of agricultural and horticultural operations, including cheese, honey and maple syrup operations, apple orchards, berries, organic vegetables, a winery and Christmas trees. Richardson's Dairy, based in Middleton, utilized Topsfield land to grow corn that supports its herds of dairy cattle. That land was recently sold to the Essex County Agricultural Society (Topsfield Fair) to be used as a parking area during the Fair days. Many large open properties produce hay that is cut, baled and distributed by local farmers.

On a smaller scale, a number of local residents engage in the production of agricultural products, including eggs, honey, maple syrup, and organic vegetables that are sold at farmers' markets and through distributors. Valley View Farm partners with First Light Farm in Hamilton as a CSA collection point. The Agricultural Commission, Topsfield Garden Club, and Historical Society promote agricultural history and the grow-local movement through school programs, participation in the Topsfield Fair and other educational activities. The Essex Agricultural Society has partnered with Northeast Harvest to promote locally grown products.

Topsfield's combination of extensive forests and wetlands provide rich habitat for the vegetation found in our area. See Appendix C for the vegetation inventory.

4.F. Fisheries and Wildlife

Open lands in Topsfield play an integral part in creating corridors that are important for wildlife and for recreation. Some of these corridors, such as those involving the Audubon, are more useful to birds and animals, while others are better suited to human recreation. Nonetheless, that these corridors exist at all is a true asset for the Town and further strengthening of these corridors should be encouraged.

The Ipswich River provides the most complete watershed corridor. The largest and most complete protected land corridors lie east of Route 1 and north of Route 97 joining Willowdale State Forest, Bradley Palmer State Park and the Massachusetts Audubon Society's Wildlife Sanctuary. Willowdale continues from Topsfield into Ipswich and lies just across Ipswich Road from Bradley Palmer, which extends into Hamilton and Ipswich. Linkage for pedestrians and horses is made possible by a bridge over the river (the road must still be crossed). Bradley Palmer and the Audubon are separated only by Asbury Street and the strip of land between the street and the river and connected by a path and a bridge on private property. The Sanctuary's land continues into Wenham and Hamilton. The abandoned B&M rail corridor has been transformed into a public rail trail that runs about 3.9 miles through Topsfield. The southern half of the trail crosses the Ipswich River and also intersects a path which provides access to the Salem and Beverly Water Board's canal and new bridge over that canal. The canal draws water from the River and then runs through a section of the Audubon Sanctuary in Wenham stretching almost 2 miles to a pumping station which discharges water into Wenham Lake. Wenham Lake is part of the Salem and Beverly water supply. Additional wildlife and pedestrian corridors exist around Hood Pond, the Town Forest and Pye Brook Community Park in the

Town's northwest quadrant, and in the southwest quadrant, on Donibristle Reservation, the public trail at English Commons, the Salem and Beverly Water Board land, and on adjoining conservation restricted lands.

Topsfield's extensive wetlands, ponds and streams provide habitat for numerous waterfowl, otter, muskrat, beaver, as well as turtles, frogs, mink, and other amphibian life. Several species of fish are found in Hood Pond and the Ipswich River. Woodland and meadows abound with migratory and resident birds.

Migratory river herring, American eel, and sea lamprey are still found in the Ipswich River above the Willowdale Dam near the Ipswich/Topsfield boundary. Historically, migratory fish travelled from the ocean, up the Ipswich River, to waters in Topsfield, including Hood Pond. Migratory river herring, American eel, and sea lamprey are still found in the Ipswich River above the Willowdale Dam near the Ipswich-Topsfield boundary.

The current fish community in the Ipswich River is dominated by generalist species that can tolerate warm water and ponded conditions, as dams have changed habitat available in the river. Three generalist species are redbfin pickerel, American eel and pumpkinseed they make up almost 70% of the fish population. Other species currently found in the river include bluegill, chain pickerel, redbreast sunfish, and small numbers of creek chubsucker, fallfish, yellow perch, white sucker, largemouth bass, golden shiner, yellow bullhead, sea lamprey, swamp darter, green sunfish, brown bullhead, brown trout, brook trout (<.1%), rainbow trout and black crappie. [More info here: <https://www.ipswichriver.org/about-the-river/fun-facts-about-the-river/#plants>]

Topsfield's mammal population is typical of other Essex County towns with deer, rabbit, skunk, fox, raccoon, fisher, woodchuck, squirrel, mink, coyote, and mice being most prominent. Three rare reptiles and amphibians also reside in Topsfield: the Blanding's Turtle, the Blue Spotted Salamander, and the Eastern Spadefoot.

The Ipswich River Wildlife Sanctuary, which runs through land owned by the Massachusetts Audubon Society, as well as Bradley Palmer State Park and Willowdale State Forest, which are owned by the Commonwealth. Other public and privately owned open space provides both permanent and temporary protection for wildlife habitats in Topsfield.

Rare and endangered species are listed on the table below:

Group	Scientific Name	Common Name	State Rank	Federal Rank
Fish	Notropis bifrenatus	Bridle Shiner	SC	None
Amphibians	Ambystoma laterale	Blue-Spotted Salamander	SC	None
	Scaphiopus holbrookii	Eastern Spadefoot	T	None
Reptile	Terrapene carolina	Eastern Box Turtle	SC	None

	<i>Glyptemys insculpta</i>	Wood Turtle	SC	None
	<i>Emydoidea blandingii</i>	Blanding's Turtle	T	None
Birds	<i>Accipiter Striatus</i>	Sharp-Shinned Hawk	SC	None
	<i>Gallinula chloropus</i>	Common Moorhen	SC	None
	<i>Tyto alba</i>	Barn Owl	SC	None
	<i>Vermivora chrysoptera</i>	Golden-Winged Warbler	E	None
	<i>Podilymbus podiceps</i>	Pied-billed Grebe	E	None
	<i>Botaurus lentiginosus</i>	American Bittern	E	None
	<i>Circus cyaneus</i>	Northern Harrier	T	None
	<i>Rallus elegans</i>	King Rail	T	None
Mussels	<i>Ligumia nasuta</i>	Eastern Pondmussel	SC	None
Insects	<i>Anax longipes</i>	Comet Darner	SC	None
	<i>Somatochlora kennedyi</i>	Kennedy's Emerald	E	None
	<i>Somatochlora linearis</i>	Mocha Emerald	SC	None
	<i>Williamsonia litneri</i>	Ringed Boghaunter	E	None
	<i>Enallagma laterale</i>	New England Bluet	SC	None
Plants	<i>Sagittaria subulata</i>	River Arrowhead	E	None
	<i>Liatrus scariosa</i>	New England Blazing Star	SC	None
	<i>Symphoricarpos albus</i>	Snowberry	E	None
	<i>Bolboschoenus fluviatilis</i>	River Bulrush	SC	None
	<i>Eriophorum glacile</i>	Slender Cottongrass	T	None
	<i>Galium boreale</i>	Northern Bedstraw	E	None

4.G. Scenic Resources and Unique Environments

Topsfield's visual character is a reflection of its agricultural past. Since the decline of the region's agricultural economy, open farmland has reverted back to forest. Open space, forests, meadows, rivers, and wetlands contain many interrelated, intangible benefits to the visual character of Topsfield and to the public in general. The aesthetic, cultural, historic, ecological,

and recreational value that these resources contribute to the community's rural character (See Map 5).

The Scenic Landscape Inventory published by the Department of Environmental Management (DEM) shows that almost half of the Town of Topsfield falls into the area designated as "The Ipswich River Unit (A3)", which is described in the inventory as "extending from the Rowley River on the north inland to Topsfield in the west and south to include an area along the Miles River in Hamilton". To be more specific relative to the Town of Topsfield, this area encompasses all of Topsfield south of the Topsfield Fairgrounds on Route 1 and east thereof to the Wenham town line; almost all of Topsfield south of the Fairgrounds on Route 1 and west thereof to the Boxford town line; and including approximately two thirds of all land north of the Fairgrounds on Route 1 and east thereof (including Bradley Palmer State Park), to the Ipswich and Hamilton town lines. The "Ipswich River Unit" is designated as "Class A - Distinctive", the highest rating an area can receive. As stated in the Scenic Landscape Inventory, the "Ipswich River Unit (A3)", in which a significant portion of Topsfield is located, is "probably the finest coastal scenery in the Commonwealth as well as outstanding farm and river scenery land". (See the Inventory of Lands map in Section 5). As previously mentioned a parcel of Chapter land for sale was purchased by the Essex Agricultural to be used as a parking area.

In addition to the State Scenic Landscape Inventory, the Historical Commission applied for and received assistance from the Essex National Heritage Commission and the Department of Conservation and Recreation to conduct the Topsfield Reconnaissance Report of the Essex County Landscape Inventory. This report identifies the heritage landscapes in Topsfield and makes recommendations as to strategies for preserving them. The Scenic Overlay zoning district that establishes development guidelines for the southern portion of Route 1 was one result of this inventory.

The National Register of Historic Places is the official federal list of districts, sites, buildings, structures and objects that have been determined significant in American history, architecture, archaeology, engineering and culture. All National Register properties are automatically listed in the State Register of Historic Places. Topsfield's National Register (NR) program began in 1966 with the listing of the Reverend Joseph Capen House (generally referred to as the Parson Capen House) on the National Register and as a National Historic Landmark. In 1976, the Topsfield Town Common Historic District was established. It includes 131 acres and 10 buildings representing the major periods of early American architecture. A second National Register District, added in 2005, is the River Road-Cross Street District that encompasses 4500 acres, 39 buildings, and 4 structures. Pending listing in the National Register is a Multiple Property Context Submission, titled "Historic Farms and Rural Retreats of Topsfield". Also, listed in the State Register are those properties protected by a preservation restriction, drawn up in accordance with G. L. c. 183 §§ 31-33. A preservation restriction (PR) runs with the deed and is one of the strongest preservation strategies available. All properties which have PRs filed under the state statute are automatically listed in the State Register. The Topsfield Town Hall, which is in the Common National Register district, is the only Topsfield property for which there is a PR.

Local historic districts, which are administered at the local level, are special areas within a community where the distinctive characteristics of buildings and places are preserved and

protected by a local historic district commission. In 1974, Topsfield adopted the Topsfield Common Historic District which runs along Main and High Streets and contains 37 properties. The boundaries of the National Register district and the local historic district are not identical. All local historic district properties are automatically listed in the State Register of Historic Places.

The Topsfield Historical Commission maintains a list of Historically Significant Structures that are subject to the Demolition Delay Bylaw. The list and bylaws are available at <https://www.topsfield-ma.gov/historical-commission/pages/documents-and-forms> A number of these structures are also listed in the National Register of Historic Places. River Road-Cross Street was added to the National Register in 2004 as a Historic District.

Unusual geological features in Topsfield include five or six large drumlins traversed by Route 1, an excellent example of an esker at the Ipswich River Audubon Sanctuary, and several outcrops of the Topsfield Granodiorite. Details about these features are discussed in detail in Section 4A.

4.H. Environmental Challenges

4.H.1 Sewage Disposal Systems

The design and location of septic systems is regulated by the Commonwealth's Department of Environmental Protection by means of the Title V regulations and the Town of Topsfield's Board of Health, which also monitors the installation of the system itself. DEP Title V regulations became effective in March 1995, and were updated in 2002. The change in percolation rate (2002) and its impacts have been previously mentioned. Many aspects of these new regulations will directly impact sewage disposal systems in Topsfield and future development. The Topsfield Selectmen appointed a committee to review the impact of proposed change, which consisted of representatives from TOSP, Conservation, Commission, Board of Health, Planning Board and two non-affiliated volunteers. The committee recommended the percolation rates should not be changed as it might increase the nitrate effluent concentration. The Board of Health updated its supplemental regulations to Title V in 2012 and 2014. The updates included changes that the Committee formed in 2004 to review BOH regulations recommended against making. The BOH voted to amend the Town regulations to align with advances in the science of on-site sewage treatment over the past decade. The Massachusetts Department of Environmental Protection has vetted and approved for use numerous alternative technologies that satisfactorily address the nitrogen treatment concerns that existed when the state regulation increased the maximum allowed percolation rate to 60 mpi for new construction. The maximum allowable percolation rate was and is 90 mpi for the repair of an existing septic system.

4.H.2. Hazards to Town Water

The current Massachusetts percolation rate is 60 minutes/inch. Topsfield is more stringent at 30 minutes/inch. Relaxing the septic percolation rate to 60 minutes/inch from the current 30 minutes/inch may put groundwater at risk. The Board of Health Review Committee issued a final report in March 2005, with eight findings:

a. It is perfectly feasible to construct, operate, and maintain on-site disposal systems in 60 minutes/inch soils. This was not clear at the outset in that such systems rely to a substantial part on trans-vaporation of groundwater to function properly. New England winters are sufficiently severe to substantially limit such action. The investigations of OSDS technology in Nova Scotia by Mooers and Waller have provided convincing evidence in favor of these findings.

b. Nitrate concentrations in drinking water are a public health hazard. That is the reason for the 10 mg/L (ppm) limit of nitrates in potable water set by the federal EPA.

c. Nitrate concentrations in groundwater from OSDS installations in 60 minutes/inch soils are substantially rainfall recharge driven. The results of the Bauman and Schafer model indicate that one and two acre lots in 60 minutes/inch soils cause nitrate concentrations in groundwater from these developments to be at or in excess of the federal EPA limit for some or all of the time during the year.

d. Almost half (45%) of the total land that can be developed in Town is located on soils that have percolation rates in excess of the current Board of Health limit.

e. Groundwater nitrate concentrations will exceed the EPA limit if the available inventory of undeveloped land with a low percolation rate identified in task (2) is developed in accordance with the present zoning rules and the higher Title V percolation rate limit.

f. Elderly Housing Districts (EHD) in their present form represent a more intense land use than the current “by right” zoning unless the EHD also encompasses sufficient undeveloped land to limit the land use to an equivalent of at least one acre/OSDS.

4.H.3. Landfills

Topsfield had a municipal landfill site off Haverhill Road that was capped in the year 2000 and turned into a recreational area of ballparks and nature trails as the former landfill is located in the headwaters of Pye Brook. The Town spends approximately \$40,000 each year to retain an environmental engineering firm to monitor leachates and volatile emissions inclusive of the burning off of methane generated on-site. To date no leachates have been detected, and the volatile pollutants are being burned as they are generated.

4.H.4. Hazardous Waste Sites

There have been 65 reported spills in Town. All but two of them (234 and 230 Boston Street) have an NFA (No Further Action) designations, RAO (Response Action Outcome) class A1 or A2 statement meaning that the contamination has been cleaned up to either background levels or

a level which poses no restrictions on use, respectively. Since 2010 there have been 6 minor contaminations reported of which two were electrical transformer leaks.

See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx>

4.H.5. Chronic Flooding

Topsfield has several sources of flooding including the Ipswich River, Pye Brook, Howlett Brook, Hobbs Brook, Mile Brook, School Brook and Fish Brook. All of these are perennial streams protected under the provisions of the Mass Rivers Protection Act and regulations enacted thereunder (310 CMR 10.58). Many flooding concerns are often attributed to increases in beaver populations. The Town is aware of the laws and regulations concerning beaver activity control and strives to put into effect such solutions as beaver deceivers in addition to periodic cleaning and maintenance of existing water control structures such as culverts, bridges, and dams in the public ways. The Board of Health has authorized the trapping of beavers in instances where no other remedy proved feasible.

Topsfield has several sources of flooding including the Ipswich River, Pye Brook, Howlett Culverts are another contributing factor to flooding concerns. Many of the existing culverts were installed at a time when the population of Town was much smaller and annual rainfall as well was less. These culverts today are being surcharged during heavy rainstorms and thus contribute to the flooding problem. Although replacing culverts with those that are properly designed and meet the Mass Rivers and Stream Crossing Standards is important, it is an expensive and time consuming process. Thus, the solution to the Town's existing flooding problems must be seen in a coordinated effort to deal with water control structures throughout the Ipswich River watershed basin. It is important that the Town work to maintain lands in their natural open state as well as ensure any new development does not exacerbate existing flood concerns.

As towns like Topsfield become more developed, waterways and riverbanks have been dotted with more infrastructure and aquatic barriers: human-made structures such as culverts and dams that may impede their flow. Stream continuity has not often been considered in the design and construction of these structures, and many crossings are barriers to fish and wildlife. Even crossings that were not barriers when originally constructed may become barriers because of stream erosion, mechanical breakdown, or changes in stream channel shape.

New England has experienced more frequent floods in recent years, increasing the risk of failure of aging and/or undersized structures. The extreme damage caused by recent large storms, including the Mother's Day storm (2006), Hurricane Irene (2011), and Hurricane Sandy (2012) has highlighted these risks. These weather events have also drawn attention to the importance of ecosystem services, including flood attenuation, provided by naturally functioning aquatic systems. The presence of aquatic barriers limits the ability of the system to serve these functions.

Fortunately, we have learned to design stream crossings that allow wildlife unrestricted access to a watershed, maintain natural stream conditions, and protect roads and property from the damaging effects of floods. There are many resources and partners available to help

communities like Topsfield to repair and replace these aquatic barriers for the benefit of wildlife and the community.

Since the enactment of the state ban on beaver traps, the Town has experienced some flooding events to which beaver activity has contributed. The areas flooded have been primarily in the watershed areas of tributaries to the Ipswich River as well as the latter the area of the Essex County Fairgrounds. The streams include Pye Brook, Howlett Brook, Hobbs Brook, Mile Brook, and Fish Brook. All of these are perennial streams protected under the provisions of the Mass Rivers Act and regulations enacted thereunder (310CMR-10.58). The Town is aware of the DRC regulations concerning beaver activity control and strives to put into effect such solutions as beaver deceivers in addition to periodic cleaning and maintenance of existing water control structures such as culverts, bridges, and dams in the public ways. The Board of Health has authorized the trapping of beavers to protect public health and safety, where flooding caused by beaver dams could adversely affect the town water supply or travel on public roads.

As towns like Topsfield have become more developed, waterways and riverbanks have been dotted with more infrastructure and more aquatic barriers. The term “aquatic barriers” refers to human-made structures such as culverts and dams that may impede the flow of rivers and other waterways. Stream continuity has not often been considered in the design and construction of these culverts and bridges. Many crossings are barriers to fish and wildlife. Even crossings that were not barriers when originally constructed may now be barriers because of stream erosion, mechanical breakdown of the crossings, or changes in the upstream or downstream channel shape.

4.H.6. Erosion & Sedimentation

Many of the privately-held potentially developable properties in Topsfield consist of lands that have higher erosion potentials due to topography and/or soil conditions and typically contain or are adjacent to water resources. The Town has adopted a number of bylaws and regulations that are aimed at controlling and minimizing the adverse effects of erosion and sedimentation. Topsfield has a Stormwater Management and Erosion Control Bylaw (Ch. LI of the General Town Bylaws) most recently revised in 2015. This bylaw authorizes the Planning Board to control by permit stormwater run-off from any activity affecting any area in excess of 7,500 square feet at a slope of less than 15% and 4,000 square feet in areas where that slope is between 15% and 25%. Performance standards for erosion control are consistent with the Mass Stormwater Management Standards as amended from time to time. The bylaw seeks to establish minimum requirements and procedures to control the adverse effects of stormwater runoff and nonpoint source pollution by requiring that runoff is not greater in volume or rate and to prevent soil erosion and sedimentation. The Conservation Commission exercises stormwater erosion control in and contiguous to the resource areas under its jurisdiction both under the Wetlands Protection Act and the Topsfield General Wetlands Bylaw (Ch. LXII of the General Town Bylaws). Finally, the Town has a Soil Removal Bylaw (Ch. XLIX of the General Town Bylaws) which is under the jurisdiction of the Soil Removal Board and requires a permit for removing soil from any lot in excess of that required to construct a foundation or other allowable structure for which a building permit has been obtained, except in a subdivision

wherein the Planning Board has oversight. The Soil Removal Bylaw requires varying dimension buffer strips to be left in their natural state, that all final banks be graded to a slope no steeper than one-foot vertical to two-feet horizontal, and that all denuded areas be spread with topsoil to a minimum depth of six inches and seeded with appropriately specified vegetative seed mix.

Both the Planning Board and the Conservation Commission have adopted guidelines to encourage Low Intensity Development (LID) plans. Map #3, the Soil Map, shows areas of poorly drained soils. Most of the more recent development projects in Town have included elements of the LID approach including recharge swales and rain-gardens.

4.H.7. Forestry Issues

The forests located in Topsfield include Willowdale State Forest, Bradley Palmer State Park, and the Town Forest located near Hood's Pond. These are conservation areas in which no logging or commercial wood harvesting activity is permitted. There is a Christmas tree farm on Ipswich Road that grows trees for subscribers. All other timber stands are located in either conservation land or otherwise restricted areas that permit only logging for the purpose of maintaining the health of the forest.

Section 5 – Inventory of Lands of Conservation and Recreation Interest

Topsfield has successfully intermixed suburban development with rural character but the town cannot take its existing open space for granted. As endorsed by the Open Space Survey the community needs to continue to be proactive in controlling future growth and development.

The open lands within Topsfield have significance beyond the Town's lines. With Bradley Palmer State Park and Willowdale State Forest crossing into adjoining towns, with considerable regional interest in the protection of surface water quality for the Ipswich River watershed, and with the potential and existing linkage of trails and wildlife corridors across the region, the value of these open space and recreational assets for Topsfield, and the entire region, increases. Hence, Section 8, Goals A and B are to preserve significant land for open space to help maintain Topsfield's visual quality and rural character with the objectives being: to identify land considered most significant to the Town's character, to work with the Conservation Commission, Essex County Greenbelt, the Massachusetts Audubon Society, the Department of Environmental Protection, and the Water Department to identify land to be protected, and to target lands adjacent to existing conservation lands, parks, the Ipswich River Watershed, and Route 1 for preservation (See Map 7).

The inventory lists parcels of land in Topsfield which are: owned by government entities; owned by conservation organizations; protected by conservation restrictions; classified for tax purposes as forest, agricultural, or recreational land under G.L. chapters 61, 61A, and 61B, respectively.

As shown in Map 10 Topsfield's recreational facilities are well dispersed considering the population distribution. Environmental Justice (EJ) 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. EJ is the equal protection and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies and the equitable distribution of environmental benefits. As previously mentioned Topsfield does not meet the environmental justice criteria since the minority population is so small.

Recreational land and activities in Topsfield include support by: the Town of Topsfield, the State, and private organizations. The Town's component includes properties maintained by the Park and Cemetery Department and activities organized by the Town's Recreation Committee and various volunteer organizations. Funding for the Town's recreational land and activities comes from tax dollars, user fees, donations and grants. Following is a list of the major facilities:

- Bradley Palmer State Park and Willowdale State Forest, both are under the jurisdiction of the Massachusetts Department of Conservation and Recreation with State ownership of land, which confers a high degree of protection. Both contain miles of trails for walking, hiking, biking, horseback riding, snowshoeing and cross-country skiing, along with opportunities for canoeing.

- Ipswich River Wildlife Sanctuary, owned and managed by the Massachusetts Audubon Society, for a nominal fee, provides access to an additional 10 miles of walking trails and opportunities for canoeing.
- The all-volunteer Topsfield Rail Trail Committee is well along in the process of transforming the abandoned 3.9 mile rail corridor into a recreational path known as the Topsfield Linear Common. At the end of 2010 2.3 miles have been completed. Funds for this project, as well as continuing maintenance, have been raised through grants (including those from the Rivers and Trails program from the Dept. of Conservation and Recreation, gifts and the generosity of volunteer labor including senior interns from the Masconomet Regional high school. The remaining 1.6 miles has a grass surface with a well-worn track in the center. The Town is waiting for a lease from National Grid, the owner, to finish the trail with a stone dust surface.
- Donibristle Reservation, owned by Essex County Greenbelt, combined with the connected public trail at English Commons, provide more than 3 miles of trails for walking, running, horseback riding, snow shoeing, and cross-country skiing.

The Topsfield Park and Cemetery Department oversees the management and maintenance of:

- Klock Park (located between North Street and Route 1, with access from North Street). Included are four soccer and two baseball fields.
- Pye Brook Community Park located between Bare Hill Road and Route 97/Haverhill Road, with access from Haverhill Road is approximately 70 acres in size and includes:
 - Playing fields: multi-use fields for small-sided soccer, baseball and football. The developed field area is approximately 25 acres
 - Wildlife Path almost two miles in length. This path, which connects with the Rail Trail, was built by, and maintained by volunteers at no cost to the Town, is almost totally in the woods, cannot be seen from the playing fields, is quiet, and borders marshes and ponds for about half its length. The path is used for educational purposes, walking, trail running and wildlife viewing.
 - Picnic area with tables designed for handicapped use.
 - 18 hole disc golf course (funded by a private donation).
 - Horse show facility (funded by private donations).
- Emerson Park with three baseball fields. Emerson Field is owned by the Congregational Church of Topsfield and leased to the Town on an annual basis.
- Normandy Row Park – practice field.
- Town Common, large grassy area that hosts the Topsfield Historical Society's annual Strawberry Festival, a summer band concert series hosted by the Topsfield Recreation Committee, and many other events.

- Proctor School and adjacent Town property with two playgrounds, two tennis courts, a basketball court and two baseball fields. The newly formed Topsfield Playground Committee has replaced an aging playground at Proctor School and the Grove Street “tot lot” playground. This area is accessed from the Topsfield Linear Common recreational trail. The Rail Trail Committee removes snow after storms to allow student safe access to the school.
- Hood Pond. A separate group of volunteers, the Topsfield Beach Association, maintains a safe swimming area for residents of Topsfield and surrounding towns at Hood Pond. There is a family membership fee that pays for the maintenance of docks, restroom facilities and lifeguards. Swimming lessons are offered for a fee throughout the summer.
- Steward School. Two tennis courts and various recreational facilities.
- Wheatland Hill, a popular town owned sledding location.

Team-oriented community athletic programs for children through age sixteen are organized in Topsfield by the all-volunteer Topsfield Athletic Association (TAA), among others. The public schools do not provide team sporting opportunities until the Middle School. The TAA Board of Directors plans the activities, raises funds, recruits coaches and managers and provides equipment. Klock Park, Pye Brook Community Park and Emerson Field are the three main sites where the TAA conducts its activities. Football, field hockey and lacrosse are organized by other volunteer organizations in Town, including Masco Youth Football, Masco Girls’ Field Hockey and Tribal Lacrosse. The Town Park and Cemetery Commission maintains the facilities, which the teams use. Boy Scouts, Girl Scouts and 4-H clubs are active, volunteer-led organizations involving young people in Topsfield. The Topsfield Fair provides additional playing fields off of both Salem St. and Maple Streets.

The all-volunteer Topsfield Recreation Committee, appointed by the Board of Park and Cemetery Commissioners, has offered many non-competitive programs throughout the year. Currently the only programs offered are the Holiday Walk, Memory Tree and awarding the Mary Ellen McGee Pillar of the Community award. Past programs included:

- Summer concert series
- Holiday Walk
- Summer camp (six weekly sessions)
- Instructions in tennis, cooking, swimming, running, knitting, scrapbooking, horse care, bicycle course, floor hockey, origami, yoga, fencing, volleyball, mountain biking, CPR, jewelry making, square dancing, disc golf, and indoor field hockey

Note: participants in the summer camp and instructional programs pay fees that support these programs. There is no charge for activities such as the Holiday Walk and concert series or for participants that cannot afford the fees.

The Ipswich River, which passes through Topsfield, is a popular recreational resource for canoeing, kayaking, swimming and fishing. Each spring, summer, and fall hundreds of canoe and kayak enthusiasts paddle the river. Parking has been an ongoing problem for many years. As

mentioned previously a new parking area has being constructed which allows watercraft to safely be removed from car roofs instead of being adjacent to the travelled lanes of Rt. 97 (45 mph speed limit).

The Salem and Beverly Water Board owns approximately 270 acres of land in Topsfield including a portion of the Putnamville Reservoir and extensive acreage on both sides of Route 1 for use as a future reservoir. In 2015, the deteriorated wooden bridge which allowed crossing of the two mile long Beverly Salem Waterway canal was replaced by the Board.

The parcels listed in Appendix B, Inventory of Lands, are protected in several ways. First, some parcels have been deeded outright to the town under the jurisdiction of the Conservation Commission. Although technically town-owned, these properties do not have trails, programs, or services. Other parcels have been deeded to the Essex County Greenbelt Association, a nonprofit land trust that has conserved nearly 15,000 acres in Essex County.

Other parcels have been subjected to a formal Conservation Restriction or Agricultural Protection Restriction, legally binding agreements between a landowner and a restriction holder – usually a public agency or a private land trust (in Topsfield, the Essex County Greenbelt Association has most often served in this capacity.) Unlike private restrictions on land, which expire after 30 years unless provided to terminate earlier, formal Conservation Restrictions generally run in perpetuity and fall under the protection of Article 97 of the Massachusetts Constitution, which (as with the disposition of any other government-owned land or public parks) requires a 2/3 vote of the state legislature for termination.

Properties enrolled in the tax classification status provided in Chapters 61 (forest lands and forest products), 61A (agricultural and horticultural land), and 61B (recreational land) of the Massachusetts General Laws are protected temporarily from development while so assessed. Conversion of such lands to other purposes while assessed under one of these statutory schemes gives the town a right of first refusal for 120 days after notification. In the likely event that the Town is unable to exercise this right within the 120 days, it may be assigned to a non-profit conservation organization.

504 Inventory: The Town of Topsfield has no sites under the authority of the Conservation Commission, which provide programs, services, or public access (the Wildlife Path at Pye Brook Community Park is almost 100% within the wetlands buffer). The only site of concern is Klock Park, developed with Division of Conservation Services grant funds, which is under the jurisdiction of the Park and Cemetery Commission. The Klock Park ADA/Section 504 Accessibility Report was written by Mr. James Lyons of the Northeast Independent Living Program, Inc., on February 6, 1997.

Following are acreage land totals in the various categories:

• Town owned land	532 acres
• State owned land	156 acres
• Salem and Beverly Water Board	270 acres
• Ipswich River Wildlife Sanctuary	264 acres
• Land with Conservation Restrictions	889 acres
• Parcels with Chapter Land Agreements	1,100 acres

This refers to acreage within Topsfield (e.g., IRWS total including other towns is 1954 acres) and is approximate. See Appendix B - Inventory of Lands for detail and a description of individual parcels.

Section 6 – Community Vision

6.A. Description of Process

The Planning process for 2018 was more comprehensive than in years past for several reasons. Since the approval of the 2004 Plan, the Town has been able to secure a Scenic Overlay Zone, a Water Conservation Plan, improvements to the 1978 Open Space Residential Bylaw and a Stormwater and Erosion Control Bylaw. This has created better synergy between the TOSC and the other committees and boards.

In addition, the TOSC has utilized multiple methods for determining what the citizens of the community value. The planning process began in the fall with a survey (Appendix A) to the 2,207 Town households. The 367 residents that responded was about average for the past several Open Space and Recreation Plans. For the first time an online survey was employed using Google Forms. For those residents not using the internet for the survey paper forms were available in the Town Library and Town Hall. Staff in those locations were available to help residents fill out the forms online. The online survey greatly reduced the time commitment to score the returns. Paper surveys were entered online by the TOSC. Several of the questions allowed for comments. Online returns had significantly more written comments than in previous surveys and they were certainly more legible.

Finally, in October of 2017 the TOSC hosted an Open Space Forum at the Gould Barn (a Topsfield Historical Society property), providing residents with the chance to once again give voice to their values, needs and concerns. The TOSC explained the importance of the Open Space and Recreation Plan, the results of the 2017 Open Space and Recreation Survey and opened the meeting to discussion. An additional Open Space Forum on June 19 gave the public, town committees, boards and employees an opportunity to discuss the final draft of this plan. Lengthy discussions included:

1. Providing better and more accessible mapping of public trails in Topsfield
2. Public trails that are unused and overgrown in the Morningside Drive area
3. Continuity of the 7-year action plans
4. Inclusion of private walking trails on public documents
5. Detail of the COCS (cost of community services) calculations
6. The Open Space and Recreation Committee was acknowledged for their hard work in updating the Plan.

To address clean air, the Green Community/Renewable Energy Committee was created by the Selectmen. This committee has the charter of reducing energy consumption in the Town and developing alternate forms of energy generation such as windmills and solar photovoltaic. Financial assistance was provided through the Green Community Grant process offered by the Commonwealth of Massachusetts to reduce by 20% the energy consumption over a period of 5 years by the Town. The cost savings were projected to be \$121,287 at an expenditure of \$834,582 with grants from the Green Community of \$421,667. Utility incentives were \$158,159 for a net cost to Topsfield of \$97,234. The projects included:

1. Funds for replacing the Town Hall and Town library oil boilers with high efficiency condensing gas boilers. Purchase of the boiler was through a National Grid plan at greatly reduced cost.
2. Insulation (partial) in Town Hall. A significant amount of outside air infiltration was reduced by volunteers.
3. Online programmable thermostats (14 of them) to provide temperature setback and notification of equipment failure.
4. High efficiency lighting for Town Hall and Library, fire station, DPW, police buildings and the Proctor and Steward Schools.

After this extensive outreach to the community, the TOSC had a clear understanding of the values of the community and began to compile the goals and objectives for the next seven (7) years.

6.B. Statement of Open Space and Recreation Goals

The overall vision of the Plan remains unchanged. That is to preserve the rural and historic characteristics of the Town and to maintain the high quality of life that rolling hills, agricultural landscapes and riparian environments provide to the Town Residents. We envision a Town that includes an expanded offering of passive and active recreational opportunities that affords all residents access to nature walks, to a system of linked trails and to historical sites. Achieving this vision includes:

- Preserving the Rural and Historic Character of the Town
- Keeping Open Space open
- Enhancing and Expanding Recreational Trails and their connectivity
- Protecting Water Resources
- Protecting Critical Habitats
- Increasing ADA Accessibility for Topsfield Open Space and Recreational Facilities
- Public Outreach and Education
- Achieving Greater Energy Efficiency
- Reducing public and private water consumption

Section 7 – Analysis of Needs

7.A. Summary of Resource Protection Needs

Topsfield has an abundance of natural resources and attributes that contribute to the rural character of the town. The scenic vistas, wetlands, waterways, recreational trails, and forests provide natural habitats for wildlife and vegetation as well as prime recreational opportunities for the Town's residents.

Results of the current and previous TOSC Surveys indicated residents support acquisition of open space for conservation and recreation but many felt that the present amount of space used for recreation is adequate. In response to the question as to what recreational facilities are needed the most, a significant number of respondents indicated, in the order of preference, that recreation trails, nature trails, interconnected trails, sidewalks, children's play areas, small local parks, and senior centers were needed the most. Clearly, development will continue, but we hope to protect those parcels whose development would most negatively impact the Town. Some examples of a new trails added are:

- Hickory Beech trail, which was the result of an open space set aside. This trail may connect to a 107 acre parcel which is heavily covered with wetlands.
- English Commons walking trail (1.7 miles) around the English commons Open Space set aside land. This trail will connect with those in the Donibristle parcel.
- Rolling Green - private trail
- Topsfield Linear Common recreational trail - 1.6 miles added north of Washington St.
- Donibristle - 44 acres of open space with a network of trails that connect to English Commons which was purchased with the assistance of a Massachusetts "LAND" grant.

Complete protection of open land is best accomplished by transferring ownership, by gift or sale, to the Town's Conservation Commission or to a conservation trust, such as the Essex County Greenbelt Association, The Trustees of Reservations or a non-profit such as the Friends of Topsfield Trails. Other avenues for protection would include the use of permanent conservation restrictions, easements, purchase of development rights or outright purchase by the Town. All of the methods described had strong support from respondents; including the Town purchase option, which was strongly supported (as very important or acceptable) by over 92% of the respondents.

In its Metro Plan 2000, the MAPC has identified conservation and recreation priorities for the greater metropolitan Boston region. Its goals are "to preserve and protect critical land resources, to shape the growth of the region, to help preserve and enhance a "sense of place", and to fulfill the recreation needs and provide access to appropriate open spaces". Of the eleven criteria MAPC identified for land resources protection, nine are relevant to Topsfield's open space planning:

Establish links with the Bay Circuit trails, Topsfield Linear Common recreational trail (which is part of the Border to Boston and East Coast Greenway) Wildlife Path at Pye Brook Park, the Beech Trail at Hickory Beech Open Space and other protected lands.

The Wildlife Path around Pye Brook Park connects with the Topsfield Linear common. The English Commons trail connects with Donibristle.
Protect lands identified by local communities as lands of conservation interest
Identify and protect Areas of Critical Environmental Concern (ACEC's)
Protect areas identified as critical habitat for wetlands wildlife
Protect critical watershed or recharge areas for public water supply
Protect wetlands
Identify and protect scenic landscapes, including old farms, stonewalls, churches, town commons, historic districts, and views.
Protect major water bodies, rivers and streams

The current MAPC focus is on sustainable growth patterns, consistent with the “smart growth” philosophy espoused by recent state administrations. According to its website (“MetroFuture”), MAPC aims to concentrate population and job growth “in developed areas already served by infrastructure, with slower growth in less developed areas where infrastructure is more limited.”

The National Park Service requires the Commonwealth of Massachusetts to complete a Statewide Comprehensive Outdoor Recreation Plan every five years to remain eligible for funding from the Land and Water Conservation Fund grant program. A new survey was commissioned in September of 2017 but no results have been published. The 2012 update to the Statewide Comprehensive Outdoor Recreation Plan, or SCORP, reveals that northeastern Massachusetts has as many recreational sites and as diverse a set of recreational offerings as any other region in the state while containing the third lowest recreational acreage totals. This concentration continues to put considerable strain on currently available open space and recreational resources in the northeastern Massachusetts and in Topsfield. It suggests the need for a greater number of open space and recreational resources as well as careful and active management. The issue of recreational impact on natural resources straddles the boundary between resource protection needs and recreational needs. The quality of the environment is critical if its full recreational potential is to be realized. Field-based recreation is a well-documented need in SCORP. The northeast shows a higher preference than elsewhere in the state for recreational activities such as baseball, soccer and playgrounds. The study also reveals that the greatest expressed need among northeast residents for new recreational areas is for park-based recreation. Field-based recreation continues to place heavy demands on available fields in town. The organizations in Topsfield, the Topsfield Recreation Committee and the Topsfield Athletic Association that runs field-based recreation programs coordinate with the Parks and Cemetery Department. Thus, centralized scheduling and grounds maintenance is handled well. The 2017 Survey results are not consistent with the 2006 Northeast Massachusetts study in that the Town has adequate recreational facilities.

7.B. Summary of Community's Needs

The results of the 2017 Open Space Survey are included in this section. Ninety-six percent (96%) of survey respondents felt that it was important to retain the Town's rural character, scenic vistas and open space. Seventy-Six (76%) of the respondents felt that the Town should pursue efforts to obtain open space. Sixty-two percent (62%) favored corporate development, while ninety percent (90%) favored adding retail businesses, and seventy-seven percent (77%) favoring the addition of other services, such as gyms, hair salons and day care facilities.

Satisfaction with existing recreation facilities was high. Satisfaction (excellent, good and adequate) is seventy-four percent (74%) for children/youth facilities, sixty-five percent (65%) for seniors, eighty percent (80%) for families and seventy-nine (79%) for adults. The top five requested additional recreational facilities were the following: nature trails, interconnected trails, recreational trails, sidewalks and children's play areas, in that order. Addressing the interconnecting of trails, the accessible Topsfield Linear Common, a 3.9-mile trail built on an abandoned rail bed, is 66% complete, without the use of town funds as the Rail Trail Committee has been successful in obtaining grants and garnering volunteers for many projects. This trail now connects with the towns of Wenham and Boxford. When fully completed the "Border-to-Boston" trail from Danvers to the New Hampshire border will be a 28-mile recreational trail. The "Border-to-Boston" will then be part of the East Coast Greenway connecting 15 states, 450 cities and towns, and 3,000 miles of people-powered trails (32% off road) from Maine to Florida—the country's longest biking and walking route. See www.greenway.org.

Topsfield has a small, bustling, downtown area, which encompasses retail shops and professional offices, the Town Hall, Town Library, and the Proctor School. With many Town residents enjoying activities such as jogging, cycling, and walking, access to the downtown area, other than by motor vehicle, was of great concern to the respondents. There were many handwritten comments concerning the need for additional sidewalks and the poor condition of existing ones in many areas of Town. A major reason given for the inability of residents east of Route 1 to get downtown is the lack of safe pedestrian crossings over Routes 1 and 97. Along the rail trail alignment the Rail Trail Committee has installed pedestrian operated solar powered RRFB's (rapid rectangular flashing beacons) working with both Mass DOT and the Topsfield Traffic Safety Committee to provide a safe crossing over each of these roads. Additional RRFB's should be installed at other crossings. Another DCR grant has been applied for to cover their cost.

Respondents also expressed concern for the protection and preservation of scenic areas in Town, specifically, the vistas from Route 1 and Wheatland's Hill, to name just two. Additionally, respondents wanted better land markings of existing trails (this is now being done).

In terms of the needs of handicapped citizens, Topsfield is fortunate to have a rail trail that is accessible. The stone dust surface is highly compacted. Road crossings at Main St. and Route 1 have tactile mats. Wheelchairs barely penetrate the surface. Additionally, the Topsfield portion of Bradley Palmer State Park offers a riverside trail that is ADA compliant. However, the Town does not offer a borderless play area for children. The community would benefit from upgrading a play area to make it borderless for handicapped families.

In terms of the needs of teenagers, the Town does not have an area designated for teenagers to gather and socialize. Most teen activities are centered around organized sporting events.

Seniors in Town were about 75% satisfied with recreational facilities, as noted above in the survey results. However, the Town does not have a gathering place for seniors. Although there is a conference room at the Town Library that can be used for meetings and events, there is not a place that is designated for seniors and their social activities.

Previous town surveys strongly suggested the Town would benefit from having a mixed-use Community Center for seniors and teenagers. These deficiencies are being addressed with the Town Hall expansion, which is now underway. It will have space for seniors to meet as well as the return of the 2nd floor auditorium for Town events.

7.C. Management Needs, Potential Change of Use

Topsfield's governmental structure disperses jurisdictional authority widely across Town Departments, boards and committees. Communication among these various groups is essential to shape development in a way that best protects the Town's character and resources. Coordination between town departments and committees has greatly improved in the recent past with the addition of a Town Administrator, the adoption of a number of "Best Permitting Practices," including intensive use of the Town website for documents, forms, minutes, agendas and posted filings, and better liaison activities with selectmen.

While Topsfield does not have an updated "master plan" per se, it does have an active EO 418 Community Development Plan. To achieve the goals and objectives of this plan, communication is crucial among the Town's boards. For example, the Selectmen should automatically contact the TOSC if a parcel of Chapter 61 land is to be sold to determine whether it has been identified as a target for protection. Under the "61" rules, the Town has the 120 day right of first refusal at the sale of these parcels. This right is assignable and, if the Town cannot raise the funds, the right can be transferred to a conservation group, which could secure moneys to purchase the lands. The TOSC would assist the conservation group in assessing the importance of the parcel to the Town, among other duties.

With regard to Chapter lands, it is important that the Town develop a strategy for considering acquisition of such properties should they be deemed significant. A review of each of these properties with their potential uses should be conducted. Additionally, the process the Town would follow to acquire any such property should be ascertained in light of the 120 day time frame in which the Town would need to act.

Continuing the review and examination of the Town's bylaws is one of the most critical actions that is needed to ensure that the Town's rural character is protected. Town Meeting has recently approved a number of bylaws and zoning initiatives for this reason. For instance, at the 2017 Town Meeting, zoning changes were approved that simplify area requirements to 2 acre minimums. Prior notice was sent out and a town forum discussed the changes so that landowners could subdivide lots and be grandfathered in prior to the required two-thirds town

vote. The village district is completely built out so there was no need for an area requirement. The Business Highway and Business Highway North areas were re-zoned to allow mixed uses making the existing businesses conform to the new Table of Uses. This allows those buildings to house different businesses and to change their footprint and expand, within guidelines. These changes were designed to encourage business owners to improve their properties and offer new opportunities for economic development without impacting residential or open space land. Future studies are necessary to determine how best to protect agricultural land and large estate properties.

There is also a need for plans to be drawn up focusing on the long-term uses of town-owned recreation and conservation lands. The Conservation Commission is currently mapping conservation lands in the effort to establish an inventory. The long-term plan is to ascertain how these lands can best be utilized, managed, and protected. The Board of Selectmen, in conjunction with the Park and Cemetery Department, will be taking up the issue of the delivery of recreational services in Town with the goal of determining how best to support volunteer groups or assume official responsibility in this area. Among the elements of this study will be an inventory of recreational facilities and services and an analysis of the costs and available sources of funding. The implementation of these plans, as well as general maintenance activities, are needs that will require a creative solution, such as utilizing volunteers, given the Town's current budgetary constraints. There is little likelihood that current property taxes can support expanded Town recreational services or maintenance of Town-owned properties.

Recreational and open space resources in Topsfield are not constrained by town boundaries, but are regional in nature. Town efforts to coordinate open space issues can best be enhanced with the aid of local interest groups such as the Ipswich River Watershed Association and the Essex County Greenbelt Association that are already working together on a wide range of issues. The Friends of Topsfield Trails, a 501(c)3 organization (created in 2008 for the purpose of creating and maintaining recreational trails in Topsfield) along with the Essex County Trail Association and the Topsfield Rail Trail Committee are working towards interconnecting trails with neighboring towns. The Agricultural Commission will be working with Commissions in neighboring towns and with regional and state groups to further efforts to preserve farmland and promote agriculture.

Section 8 - Goals and Objectives

As noted in the prior section, the Open Space Survey results and public feedback are the driving forces behind this plan's goals and objectives. The majority of residents like the Town the way it is and wish to retain its rural character. Residents also expressed a desire for connecting, expanding, and improving recreational and nature trails. Additionally, residents were concerned about fiscal responsibility during difficult economic times and favored Open Space initiatives that would not involve an increase in taxes. The following list provides concrete objectives to realize the vision discussed in Section 6. As mentioned in several sections of this updated plan most of the goals following have had seen substantial progress.

Goal A. Preserve the Rural and Historic Character of the Town

1. Retain and protect scenic vistas, byways, archaeological sites and natural features in Topsfield
2. Preserve Topsfield's farmlands
3. Obtain Grants to fund the Open Space Committee's initiatives.

Goal B. Keep Open Space Open

1. Work with Town officials and other groups on land protection options.
2. Ensure that Open Space goals and objectives are met.
3. Utilize Forestry Management to preserve forests.

Goal C. Connect, Enhance and Expand Trails

1. Work with other towns, groups and associations to coordinate efforts.
2. Coordinate with neighboring towns to link trails
3. Coordinate with Town authorities and other groups to improve existing trails

Goal D. Protect Water Resources

1. Coordinate with organizations such as the Ipswich River Watershed Association to help protect the Ipswich River and tributaries.
2. Coordinate with Town authorities to protect the Ipswich River Watershed and the surface and groundwater supplies within the Town.
3. Coordinate with Town and State authorities to promote the protection of vernal pools and wetlands from the effects of development.

Goal E. Protect Critical Habitats

1. Inventory critical habitats.
2. Work with Town boards, committees and departments to ensure that critical habitats are protected from development and the effects of development.
3. Protect contiguous forests, wildlife corridors, fields and meadows from fragmentation for wildlife habitat.

Goal F. Enhance ADA Accessibility for Topsfield Open Space and Recreational Facilities

1. Expand ADA accessibility.
2. Publicize existing ADA accessible recreational areas in Town.
3. Increase safety on the Town's trails, streets, crossings and sidewalks.

Goal G. Public Outreach and Education

1. Create educational programs.
2. Expand the Open Space Committee's web presence.
3. Encourage awareness and use of Topsfield's trails and recreation areas.

Goal H. Environmental

1. Help Topsfield focus on reducing its CO2 footprint.
2. Ipswich Watershed water conservation
3. Reduce human footprint
4. Reduce trash, both in creation of and litter.

Section 9 - Seven Year Action Plan

The TOSC has designated the following programs and initiatives as vital to meeting its goals including: retaining the character of Topsfield, preserving open space, protecting the water supply and enhancing Topsfield's trail system. The TOSC has outlined areas of general concern for preservation in Map 8.

The Town of Topsfield relies in large part on volunteer boards and committees to conduct the work of the town. Most of the Goals and Objectives below have been integrated into the regular work of the town boards and committees identified as "Responsible Party." These groups work in conjunction with Town Departments funded by the town budget. In those cases where additional funding would be required, grants and private donations would most likely be required in that Topsfield's tax base is severely strained. Grants and private donations are listed as funding sources based on the Town's past experience in receiving such monies for projects.

DCR – Department of Conservation and Recreation; ENHC – Essex National Heritage Commission, FTT - Friends of Topsfield Trails; GC/RE – Green Communities/Renewable Energy; THS – Topsfield Historical Society; TOSC – Topsfield Open Space Committee; PD – private donations; CEC – Clean Energy Choice

Goal A. Preserve the Rural and Historic Character of the Town				
Objective	Action	Start Year	Responsible Party	Funding Source
A-1	Showcase historic agricultural and archeological sites in town.	2018	Historical Commission	Town Board
	Work to ensure that cemetery monuments are preserved.	Continuing	Parks and Cemetery Commissioners	Town Department; THS
	Create, and connect recreational paths	2018	Open Space Committee	Volunteer efforts, PD, grants.
A-2	Inventory Topsfield farms and their products.	2018	Agricultural Commission	Town Board
	Pursue new agricultural opportunities	2018	Agricultural Commission	Town Board in conjunction with farm

	such as maple syrup production.			community.
	Apply for grants for agricultural preservation.	2018	Agricultural Commission	Town Board
	Encourage local produce and farmers' markets	2018	Agricultural Commission	Town Board; Topsfield Farmers' Market.
A-3	Apply for grants for historic preservation.	Ongoing	Historical Commission	Town Board

Goal B. Keep Open Space Open

Objective	Action	Year	Responsible Party	Funding Source
B-1	Establish criteria that will better enable the Town to act on right of first refusal on Chapter 61, 61A or 61B land.	2018	Planning Board, Board of Selectmen and TOSC	Town Boards
B-2	Coordinate efforts with the Planning Board and officials on new growth management and master planning to ensure that Open Space goals and objectives are realized.	Ongoing	TOSC	Town Board

Goal C. Enhance and Expand Trails

Objective	Action	Year	Responsible Party	Funding Source
C-1	Work with the Topsfield Conservation Commission, Rail Trail Committee, Friends of Topsfield Trails, Essex County Trail Association, local landowners, Essex County Greenbelt Association, Mass Audubon to create a linked trail network.	2018	TOSC	Private donations, grants and volunteer effort.
C-2	Produce a Topsfield Trail booklet with maps and description of the trails	2019	TOSC, Friends of the Topsfield Trails	
C-3	Work with the Border-to-Boston coalition of 8 towns and regional environmental organizations, including the East Coast Greenway to ensure the linked trail system expands beyond Topsfield.	2018	Rail Trail Committee and FTT	Grants from DCR, FTT, ENHC and private donations
C4	Coordinate with	2018	Rail Trail	Town Boards

	town committees to host fundraising events and volunteer work parties to improve and maintain existing trails.		Committee, FTT, and Recreation Committee	and volunteer effort.
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Goal D. Protect Water Resources

Objective		Action	Year	Responsible Party	Funding Source
D-1	Create a Topsfield Stream Team to work with the Ipswich River Watershed Association on initiatives such as fish count, public outreach, monitoring and fundraising for river conservation efforts (i.e. rain barrel promotion).		2018	TOSC - Ipswich River Watershed Association.	Volunteer efforts.
D-2	Educate the public on water conservation and effects of chemical fertilizers and de-icing chemicals		On-going	Water Department, Conservation Commission & Board of Health	Town Departments and Boards
	"Spot Check" nitrates and other contaminants in streams and ponds to track their origin.		On-going		
D-3	Continue to identify and certify vernal pools		2018	Conservation Commission	Town Board and volunteer effort.

Goal E. Protect Critical Habitats				
Objective	Action	Year	Responsible Party	Funding Source
E-1	Inventory critical habitats coordinating with organizations including the Natural Heritage & Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries and Wildlife, the Essex County Greenbelt Association and Mass Audubon Society.	2018	Conservation Commission	Town Boards in conjunction with volunteer effort.
E-2	Work to update or add bylaws for greater protection.	2018	TOSC, Planning Board, Conservation Commission	Town Boards
	Publicize Conservation and Planning Board meetings that impact critical habitats.	2018	TOSC, Planning Board, Conservation Commission	Town Boards
	Create an incentive program for residents to protect critical habitats on their property.	2018	TOSC, Conservation Commission, Board of Selectmen	Town Boards
	Utilize the media	Ongoing	TOSC	Town Boards

	(Town website, local access channels and weekly paper) to publicize and educate the public on development projects that could impact critical habitats.			
E-3	Ensure that Open Space set asides are linked to adjoining parcels where feasible to preserve wildlife corridors.	Ongoing	Planning Board and TOSC	Town Boards
	Educate residents on the importance of contiguous habitats through programs such as guided nature walks and media outreach.	2018	TOSC	Town Boards
	Encourage opportunities for passive recreation so the forests can be appreciated.	2018	TOSC, FTT	Town Boards and volunteer effort

Goal F. Enhance ADA Accessibility for Topsfield Open Space and Recreational Areas				
Objective	Action	Year	Responsible Party	Funding Source
F-1	Work with Town Committees and ADA Accessibility Officer to	2018	TOSC, ADA Officer	Town Boards and ADA grants

	identify more Topsfield trails to become ADA Accessible.			
F-2	Design and build an ADA borderless play area	2018	TOSC	PD, ADA grants
	Provide an information outreach to the public to ensure awareness that the new Topsfield Linear Common is ADA Accessible	2018	TOSC, Topsfield Rail Trail Committee and FTT	Town Boards and volunteer effort.
	Create an Accessibility trail guide that includes the wheelchair accessible trail in Bradley Palmer State Park.	2018	Topsfield Rail Trail Committee and FTT	Private donation – FTT.

Goal G. Public Outreach and Education

Objective	Action	Year	Responsible Party	Funding Source
G-1	Coordinate with Masconomet High School's AP Biology Department and senior interns on programs to encourage students to give their time to community service for TOSC projects.	2018	TOSC	Town Boards, Regional Middle and High School volunteers

	Coordinate efforts with the Conservation Commission to create a Topsfield Nature Club featuring speakers and trail walks that would focus on various topics ranging from preserving natural habitats to the flora and fauna of Essex County.	2018	TOSC and Conservation Commission	Town Boards and community participants
G-2	Enhance the Open Space Committee web pages with Topsfield trail maps and a self-guided tour of natural and historic areas of interest.	2018	TOSC, FTT and Website Committee	Town Boards and PD
	Include a “What’s New” section to highlight new Open Space initiatives.	2018	TOSC and Website Committee	Town Boards

Goal H. Achieve Greater Energy Efficiency				
Objective	Action	Year	Responsible Party	Funding Source
H-1	Coordinate with the Planning Board, Green Community/Renewable Energy Committee and	On-going	TOSC & GC/RE Committee	Town Boards

	the Conservation Commission and other town authorities to encourage environmentally sound development in public buildings and private residences.			
	Retrofit the town's 150 street lamps with higher efficiency units.	2018	GC/RE Committee	Grants
	Organize a tour of energy efficiency houses in the Town	2018	GC/RE Committee	Town Board

Section 10 – Public Comment

Public comment on the town wide survey was held at the Open Space Forum held on October 18, 2017. Members of the Open Space Committee presented results of the survey and compared many of them to that from previous surveys. A second Public Forum was held on June 19, 2018 prior to the final report. Details can be found in section 6A.

Section 11 – References

- Massachusetts Executive Office of Energy and Environmental Affairs “An Open Space and Recreation Planner’s Workbook”.
- Mass Department of Conservation and Recreation
- Mass Department of Fish & Game
- Mass Department Agricultural Resources
- Mass Wildlife/Natural Heritage & Endangered Species
- Mass GIS (geographic information systems) website
- Metropolitan Area Planning Commission
- Town of Topsfield, Open Space and Recreation Plans 2010
- Cost of Community Services, Holger Luther, Topsfield Finance Committee
- Town of Topsfield Council on Aging, Ms. Paula Burke, Executive Director,
- Tri-Town School Union, Dr. Scott Morrison, Superintendent,
- Topsfield Water Department, Greg Krom,
- Ipswich River Watershed Association, Wayne Castonguay
- Scenic Landscape Inventory published by the Department of Environmental Management (DEM)
- The Topsfield Historical Commission, Topsfield Reconnaissance Report
- Statewide Comprehensive Outdoor Recreation Plan
- Town of Topsfield, Building Department & Board of Health
- Massachusetts Audubon Society
- U.S. Department of Agriculture – Dept. of Soil Conservation Services

Appendices

Appendix A

[Open Space Survey Cover letter]



Open Space Committee

Sept. 2017

Dear Topsfield Resident:

Every seven years the town of Topsfield is required to submit an Open Space and Recreation Plan to the state in order to qualify for state grants. As part of the requirement residents are asked to complete a short survey to provide information for the updated Open Space and Recreation Plan.

The survey can be completed either:

- **On-line by town residents at www.Topsfield-MA.Gov/openspace (look for the hot link near the page bottom.)**
- **At the Town Library or Town Hall. Survey forms and assistance are available from the Council on Aging office or the staff at Town Library, where they can also be returned.**

The Topsfield Open Space Committee (TOSC) is conducting this short survey to obtain vital input from registered Topsfield voters on land use, resources, resource management, cultural, and recreational needs. The last Open Space and Recreation Plan was approved in 2010. The state requires an update every 7 years. If you would like to review the 2010 plan please go to "<http://topsfield-ma.gov/OpenSpacePlan-2010.pdf>". The results of this survey will be incorporated into an updated Open Space and Recreation Plan for the Town. The Massachusetts Department of Conservation Services (DCS) is the approval authority. Topsfield must have an approved plan to be eligible for many state and federal grants. Among such grants previously received was almost \$200,000 to help build the Topsfield Linear Common recreational trail and funds have been applied for the purchase and protection of the 44 acre Donibristle parcel. The updated 100+ page plan must be submitted this year and it is a huge undertaking for this all volunteer committee. Your timely response is greatly appreciated.

This survey is your opportunity to help shape Topsfield's future.

Please feel free to add comments with your answers. Putting your name on the survey is optional. If you have questions or comments please feel free to leave a message at Town Hall

(887-1500) for a return call by a member of the TOSC.

Please complete this survey no later than October 31, 2017. This is your opportunity to help shape Topsfield's future. Thank you for your cooperation.

With kind regards,
Your Topsfield Open Space Committee

2017 Topsfield Open Space Survey

2017 Topsfield Open Space Survey

Thank you for taking the time to participate in the 2017 Topsfield Open Space Survey.

Every seven years the town of Topsfield, through its Open Space Committee (the "TOSC"), is required to submit an Open Space and Recreation Plan (the "Plan"). This Plan is important to our Town as it is a requirement to be eligible for many state and federal grants.

Without a Plan, Topsfield would not have received almost \$200,000 to build the Topsfield Linear Common recreational trail and would not be eligible to apply for funds to purchase the 44-acre Donibristle parcel that was approved at the 2017 Annual Town Meeting.

Citizen input on land use, resources, resource management, cultural and recreational needs is a required element of preparing the Plan. This is your opportunity to help shape Topsfield's future.

Thank you for taking the time to participate in our survey. This is your opportunity to help shape Topsfield's future.

Please feel free to leave comments or questions where indicated. Alternatively, you can reach members of the TOSC by calling Town Hall (978) 887-1500) and leaving a message.

1) Do you consider Topsfield (Please choose one):

- ☐ A rural Town?
- ☐ A Town in transition from rural to suburban?
- ☐ A suburban Town?
- ☐ Other

1a) If you answered "Other" in question 1 above, please explain:

2) Why did you move to Topsfield? *Mark only one box per row*

	Important	Neutral	Not Important	Not Applicable
Business Opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
School System	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proximity to Boston	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Affordability of Housing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scenic Vistas and Open Space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Town Character	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Safety/Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2a) If you answered "Important" to "Other" in Question 3 above, please explain:

3) **What characteristics about Topsfield do you value?** *Mark only one box per row*

	Important	Neutral	Not Important	Not Applicable
Cultural (library, historical etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
School System	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proximity to Boston	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Affordability of Housing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scenic Vistas and Open Space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Town Character (historical architecture & visual farming landscape)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Safety/Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recreational Opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Small Town Atmosphere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family Connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3a) **If you answered "Important" to "Other" in Question 3 above, please explain:**

4) **Do you want the physical appearance, character or building practices of Topsfield to change over the next five years?**

Yes ☐
No ☐

4a) **If you answered "Yes" to Question 4, how do you want the physical appearance, character or building practices of Topsfield to change over the next five (5) years?**

5) **What type of residential development is most acceptable to you?** *Mark only one box per row*

	Very Important	Acceptable	Neutral	Not Important	Not Applicable
Elderly Housing Over 55 as Rental	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Elderly Housing Over 55 as Owners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Subsidized Affordable Housing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Single Family Residences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Apartments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cluster Housing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5a) If you answered "Very Important" to "Other" in Question 5 above, please explain:

6) What type of commercial development is most important to you? *Mark only one box per row.*

	Very Important	Acceptable	Neutral	Not Important	Not Applicable
Individual Retail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corporate Businesses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office Buildings/Parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Auto Dealerships/Repair Shops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fast Food Restaurants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manufacturing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Full Service Restaurants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Services (e.g. gyms, hair salons, daycare facilities, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tavern (bar with food)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6a) If you answered "Very Important" to "Other" in Question 6 above, please explain:

6b) Where would commercial development be most acceptable to you?

- ☐ Route 1 north of Ipswich Road to the Ipswich town line.
- ☐ Route 1 north of Route 97 to Ipswich Road.
- ☐ Route 1 between the Topsfield Fairgrounds and Route 97.
- ☐ Topsfield Center
- ☐ There should be no commercial development
- ☐ Other

[Survey Continued on Next Page]

7) What town actions do you favor to preserve and/or obtain open space and recreation land? *Mark only one box per row*

	Very Important	Acceptable	Neutral	Not Important	Not Applicable
Outright land purchase by the Town of Topsfield	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Town of Topsfield to purchase land development rights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change zoning laws to limit development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enact a program to annual set aside tax monies to be used for future open space, recreation and historic preservation such as a "Community Preservation Act"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with property owners to obtain Conservation Restrictions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7a) If you answered "If you answered "Very Important" to "Other" in Question 7 above, please explain:

8) What additional recreation facilities are most needed? *Mark only one box per row*

	Very Important	Acceptable	Neutral	Not Important	Not Applicable
Conservation preserves/Nature trails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trails connected to one another	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recreation trails (non motorized)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional Sidewalks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Children's Play Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sports Playing Fields	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Picnic Areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Small local parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Amphitheater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tennis Courts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Skateboard park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Swimming Pool (municipal)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Summer Day Camp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8a) If you answered "Very Important" to "Other" in Question 8 above, please explain:

9) How satisfied are you with the recreation facilities in Town for the following groups? *Mark only one box per row*

	Excellent	Good	Adequate	Inadequate
Children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adults	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Families	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seniors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10) How often do you or your family use conservation areas, town parks and/or recreational facilities, including but not limited to, the Rail Trail and Pye Brook Park, during the spring, summer and fall? *Mark only one box*

5x per week	<input type="checkbox"/>
1x per week	<input type="checkbox"/>
1x per month	<input type="checkbox"/>
Never	<input type="checkbox"/>

11) Should Topsfield develop a residential water conservation program, possibly with financial aid from the state, if available, to reduce water consumption? *Mark only one box*

Yes ☐
No ☐

12) The federal government passed a "Safe Routes to School" program that may make funds available to help develop safe accesses to schools. Should Topsfield participate in this program? *Mark only one box*

Yes ☐
No ☐

13) How long have you been a resident of Topsfield? *Mark only one box*

Less than 5 years	<input type="checkbox"/>
5 to 10 years	<input type="checkbox"/>
10 – 20 years	<input type="checkbox"/>
More than 20 years	<input type="checkbox"/>

[Survey Continued on Next Page]

14) How many children in the following age groups reside in your household? *Mark only one box per row*

	0	1	2	3	4	5	More than 5
Less than 3 years old	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 to 12 years old	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13-17 years old	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15) How many adults in the following age groups reside in your household?

	0	1	2	3	4	5	More than 5
18-25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26-35	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36-45	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46-55	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56-65	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Over 65	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments or Questions

Are you interest in joining or volunteering for the Topsfield Open Space Committee or another committee concerned with environmental preservation and/or "green communities"?

Yes ☐
No ☐
Maybe ☐

Optional (please print): Providing the following information is helpful but not required. We will only use your information for data analysis and this information will not be disseminated.

Name:

Address:

Email:

Phone:

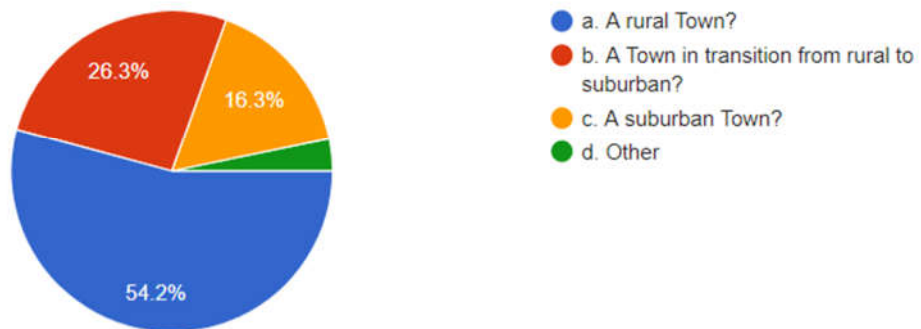
Suggestions for Improving this Survey or the Open Space Survey Process?

The Topsfield Open Space Committee Thanks You!

2017 Topsfield Open Space Survey Results

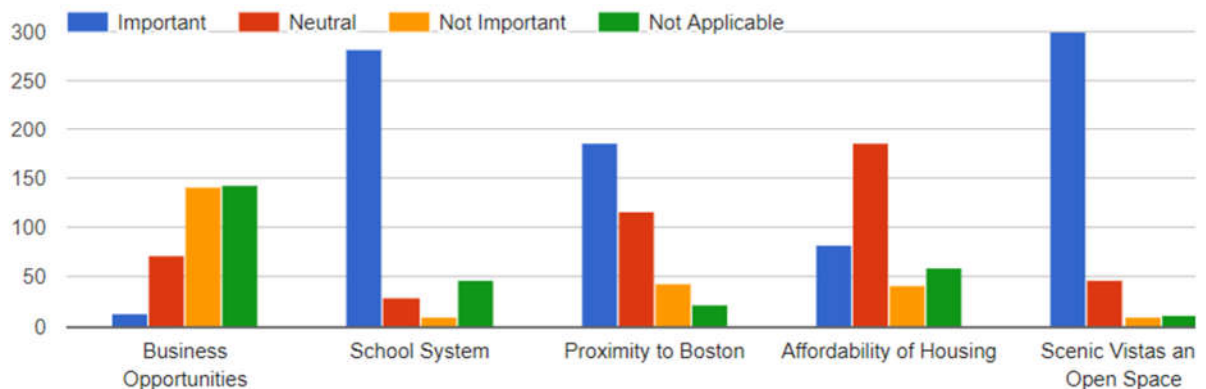
1. Do you consider Topsfield to be:

369 responses



The results from the current survey and within a few percentage points from that in 2010.

2. Why did you move to Topsfield? (please check all that apply)



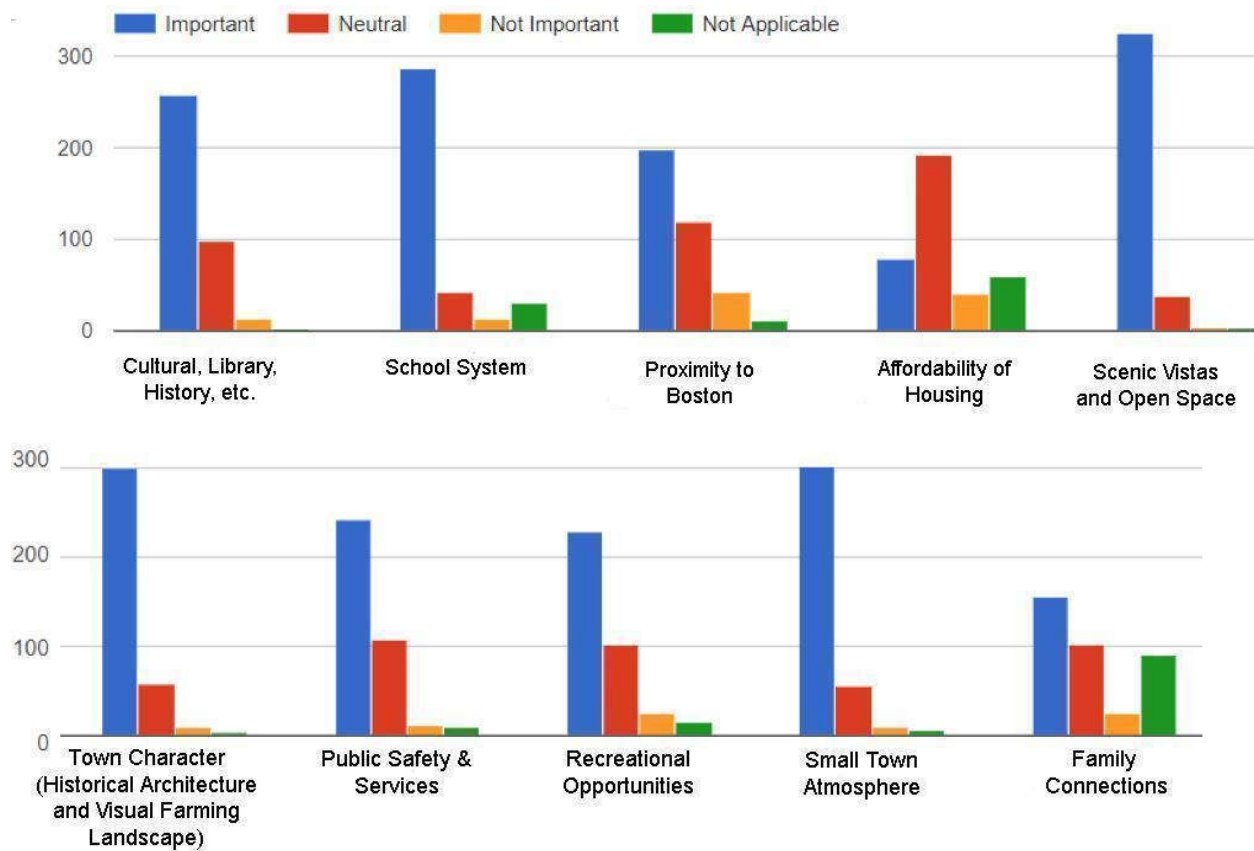
There is a significant change in Affordability of Housing which is likely due to rising taxes and higher resale homes. People are less concerned about public safety. The other responses to questions are within the range of past Open Space surveys.

Comments on Question 2:

Small population

Proximity to river, parks, trails, farms and outdoor recreation. Great school system, Public safety and not overdeveloped.

3. What characteristics about Topsfield do you value? (please check all that apply)



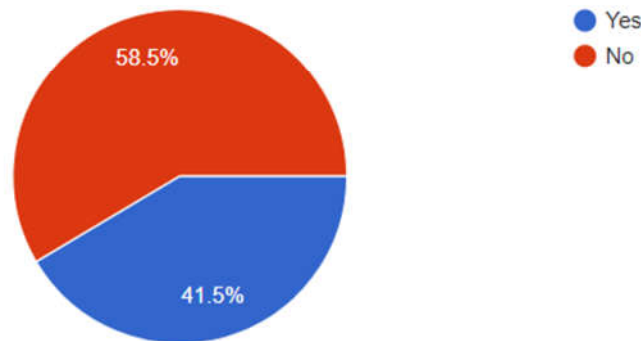
The results are similar to previous years with the exception of family connections decreasing to 42% from 77%. This could be from the aging population and the higher cost of housing for family members.

Comments on Question 3:

Trail Systems, green spaces, equestrian opportunities, diversity, town meeting, nature, tight community, views.

4. Do you want the physical appearance, character or building practices of Topsfield to change over the next five (5) years?

369 responses



The 2010 survey resulted in equal percentages of yes and no. This survey indicates more respondents are looking for a change as indicated in the comments below.

Comments on Question 4:

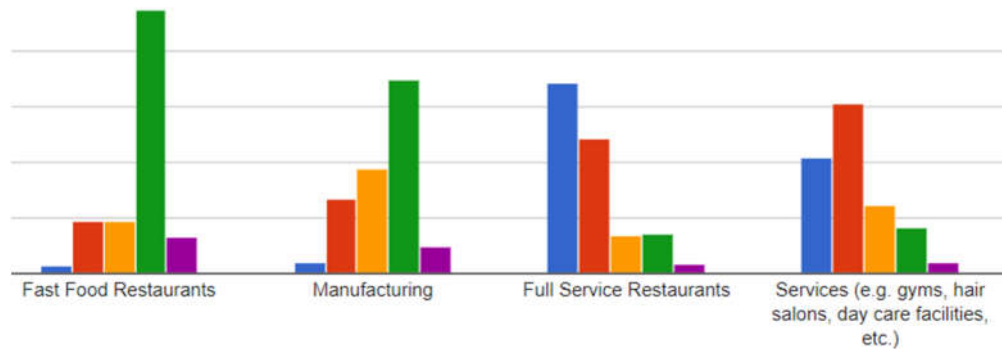
58.5 percent of respondents did not want the physical appearance, character or building practices of Topsfield to change over the next five (5) years.

41.5 percent do want the physical appearance, character or building practices of Topsfield to change over the next five year. Of those who answered “Yes”, the majority of commenters or 70.77% would like to see changes to the downtown. This group of Residents generally believes that the downtown area of Topsfield needs to be revitalized.



Comments on Question 5:

This question focused on types of residential development in Topsfield. We asked those who marked “Very Important” in the “Other” category, a total of 15 responses, to explain. Several commenters (a total of 5) did not want to see any additional 55+ or Senior Housing Developments. We received several comments (total of 4) about not wanting large developments or any new developments in our town. Finally, nine (9) commenters focused on wanting affordable housing options in Topsfield.



Comments on Question 6:

Asked about commercial development in Town. The Survey asked those who answered “Very Important” to the “Other” category to explain. Similar to the written responses for Question 4, Residents who commented seek changes to the downtown area and wanting choices downtown such as grocery stores (11 responses, taverns and locally owned retail/service business. Other comments included the following:

“It would be nice to have a local pub.”

“Diverse options”

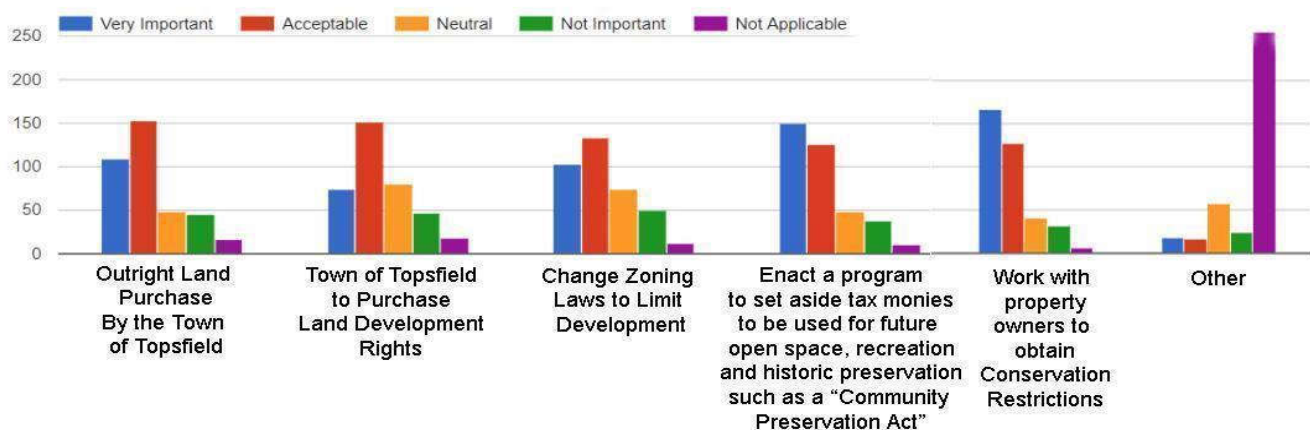
“More stores:

“Need better places to eat and gather”

“Independent coffee houses, bakeries, community-fostering businesses.”

Based on the responses to Questions 4, 5 and 6, it appears it would be a good exercise for the Town to take a look at ways it can work with local real estate owners and developers as well as small business owners to develop and revitalize the downtown area.

7. What town actions do you favor to preserve and/or obtain farm, open space, and recreation land?



Comments on Question 7:

This question pertains to town actions that could be taken to preserve and/or obtain open space and recreation land.

41% of the respondents felt that it was “Very Important” for the town to enact a program to annually set aside tax monies to be used for land preservation or conservation.

41% of respondents felt it was “Acceptable” for the town to buy land outright, or purchase development rights.

In the section “Other,” 54% of respondents answered “Unimportant.” 7% of respondents chose “Very Important” under “Other” and left comments that were equally divided, with half the respondents saying that they support land conservation measures. Of the other half, 3 commented that they favored land development and new business growth, and several others (4) were concerned about raising taxes. The comments included:

“Keeping open space is very important”

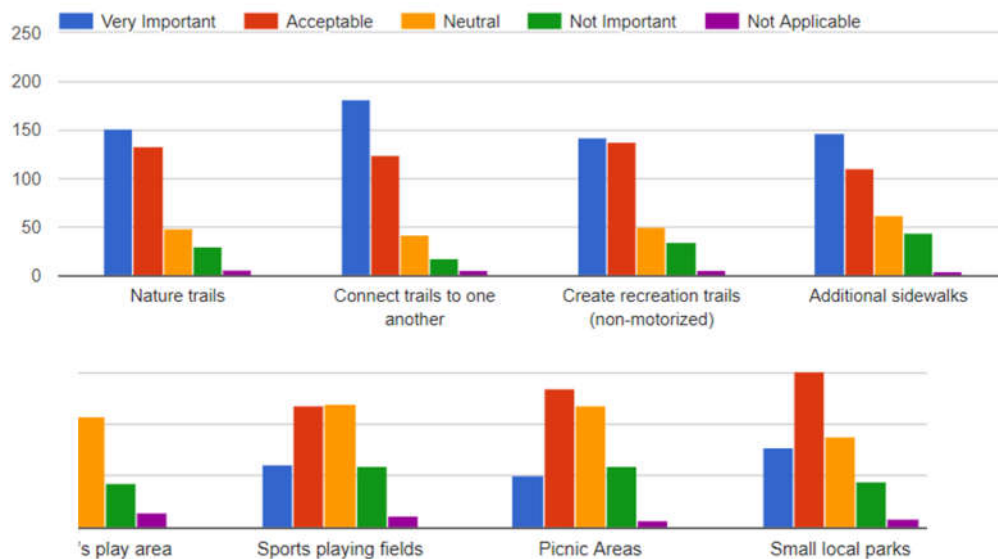
“I moved to Topsfield because of the scenic surroundings, open fields, agriculture, etc.”

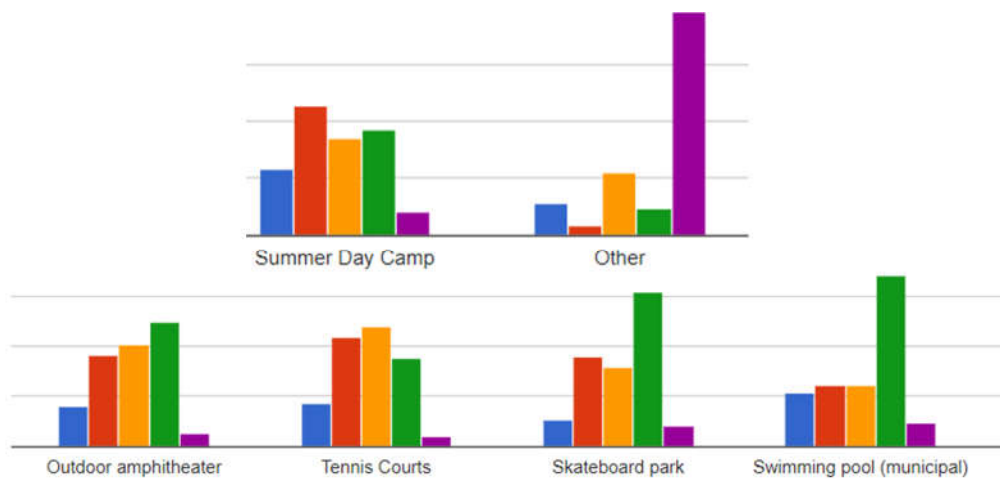
“Need to preserve open space and land for future generations”

“Priority should be working with landowners, not purchase of land”

“This town needs more business tax dollars, not more of us paying taxes for more open space”

8. What additional recreation facilities are most needed?





Question 8.

Comments on Question 8:

50% answered connecting existing trails to one another was “Very Important.”

40% answered that nature trails were “Very Important.”

38% felt creating recreational trails was “Very Important.”

40% felt additional sidewalks were “Very Important.”

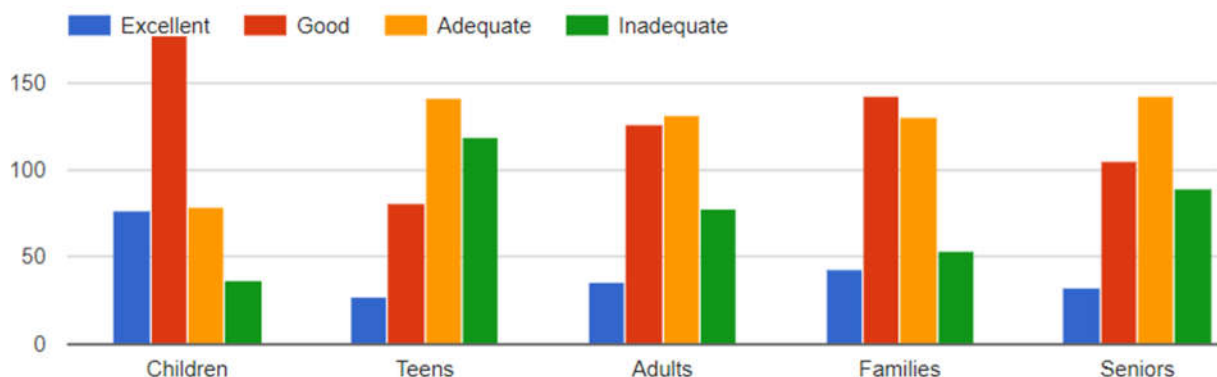
In responding to “Other,” 54% felt additional recreational facilities were “Unimportant,” while 7% answered “Very Important,” and left comments.

In the comments, 3 respondents each felt that the town needs an off leash dog park, a teen center or recreation center, and suggested making Hood’s Pond free to all town residents. Otherwise the comments included:

“I’d like to see this town continue to invest in outdoor experiences and attractions for Topsfield and out surrounding community”

“Maintain what we have!”

9. How satisfied are you with the recreation facilities in Town for the following groups?



Comments on Question 9:

This question pertains to residents’ satisfaction with the recreation facilities in town for children, teens, adults, families, and seniors.

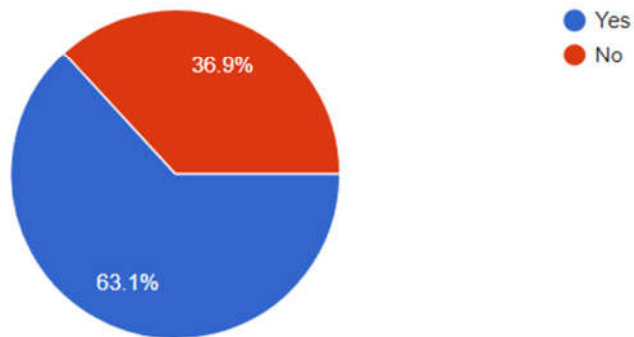
49% of respondents felt that the facilities for children were “Good”

33% of respondents felt that the recreation facilities for families were “Good”

What was noteworthy was that 33% of respondents indicated that the recreation facilities for teens were “Inadequate.” It seems that the town has room for improvement in the area of recreation opportunities for teens.

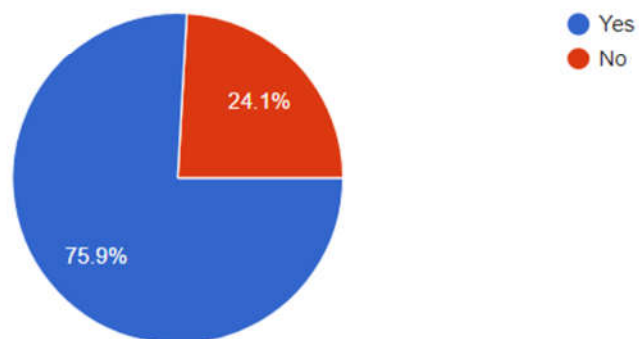
11. Should Topsfield develop a residential water conservation programs, possibly with financial aid from the state, if available, to reduce water consumption?

369 responses



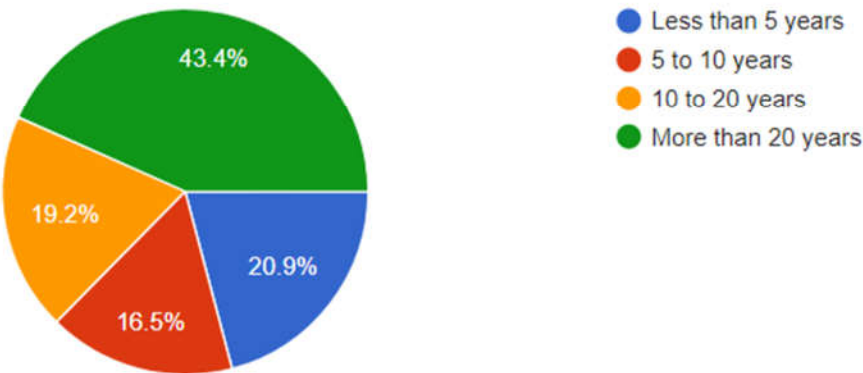
12. The federal government passed a “Safe Routes to School” program that may make funds available to help develop safe accesses to schools. Should Topsfield participate in this program?

369 responses

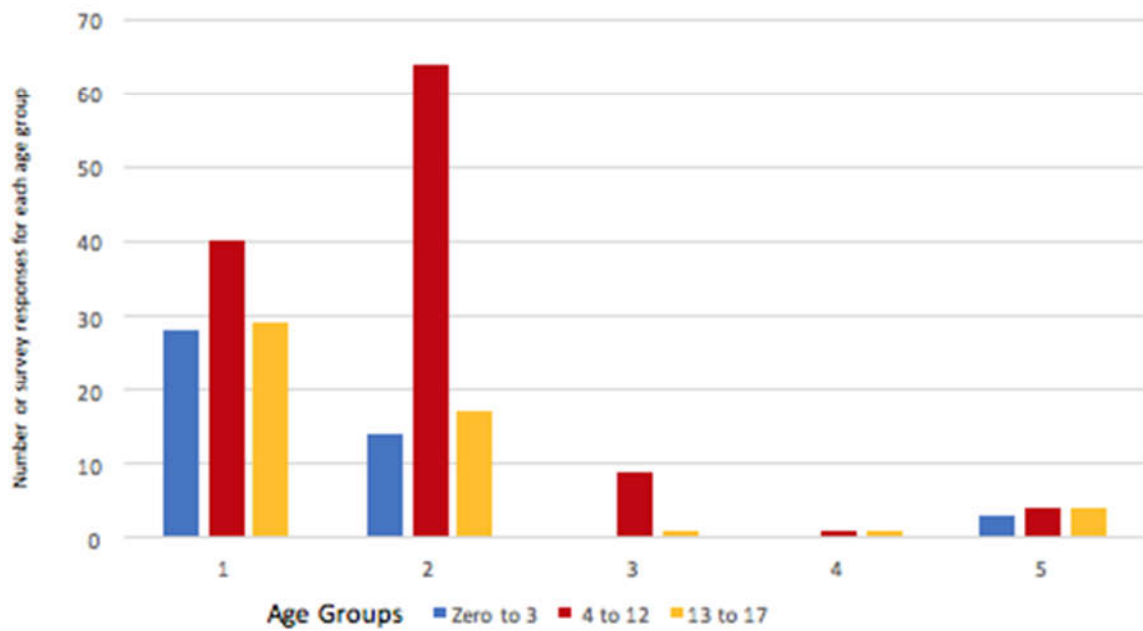


13. How long have you been a resident of Topsfield?

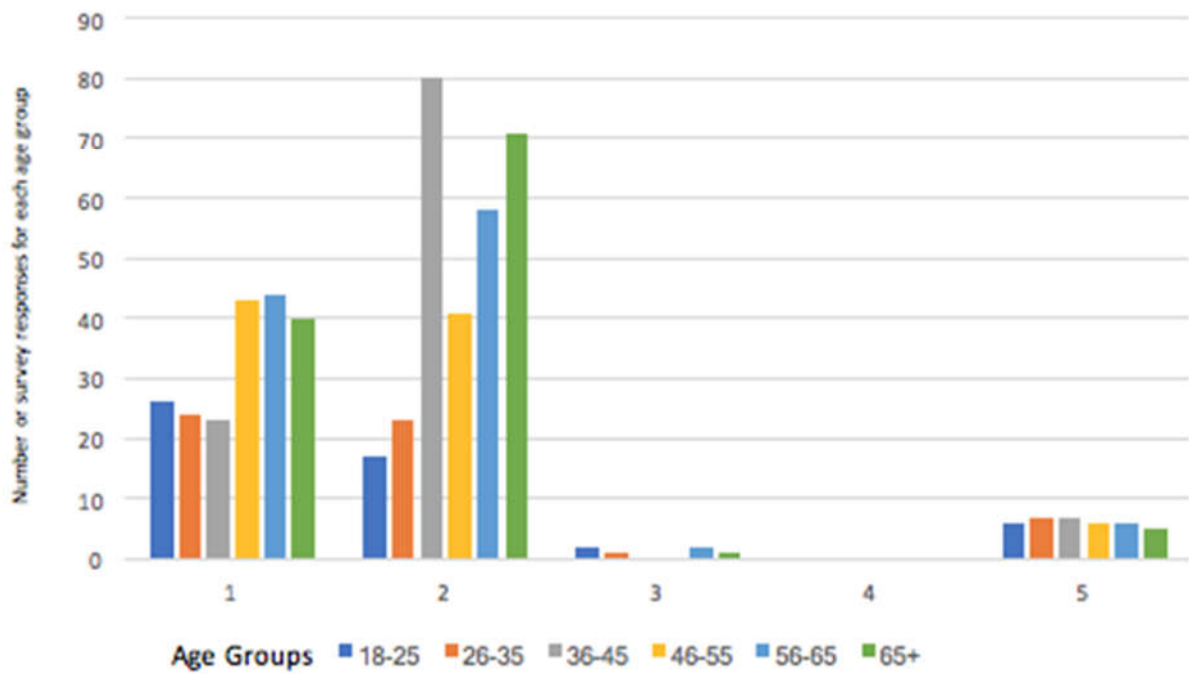
369 responses



14. How many children in the following age groups reside in your household?



15. How many adults in the following age groups reside in your household?



2017-Open Space Survey comparisons for 1994, 1999, 2004, 2009 and 2017

These trends identified by the TOSC are from select questions that have been repeated over the past 3 surveys (1994, 1999, 2004, 2009 and 2017). The reason we look at trends is to determine if residents feel Topsfield has changed, is changing, and how they would like it to change.

Survey Year	# Sent	# Returned	%
1994	1820	530	29%
1999	2027	548	27%
2004	2137	376	18%
2009	2176	406	19%
2017	2207	369	17%

The percentage number of survey returned for 2017 was slightly lower than for all previous surveys. Previous surveys had higher percentage returns since they were handed out freely at the post office and Village Shopping Center over several weekends. We thought online survey notices sent to all households would give a more uniform cross section of responses.

1) Do you consider Topsfield.

	1994	1999	2004	2009	2017
A rural Town	43%	42%	61%	55%	55%
A suburban Town	22%	23%	19%	26%	25%
A Town in transition, rural to suburban	34%	35%	20%	19%	17%

Topsfield residents continue the trend feeling we are still a rural town with fewer indicating we are in transition to be a suburban town.

2) Why did you move to Topsfield?

	% Important				
	1994	1999	2004	2009	2017
School System	88%	87%	72%	85%	76%
Proximity to Boston	63%	66%	46%	78%	50%
Affordability of Housing	59%	66%	29%	65%	24%
Town Character	91%	97%	77%	94%	79%
Public Safety	92%	83%	80%	81%	50%
Family	18%	22%	41%	64%	50%

There is a significant change in Affordability of Housing which is likely due to rising taxes and higher resale homes. People are less concerned about public safety.

5) What type of residential development do you feel should take place in Topsfield? Answer reflects the "Very Important" and "acceptable".

	1994	1999	2004	2009	2017
Elderly Housing	91%	83%	82%	82%	72%
Affordable Housing	54%	55%	59%	55%	36%
Apartments/Condominiums	20%	20%	32%	30%	25%
Single-family 2+ acre lots	90%	84%	71%	73%	76%
Single-family 1-acre lots	82%	70%	70%	80%	n/a
No residential development	50%	64%	*	48%	7%

* Not on questionnaire

For this year there was a significant decrease in Elderly, Affordable housing and Apartments/Condominiums. Residential development was much less important.

6) What type of commercial development is most acceptable to you?

	1994	1999	2004	2009	2017
Office Buildings/Parks	56%	54%	47%	40%	41%
Individual Retail Businesses	83%	82%	83%	90%	90%
Shopping Centers	12%	26%	25%	*	*
Auto Dealerships	7%	7%	9%	25%	22%
Fast Food Restaurants	7%	10%	15%	17%	15%
Full Service Restaurants	76%	70%	75%	75%	81%
No Commercial Development	73%	67%	*	*	*
Manufacturing	*	*	*	28%	22%
Services	*	75%	77%	72%	73%

There was no significant change over previous years.

9) How satisfied are you with recreation facilities in Town?

Answers include "very important" and "acceptable"

	1994	1999	2004	2009	2017
Children/Youth	87%	71%	47%	49%	92%
Adults	74%	74%	42%	49%	81%
Families	74%	75%	43%	51%	54%
Seniors	56%	71%	29%	31%	74%

There was a big change in the importance for Children/Youth, Adult and Senior recreational facilities. This change may be related to the Topsfield Linear Common and improved tot lots.

13) How long have you been a resident of Topsfield?

	1999	2004	2009	2017
Less than 5 years	21%	11%	14%	23%
5 - 10 years	18%	23%	20%	16%
10 - 20 years	22%	23%	23%	19%
More than 20 years	40%	44%	43%	43%

There has been a significant increase in new families moving in and a decrease in families living here from 5 – 20 years.

14) Do you have children? How many in each age category?

	1999	2004	2009	2017
Birth to 3 years	17%	11%	12%	11%
4 - 12 years	54%	40%	48%	31%
13 - 17 years	29%	49%	40%	13%

There has been a significant reduction in the number of children living in the household.

15) How many adults in the following age groups reside in your household?

	1999	2004	2009	2017
18 - 25	6%	10%	*	12%
26 - 35	11%	6%	6%	15%
36 - 45	29%	26%	20%	28%
46 - 55	21%	21%	21%	23%
56 - 65	14%	16%	21%	28%
Over 65	19%	22%	25%	30%

There has been an increase in all age categories over 18 living in the household.

Appendix B – Inventory of Lands

Legend:

Public Access: Y=Open Access, L=Limited Access, N= No Access

Zoning: ORA = Outlying Residential and Agricultural District, IRA = Inner Residential and Agricultural District, CR = Central Residential District, BH=Business Highway.

Degree of Protection: P=Permanently protected; OSDP = Land acquired through an Open Space Development Plan subdivision and deeded for conservation purposes; C = Cemetery; PB = Public Building/Facility; PP = Public Park; W=Wetland; N-not protected

Town Owned Land											
No.	Street Name	Land Area	Comments	Public Access	Zoning	Degree of Protection	Management	Current Use	Condition	Recreation	DCS Acquisition?
24	BLUEBERI	5.66	OPEN SPACE	L	ORA	P, OSDP	Topsfield	Not used	Good	Moderate	No
148	BOSTON ST	13.8	SLEDDING	Y	IRA	P	Topsfield	Sledding	Good	Active	No
210	BOSTON ST	1.07	BOSTON ST	Y	BH	P,C	Topsfield	Final Rest	Good	None	No
216	BOSTON ST	1.15	POLICE DEPT	Y	BH	PB	Topsfield	Gov	Good	None	No
279	BOSTON ST	20.43	HIGHWAY	Y	IRA	PB	Topsfield	Gov	Good	None	No
288	BOSTON ST	0.7	WATER TOWER	N	IRA	PB	Topsfield	Gov	Good	None	No
368	BOSTON ST	8.72	CONSERVATION	N	IRA	P	Topsfield	Not used	Good	Moderate	No
11	BROOKSIDE	1.38	WATER DRAIN	N	IRA	W	Topsfield	Gov	Good	None	No
50	CANDLEM	0.61	TAKING	L	IRA	PB	Topsfield	Not used	Good	None	No
78	CENTRAL	0.85	WATER	N	CR	W	Topsfield	Gov	Good	None	No
46	COLRAIN	0.02	TAKING	L	IRA	N	Topsfield	Not used	Good	None	No
58	COLRAIN	2.11	OPEN SPACE	Y	IRA	P,OSDP	Topsfield	Not used	Good	Poor	No
59	COLRAIN	4.59	OPEN SPACE	Y	IRA	P,OSDP	Topsfield	Not used	Good	Poor	No
86	EAST ST	2.06	TAKING	N	ORA	W	Topsfield	Not used	Good	Poor	No
13	GARDEN ST	0.8	WATER TOWER	N	ORA	PB	Topsfield	Not used	Good	None	No
32	GROVE ST	0.25	TAKING	D	CR	N	Topsfield	Not used	Good	None	No
8	HAVERHILL	47.91	PINE GROVE	Y	IRA	C	Topsfield	Final Rest	Good	Active	No
51	HAVERHILL	1.6	COVENTRY	L	IRA	P,OSDP	Topsfield	Not used	Good	Poor	No
124	HAVERHILL	132.7	PYE BROOK	Y	ORA	PP	Topsfield	Recreation	Excellent	Active	No
131	HAVERHILL	49.11	TOWN FC	Y	ORA	PB	Topsfield	Recreation	Good	Active	No
27	HIGH ST	1.94	FIRE STAT	Y	CR	PB	Topsfield	Gov	Good	None	No
138	HIGH ST	12.78	CAITLIN L	Y	CR/IRA	P, OSDP	Topsfield	Not used	Good	Moderate	No
255	HIGH ST	32.88	OPEN SPACE	Y	ORA	P, OSDP	Topsfield	Walking	Good	Good	No
114	IPSWICH	0.8	CONSERVATION	L	IRA	W	Topsfield	Not used	Good	Poor	No
191	IPSWICH	1.55	TAKING	L	ORA	P,W	Topsfield	Not used	Good	None	No
48	KINSMAN	0.33	OPEN SPACE	L	IRA	P, OSDP	Topsfield	Not used	Good	Poor	No
60	MAIN ST	11.3	PROCTOR	Y	CR	PB	Topsfield	School	Excellent	Active	No
65	MAIN ST	0.3	TOWN CC	Y	CR	PP	Topsfield	Recreation	Excellent	Active	No
80	MAIN ST	1.97	TOWN CC	Y	CR	PP	Topsfield	Recreation	Excellent	Active	No
83	MAIN ST	2.26	TOWN CC	Y	CR	PP	Topsfield	Recreation	Excellent	Active	No
29	MAPLE ST	0.7	BROOK	L	CR	P,W	Topsfield	Not used	Good	None	No

10	NORTH ST	64.31	WATER D	N	IRA	PB	Topsfield	Not used	Good	None	No
17	NORTH ST	18.9	KLOCK PA	Y	IRA	PP	Topsfield	Recreatio	Excellent	Active	No
250	PERKINS F	49.94	WATER D	N	IRA	PB	Topsfield	Not used	Good	None	No
277	PERKINS F	14.14	STEWARC	Y	IRA	PB	Topsfield	School	Excellent	Active	No
19	PHEASAN	13.72	OPEN SPA	L	ORA	P, OSDP	Topsfield	Not used	Good	Moderate	No
12	PROSPEC	0.6	CONSERV	L	CR	PCR	Topsfield	Not used	Good	Poor	No
			COMMISS								
196	ROWLEY I	0.78	SOUTH SI	Y	ORA	C	Topsfield	Final Rest	Good	None	No
1	SOUTH CC	1.03	LIBRARY	Y	CR	PB	Topsfield	Library	Excellent	Active/ In	No
38	STAGECO	0.37	WATER D	N	ORA	PB	Topsfield	Gov	Good	None	No
8	WEST COI	0.94	TOWN HA	Y	CR	PB	Topsfield	Gov	Fair	None	No
34	WILMOR	5.75	TAKING F	N	ORA	P,W	Topsfield	Not used	Good	None	No
			(WET)								

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Private Parcels – Chapter Lands				
NO	STREET NAME	LAND AREA	CH. LAND	COMMENTS
83	ASBURY ST	72.31	66.70	PORTION UNDER CH 61A
132	ASBURY ST	6.85	6.38	PORTION UNDER CH 61, 61A, 59
137	ASBURY ST	6.49	6.49	CH 61
147	ASBURY ST	33.21	33.21	CH 61 AND PCR
147	ASBURY ST	5.03	5.03	CH 61
147	ASBURY ST	1.02	1.02	CH 61 & PCR
150	ASBURY ST	39.27	39.27	CH 61 & PCR
154	ASBURY ST	1.95	1.95	CH 61
97	BOSTON ST	9.00	9.00	CH 61A
111	BOSTON ST	14.30	13.30	PORTION UNDER CH 61A
130	BOSTON ST	70.84	70.84	CH 61B & PCAR
180	BOSTON ST	11.50	11.50	CH 61B & PCAR
293	BOSTON ST	107.08	107.08	CH 61B
17	BRADSTREET LN	30.00	29.20	PORTION UNDER CH 61A & PCAR
43	CANTERBURY HILL RD	2.22	1.67	PORTION UNDER CH 61A
10	CROSS ST	12.20	12.20	CH 61B & PCAR
41	CROSS ST	155.72	145.96	PORTION UNDER CH 61A & 61B & PCAR
47	CROSS ST	10.09	8.09	PORTION UNDER CH 61B & PCAR
37	EAST ST	8.94	8.69	PORTION UNDER CH 61A
57	HIGH ST	7.05	7.05	CH 61A
278	HIGH ST	7.00	5.00	PORTION UNDER CH 61A
120	HILL ST	60.00	58.00	PORTION UNDER CH 61A
166	IPSWICH RD	3.38	3.38	CH 61A & PCR
74	NORTH ST	0.95	0.95	CH 61A
78	NORTH ST	0.92	0.92	CH 61A
82	NORTH ST	5.80	4.80	PORTION UNDER CH 61A
64	PERKINS ROW	9.80	8.80	PORTION UNDER CH 61A
203	PERKINS ROW	25.28	25.28	CH 61B
68	RIVER RD	100.00	92.91	PORTION UNDER CH 61B & PCAR
9	ROWLEY BRIDGE RD	14.90	14.90	CH 61B & PCAR
77	ROWLEY BRIDGE RD	120.52	120.52	CH 61B & CH 61
252	ROWLEY BRIDGE RD	35.06	31.46	PORTION UNDER CH 61A
70	SALEM RD	40.15	37.00	PORTION UNDER CH 61
128	SALEM RD	31.51	31.51	CH 61A
142	SALEM RD	26.44	26.44	CH 61A
22	WENHAM RD	7.89	5.89	PORTION UNDER CH 61B
16	WILDES RD	10.10	8.10	PORTION UNDER CH 61B
30	WILDES RD	42.15	40.15	PORTION UNDER CH 61B

Private Lands – Conservation Restrictions

NO	STREET NAME	LAND AREA	COMMENTS
27R	ASBURY ST	16.20	PCR ESSEX COUNTY GREENBELT
41R	ASBURY ST	6.00	PCR ESSEX COUNTY GREENBELT
51R	ASBURY ST	4.10	PCR ESSEX COUNTY GREENBELT
65R	ASBURY ST	6.30	PCR ESSEX COUNTY GREENBELT
137	ASBURY ST	23.20	ESSEX COUNTY GREENBELT
147	ASBURY ST	33.21	CH 61 & PCR
147	ASBURY ST	1.02	CH 61 & PCR
150	ASBURY ST	39.27	CH 61 & PCR
37	BARE HILL RD	4.00	ESSEX COUNTY GREENBELT
130	BOSTON ST	70.84	CH 61B & PCAR
180	BOSTON ST	11.50	CH 61B & PCAR
17	BRADSTREET LN	30.00	PORTION UNDER 61A & PCAR
29	CAMPMEETING RD	2.60	PCR ESSEX COUNTY GREENBELT
33	CAMPMEETING RD	6.76	PCR ESSEX COUNTY GREENBELT
26	COPPERMINE RD	1.67	CONSERVATIO N
10	CROSS ST	12.20	COMMISSION CH 61B & PCAR
41	CROSS ST	155.72	PORTION UNDER CH 61A & B & PCAR
47	CROSS ST	10.09	PCAR
4	EVERGREEN LN	0.85	DESIGNATED OPEN SPACE
52	FOX RUN RD	1.14	OPEN SPACE
23	GARDEN ST	2.72	ESSEX COUNTY GREENBELT
1	HICKORY LN	35.46	DESIGNATED OPEN SPACE
7	HICKORY LN	1.48	DESIGNATED OPEN SPACE
50	HOWLETT ST	5.00	UNDER CONSERVATIO N
166	IPSWICH RD	3.38	COMMISSION CH 61A & PCR
166	IPSWICH RD	0.45	PCR ESSEX COUNTY GREENBELT
180	IPSWICH RD	6.18	PCR ESSEX COUNTY GREENBELT

180A	IPSWICH RD	0.18	PCR ESSEX COUNTY GREENBELT
182	IPSWICH RD	1.04	PCR ESSEX COUNTY GREENBELT
231	IPSWICH RD	5.50	ESSEX COUNTY GREENBELT
241	IPSWICH RD	7.40	ESSEX COUNTY GREENBELT
290	IPSWICH RD	8.74	ESSEX COUNTY GREENBELT
25	JOHNS LN	38.20	PCR ESSEX COUNTY GREENBELT
16	LOCKWOOD LN	10.28	ESSEX COUNTY GREENBELT
17R	MORNINGSIDE DR	1.61	CONSERVATIO N
19R	MORNINGSIDE DR	1.62	COMMISSION CONSERVATIO N
21R	MORNINGSIDE DR	1.62	COMMISSION CONSERVATIO N
25R	MORNINGSIDE DR	1.66	COMMISSION CONSERVATIO N
27R	MORNINGSIDE DR	1.67	COMMISSION CONSERVATIO N
29R	MORNINGSIDE DR	6.18	COMMISSION ESSEX COUNTY GREENBELT
33	MORNINGSIDE DR	7.34	ESSEX COUNTY GREENBELT
86	NORTH ST	10.60	ESSEX COUNTY GREENBELT
90	NORTH ST	2.64	ESSEX COUNTY GREENBELT
96R	NORTH ST	2.49	PCR ESSEX COUNTY GREENBELT
100	NORTH ST	2.49	ESSEX COUNTY GREENBELT
104	NORTH ST	1.55	PCR ESSEX COUNTY GREENBELT
303	PERKINS ROW	36.60	PCR ESSEX COUNTY GREENBELT
9	RIVER RD	2.25	PCAR ESSEX COUNTY

15	RIVER RD	2.27	GREENBELT PCAR ESSEX COUNTY
29	RIVER RD	3.02	GREENBELT PCAR ESSEX COUNTY
45	RIVER RD	31.75	GREENBELT PCAR ESSEX COUNTY
68	RIVER RD	100.00	GREENBELT PCAR ESSEX COUNTY
82	RIVER RD	12.53	GREENBELT PCAR ESSEX COUNTY
102	RIVER RD	10.10	GREENBELT PCAR ESSEX COUNTY
9	ROWLEY BRIDGE RD	14.90	GREENBELT PCAR ESSEX COUNTY
10	ROWLEY BRIDGE RD	3.00	GREENBELT PCAR ESSEX COUNTY
51	ROWLEY BRIDGE RD	3.50	GREENBELT ESSEX COUNTY
59	ROWLEY BRIDGE RD	2.18	GREENBELT ESSEX COUNTY
64	SALEM RD	8.28	GREENBELT PCR ESSEX COUNTY
135	SALEM RD	2.86	GREENBELT ESSEX COUNTY
15	SCHOOL AV	2.77	GREENBELT ESSEX COUNTY
238	WASHINGTON ST	5.59	GREENBELT ESSEX COUNTY GREENBELT

Salem and Beverly Water Supply Board

NO	STREET NAME	LAND AREA	COMMENTS
3	BOSTON ST	14.02	PUTNAMVILLE RESERVOIR
56	BOSTON ST	107.14	FUTURE RESERVOIR

153	BOSTON ST	1.00	
44	MCLEOD LN	130.00	FUTURE RESERVOIR
71	ROWLEY BRIDGE RD	2.72	RESERVOIR RIVER ACCESS
2	VALLEY RD	14.89	CANAL

Willowdale State Forest

NO	STREET NAME	LAND AREA
55	ROWLEY ROAD	24.50
62	EAST ST	18.92
61	EAST ST	21.75
262	IPSWICH RD	61.00
0	GRAVELLY BROOK RD	0.62

Bradley Palmer State Forest

NO	STREET NAME	LAND AREA
28	ASBURY ST	6.10
24	ASBURY ST	2.02
37	ASBURY ST	20.91

Massachusetts Audubon Society

NO	STREET NAME	LAND AREA
239	PERKINS ROW	50.00
87	PERKINS ROW	157.37
0	VALLEY RD REAR	45.02
0	VALLEY RD REAR	11.70

Appendix C – Vegetation Inventory

Plant life includes:

Early saxifrage, water hemlock, false hellebore, skunk cabbage, colt's foot, hepatica, fumitory, wood and rue anemone, bloodroot, jack-in-the-pulpit, marsh marigold, shad blow, trout lily, benzoin, violets (including yellow, woolly, white, Canada white, many varieties of blue), Dutchman's breeches, partridge berry, Quaker ladies, dandelions, Canada lily, trillium, wild lily of the valley, gold thread, American star flower, wild geranium, wild oats, Solomon's seal and false Solomon's seal, wintergreen, rattlesnake plantain, pipsissiwa, swamp azalea, rhododendron, wood betony, blue flag, wild red columbine, blue-eyed grass, orchids (including lady's slipper and lady's tresses), buttercups, ox eye daisies, hawkweed, chicory, Queen Anne's lace, strawberries, blueberries, black raspberries, cranberries, bunchberry, bear berry, elderberry, bittersweet, Virginia creeper, carrion flower, greenbriar, beachplum, hobble bush, blue flag iris, leather leaf, jersey tea, buttonbush, spiderwort, steeple bush, rattlebox, thermopsis, tansy, yarrow, mullein, roses, knapweed, blazing star, milkweed, pokeweed, evening primrose, butter & eggs, spreading dogbane, daisy fleabane, purple vetch, cinquefoil, self heal, golden ragwort, bastard toadflax, frost weed, turtlehead, clover, celandine, catnip, clintonia, dame's racket, tall meadow rue, deptford pink, ragged robin, bouncing bet, bladder campion, bindweed, St. John's wort, loosertrife, asters, goldenrods, blue vervain, boneset, Joe Pye weed, pearly everlasting, brown-eyed susans, nightshade, bayberry, sweet fern, jewelweed, rattlesnake grape, polypody, Christmas, royal interrupted, marsh, ostrich, New York, cinnamon, hay scented, bracken, sensitive, fringe gentian, pitcherplant, cardinal flower, mosses, ground pine, Indian pipe, beechdrops.

Hardwoods include:

White, red, and black oak, sugar and swamp maple, white and gray birch, pignut and shagbark hickory, beech, white ash, American elm, hornbeam, black locust, cork and green ash.

Conifers include:

White, red, and pitch pine, hemlock, blue spruce, white and red cedar, juniper, tamarack.

Appendix D – Fish and Wildlife Inventory

Mammals include:

Opossum, short-tailed Shrew, Cinereus Shrew, Hairy-tailed Mole, Star-nosed Mole, Little Brown Myotis, Big Brown Bat, Red Bat, Eastern Pipistrelle, Eastern Cottontail, Snowshoe Hare, Eastern Chipmunk, Woodchuck, Red Squirrel, Gray Squirrel, Northern and Southern Flying Squirrel, Beaver, Deer Mouse, White-footed Deermouse, House Mouse, Brown Rat, Meadow Jumping Mouse, Meadow and Southern Red-backed Voles, Muskrat, Coyote, Red Fox, Gray Fox, Raccoon, Martens (Fisher cat), Ermine, Mink, Striped Skunk, River Otter, White-tailed Deer.

Fish include:

* Brook Trout, *Rainbow Trout, *Brown Trout, Lake Trout, Chain Pickerel, White Perch, Yellow perch, Tessellated darter, Pumpkinseed Sunfish, Banded Sunfish, Redbreast Sunfish, Green Sunfish, Bluegill, Black Crappie, White Crappie, Largemouth Bass, Brown Bullhead, Yellow Bullhead, Golden Shiner, American Eel, Common Carp, Bridle Shiner, Common Shiner, Fallfish, White Sucker, Creek Chubsucker, Banded Killifish, Mummichog, Swamp Darter.

* Stocked by the state.

Reptiles include:

Ring-necked Snake, Smooth Greensnake, Dekay's Brownsnake, North American Racer, Northern Watersnake, Milk Snake, Red-bellied Snake, Ribbon Snake, Common Garter Snake, Snapping Turtle, Painted Turtle, Musk Turtle, Blanding's Turtle, Spotted Turtle, Eastern Box Turtle, Wood Turtle

Amphibians include:

Bullfrog, Green Frog, Leopard Frog, Pickerel Frog, Wood Frog, Gray Tree Frog, Spring Peeper, Eastern Spadefoot American Toad, Fowler's Toad, Spotted Salamander, Blue-spotted Salamander, Red-backed Salamander, Northern Dusky Salamander, Four-toed Salamander, Northern Two-lined Salamander, Red-spotted Newt, Eastern Newt.

Birds include:

Permanent Resident

Cooper Hawk, Sharp-shinned Hawk, Red Tailed Hawk, Barred Owl, Great Horned Owl, Wild Turkey, Mourning Dove, Pileated Woodpecker, Downy Woodpecker, Hairy Woodpecker, Red-bellied Woodpecker, Blue Jay, American Crow, Black-capped Chickadee, Tufted Titmouse, White-breasted Nuthatch, Red-breasted Nuthatch, Brown Creeper, House Sparrow, Mallard, Rock Dove, Northern Mockingbird, European Starling, Northern Cardinal, Song Sparrow, House Finch, Purple Finch, American Goldfinch, Carolina Wren, Winter Wren

Summer Residents

American Bittern, Least Bittern, Great Egret, Turkey Vulture, Canada Goose, Mallard, Blue-winged Teal, Wood Duck, Red-Shouldered Hawk, Broad-Winged Hawk, American Kestrel, Barn Owl, Virginia Rail, Killdeer, Common Moorhen, Whip-poor-will, Chimney Swift, Ruby-throated Hummingbird, Belted Kingfisher, Northern Flicker, Eastern Wood Pewee, Willow Flycatcher, Least Flycatcher, Eastern Phoebe, Great Crested Flycatcher, Eastern Kingbird, Yellow-throated Vireo, Warbling Vireo, Red-eyed Vireo, Purple Martin, Tree Swallow, Barn Swallow, House Wren, Marsh Wren, Golden-crowned Kinglet, Ruby-crowned Kinglet, Blue-gray Gnatcatcher, Eastern Bluebird, Veery, Hermit Thrush, Wood Thrush, American Robin, Gray Catbird, Cedar Waxwing, Blue-winged Warbler, Golden-winged Warbler, Nashville Warbler, Chestnut-sided Warbler, Yellow Warbler, Blackburnian Warbler, Pine Warbler, Black-and-white Warbler, American Redstart, Ovenbird, Common Yellowthroat, Canada Warbler, Scarlet Tanager, Eastern Towhee, Chipping Sparrow, Song Sparrow, Rose-breasted Grosbeak, Indigo Bunting,

Red-winged Blackbird, Common Grackle, Brown-headed Cowbird, Baltimore Oriole, Purple Finch

Winter Residents

Golden-crowned Kinglet, American Tree Sparrow, Fox Sparrow, White-throated Sparrow, Dark-eyed Junco, Pine Siskin

Appendix E – Review Letters of Approval *(to be updated)*

- Board of Selectmen
- MAPC
- Conservation Commission
- Planning Board
- ZBA
- Recreation Committee
- Board of Health
- Recreation Committee

Selectmen's Letter

Letter from 2010 – to be updated



TOWN OF TOPSFIELD
BOARD OF SELECTMEN

8 West Common Street, Topsfield, Massachusetts 01983

29 December 2010

Joseph Geller, Chairman
Topsfield Open Space Committee
Town Hall
8 West Common Street
Topsfield, MA 01983

Dear Mr. Geller,

On behalf of the Topsfield Board of Selectmen, be advised that the Board approves the 2010 "Topsfield Open Space Plan" dated December 29, 2010 which your committee has prepared for the Department of Conservation and Recreation.

We recognize this Open Space Plan is dynamic and will be periodically updated. We acknowledge your comments about the Open Space Forum in Section 10 and appreciate your intent to add questions concerning Topsfield's available recreational land and activities in future surveys.

Thanks to the members of your committee for all their work in preparing this current plan.

Yours truly,

For the Board of Selectmen

Richard Gandt
Chairman

MAPC

Letter from 2010 – to be updated



August 24, 2010

Joe Geller
Chairman, Topsfield Open Space Committee
Geller MicroAnalytical Laboratory, Inc.
426e Boston Street
Topsfield, MA 01983

Dear Mr. Geller:

Thank you for submitting the Topsfield Open Space and Recreation Plan 2010 to the Metropolitan Area Planning Council (MAPC) for review.

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

The following are MAPC's recommendations for amendments to the Topsfield Open Space and Recreation Plan that will serve to bring a more regional perspective to the plan.

Subregion - The open space plan does not mention that Topsfield is a member of the North Shore Task Force (NSTF) which is one of eight MAPC subregions. NSTF is a group of 16 communities that meet regularly to discuss issues of common interest and is an excellent forum for discussing regional open space issues and opportunities.

Consistency with *MetroFuture*

MetroFuture is the official regional plan for Greater Boston, adopted consistently with the requirements of Massachusetts General Law. The plan includes goals and objectives as well as 13 detailed implementation strategies for accomplishing these goals. We encourage all communities to become familiar with the plan by visiting the web site at <http://www.metrofuture.org/>.

We are pleased to see that *MetroFuture* is discussed on page 35. We note that the previous regional development plan, Metro Plan 2000 is also discussed. Because the current plan is *MetroFuture* this plan should be highlighted in more detail. Overall, we see many positive

60 Temple Place, Boston, MA 02111 • 617-451-2770 • Fax 617-482-7185 • www.mapc.org

Jay Ash, *President* • Michelle Ciccolo, *Vice-President* • Marilyn Contreas, *Secretary* • Grace S. Shepard, *Treasurer* • Marc Draisen, *Executive Director*

Conservation Commission

Letter from 2010 – to be updated



TOWN OF TOPSFIELD

Conservation Commission

8 West Common Street, Topsfield, Massachusetts 01983

September 13, 2010

Joe Geller, Chairman, Open Space Committee
Town Hall
8 West Common Street
Topsfield, MA 01983

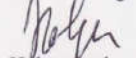
Re: Open Space Plan for 2010

Dear Joe and the OSC;

The Topsfield Conservation Committee has participated in the preparation of the 2010 Open Space Plan and has also reviewed the original draft. Editorial comments relative to the draft were submitted to you at the Public hearing held by the OSC and subsequent to that time. These have been incorporated into the final draft version by you.

At this time the TCC endorses the 2010 Open Space Plan prepared by the OSC as a thoughtful and comprehensive effort to document the open space aspirations of the Town of Topsfield.

With best regards;


Holger Luther
Member, TCC

Planning Board
Letter from 2010 – to be updated



TOWN OF TOPSFIELD
PLANNING BOARD

8 West Common Street, Topsfield, Massachusetts 01983

September --, 2010

Mr. Joseph Geller, Chairman
Topsfield Open Space Committee
Town Hall
8 West Common Street
Topsfield, MA 01983

Dear Mr. Geller:

Congratulations to the members of the Open Space Committee for again providing the Town with a very thorough and valuable updated Open Space Plan. The Planning Board has voted to approve the updated 2010 Open Space Plan in its entirety and will incorporate its goals and objectives as part of the Board's master planning process.

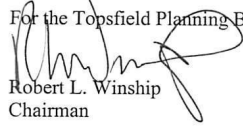
During the upcoming year, the Planning Board once again will be updating the Town's Community Development Strategy which is an integral part of the Board's statutory responsibilities of planning for the future use of land and resources within the Town of Topsfield. The survey performed by the Committee as part of this plan has clearly defined that the residents of Topsfield consider the preservation of the rural character of the Town as their highest priority despite the current economic climate and pressures of development to create a more diversified tax base.

As part of the planning process, the Planning Board will continue its on-going review and examination of the Town's Zoning By-laws, General By-laws, Rules & Regulations for the Subdivision of Land, and accompanying guidelines as a means of charting Topsfield's future and preserving open space within the Town. The Board has implemented several key elements based on the goals and objectives of the 2004 Open Space Plan that include the development of the Stormwater and Erosion Control By-law, a revised Open Space Residential By-law, the Scenic Road Overlay District, Low Impact Guidelines, and the creation of a new mixed use zoning district, the "Business Highway District North". Through its special permitting process, the Planning Board has been able to preserve areas of open space within three major housing developments.

The Planning Board recognizes the tremendous effort and time consuming work of the members of the Open Space Committee in the development of the 2010 Open Space Plan, and the Board will once again incorporate these goals and objectives within its on-going planning process for the Town of Topsfield.

Very truly yours,

For the Topsfield Planning Board


Robert L. Winship
Chairman

ZBA

Letter from 2010 – to be updated



TOWN OF TOPSFIELD

ZONING BOARD OF APPEALS

8 West Common Street, Topsfield, Massachusetts 01983

September 28, 2010

Mr. Joseph Geller, Chairman
Topsfield Open Space Committee
Town Hall
8 West Common Street
Topsfield, MA 01983

Dear Mr. Geller:

Congratulations to the members of the Open Space Committee for again providing the Town with a very thorough and valuable updated Open Space Plan. The Zoning Board of Appeals endorses the plan and as such recognizes the importance of the plan in setting goals and objectives for the preservation of open space within the Topsfield community.

This Plan will lay a foundation for the Town's on-going land use planning process. Although the Zoning Board's role is to hear appeals with respect to permits and grant variances providing relief, the members are cognizant of the goals and objectives of preserving the Town's rural character as so thoroughly summarized in the 2010 updated Open Space Plan. This Board understands that continuing review and examination of the Town's Zoning By-laws is one of the most critical actions that needs to take place within the on-going planning process in order to insure the protection of the Town's rural character and provide protected open space to the residents of Topsfield.

The Zoning Board of Appeals recognizes the tremendous effort and time consuming work of the members of the Open Space Committee in the development of the 2010 Open Space Plan, and thanks the volunteer members for providing the Town with this important planning tool.

Very truly yours,

For the Topsfield Board of Appeals

Robert J. Moriarty,
Chairman

Recreation Committee

Letter from 2010 – to be updated



Town of Topsfield

TOPSFIELD, MASSACHUSETTS

Recreation Committee

October 8, 2010

Mr. Joseph D. Geller, Chairman
Topsfield Open Space Committee
Town Hall
8 West Common Street
Topsfield, Massachusetts 01983

Dear Joe:

The Topsfield Recreation Committee has reviewed the proposed 2010 Topsfield Open Space Plan. We were pleased to participate in its creation and feel it accurately portrays the existing conditions in Topsfield and the goals listed are in the Town's best interest. This committee will work diligently to achieve them.

Specifically, we will work on enhancing the trail system in Topsfield working with the Rail Trail Committee and on our own, and creating educational non-competitive recreational programs for our residents.

Regards,

Stephen Powers
Chairman, Topsfield Recreation Committee

Board of Health

Letter from 2010 – to be updated



TOWN OF TOPSFIELD

Board of Health

8 West Common Street, Topsfield, Massachusetts 01983
(978) 887-1520/Fax (978) 887-1521



December 30, 2010

Mr. Joe Geller
Chairman, Topsfield Open Space Committee
Town Hall
8 West Common Street
Topsfield, MA 01983

Dear Mr. Geller:

The Topsfield Board of Health supports the goals and objectives of the
Topsfield Open Space and Recreation Plan.

Sincerely,

A handwritten signature in black ink that reads "John Coulon".

Topsfield Board of Health
John Coulon, R.S., Health Agent
health@topsfeld-ma.org

Appendix F – Management Planning for Municipal Conservation Areas

NOT APPLICABLE TO TOWN OF TOPSFIELD

ADA ACCESS SELF EVALUATION

Topsfield is fortunate to have a variety of open space available for active and passive use. Some of this space is accessible to people with disabilities. Goal F, listed in Section 8 (Goals and Objectives) is to “increase ADA accessibility for Topsfield Open Space and Recreation Facilities”. Topsfield has made progress in this respect. Pye Brook Park was created with people with disabilities in mind. The Topsfield Playground Committee was created in 2008 to construct, refurbish, and modernize children’s playgrounds. The Topsfield Rail Trail, which is a work in progress, is being constructed with the consideration of the needs of people with disabilities. Topsfield hopes to expand accessibility of our recreational areas to people with disabilities.

Topsfield Recreation Areas

Property	Usage	Disability accommodation
Klock Park	Athletic Fields	Designated handicapped parking. Fields are accessible to people with disabilities.
Pye Brook Park	Athletic Fields, Equestrian Park, Disc Golf Course, Toddler Play Area, Walking Trail	Designated handicapped parking. People with disabilities accessible wooded picnic area, with accessible picnic tables. Disc golf course and walking trail, not wheelchair accessible.
Proctor School	Athletic Fields, Basketball court, Tennis Courts, Multiple Play Structures	All accessible.
Steward School	Softball Field, Tennis Courts, Multiple Play Structures	All accessible.
Emerson Field	Athletic Fields	No handicapped parking or accommodations for people with disabilities.
Topsfield Rail Trail	Walking/Biking Path	Being built under MassDOT Chapter 6 guidelines for people with disabilities.
Hood Pond	Beach/Swimming Area	No provisions for people with disabilities.
Bare Hill Trail	Walking Trail, Picnic Area	Not handicap accessible
Sledding Hill	Snow Sledding	Not handicap accessible



TOWN OF TOPSFIELD

BOARD OF SELECTMEN

8 West Common Street, Topsfield, Massachusetts 01983

26 July 2011

Joseph Geller, Chairman
Topsfield Open Space Committee
c/o Town Hall
8 West Common Street
Topsfield, MA 01983

Dear Mr. Geller:

Please be advised that the duly appointed ADA Coordinator for the Town of Topsfield is Jennifer Collin-Brown.

Sincerely,

Virginia L. Wilder
Town Administrator



TOWN OF TOPSFIELD

ADA COORDINATOR

8 West Common Street, Topsfield, Massachusetts 01983

26 July 2011

Joseph Geller, Chairman
Topsfield Open Space Committee
c/o Town Hall
8 West Common Street
Topsfield, MA 01983

Dear Mr. Geller:

As you have requested, attached are excerpts from the Town of Topsfield Personnel Rules, Regulations and Procedures as they relate to the Town's ADA Policy and Grievance Procedure.

Sincerely,

Jenifer Collins-Brown
MS, OTR/L

Jenifer Collins-Brown
Topsfield ADA Coordinator

Excerpts from the Town of Topsfield Personnel Rules, Regulations and Procedures

5.3 Americans with Disabilities Act

It is the policy of the Town to comply with requirements of the regulations contained in the U.S. Americans with Disabilities Act of 1990. This policy applies to all employees of the Town excluding those employees under the supervision and control of the School Committee.

The Town will not discriminate against people with disabilities in any employment practices or in terms, conditions or privileges of employment, including, but not limited to: application, testing, hiring, assignment, evaluation, disciplinary action, training, promotion, medical examination, layoff/recall, termination, compensation, leaves or benefits.

The Town has and will continue to establish occupational qualifications for each position, including the education, skills, and work experience required, and the physical, mental and environmental standards necessary for job performance, health, and safety. Such standards are job-related and consistent with business necessity.

The Town will provide reasonable accommodation to the known physical or mental limitations of a qualified applicant or employee unless such accommodation will impose undue hardship on the Town. The Town will provide reasonable accommodation:

1. To ensure equal employment opportunity in the application process
2. To enable a qualified individual with a disability to perform the essential functions of the job
3. To enable an employee with a disability to enjoy equal benefits and privileges of employment.
4. The Town need not provide reasonable accommodation for an individual who is otherwise not qualified for a position.
5. The duty to provide reasonable accommodation is on-going, and may arise any time an employee's job changes.
6. It is the obligation of the individual with the disability to request the accommodation.
7. If the cost of providing the accommodation is determined to meet the criteria of undue hardship on the Town, the affected individual will be offered the opportunity to provide the accommodation or partial accommodation him or herself.

Some examples of reasonable accommodation include, but are not limited to, the following:

1. Making facilities readily accessible and usable;
2. Restructuring a job by reallocating or distributing marginal job functions;
3. Altering when or how an essential job function is performed;
4. Creating part-time or flexible schedules;
5. Obtaining or modifying equipment or devices;
6. Providing qualified readers or interpreters;
7. Permitting the use of accrued or unpaid leave for treatment; and,
8. Providing reserved parking.

When attempting to identify what is a reasonable accommodation, appointing authorities and department managers should do the following:

1. Examine the particular job involved, determining its purpose and its essential functions.
2. Consult with the individual with the disability to find out his or her specific physical or mental abilities and limitations.
3. In consultation with the individual, identify potential accommodations and assess how effective each would be.
4. If an individual requests an accommodation which the appointing authority or department head considers to be unnecessary, the department head may ask for written documentation from a physician or other professional with knowledge of the individual's functional limitations.
5. The determination that any reasonable accommodation represents an undue hardship will be made by the Town Administrator or his/her designee.

No pre-employment inquiries may be made about an applicant's disability. This prohibition does not prevent an employer from obtaining necessary information regarding an applicant's qualifications, including medical information necessary to assess such qualifications and to ensure health and safety on the job. Before making a job offer, the Town may ask questions about an applicant's ability to perform specific job functions and may make a job offer that is conditioned on satisfactory results of a post-offer medical examination or inquiry. The Town may not make inquiries about specific disabilities. Questions which may not be asked during a pre-employment interview include (but are not limited to):

1. Have you ever had, or been treated for any of the following conditions?
2. Please list any conditions or diseases for which you have been treated in the past three years.
3. Have you ever been hospitalized? If so, for what conditions?
4. Have you ever been treated by a psychiatrist or psychologist? If so, for what condition?
5. Have you ever been treated for any mental condition?
6. How many days were you absent from work because of illness last year?
7. Do you have any disabilities or impairments which may affect your performance in the position?
8. Are you taking any prescription drugs?
9. Have you ever been treated for drug addiction or alcoholism?
10. Have you ever filed a workers' compensation claim?

In addition, these questions may not be asked of a previous employer or other reference provider for an applicant during reference checks. In addition, the hiring manager may not ask the reference provider about the applicant's:

1. Disability;
2. Illness; or,
3. Workers' compensation history.

Even if the applicant is qualified to perform the job, the Town may deny employment if such employment would pose a direct threat to the health and safety of the individual or others, if such threat cannot be eliminated through reasonable accommodation. Such determination must be made by the Town Administrator or his/her designee after careful review of the circumstances.

An employee who is an alcoholic is considered to be a person with a disability under the terms of the ADA. However, the Town may discipline, discharge or deny employment to an alcoholic

whose use of alcohol adversely affects job performance or conduct to the extent that he or she is "not qualified" for the position.

Persons addicted to drugs, but who are no longer using drugs illegally and who are receiving treatment for drug addiction, or who have been rehabilitated successfully, are protected from discrimination by the ADA. However, the Town will discharge or deny employment to current illegal users of drugs, in accordance with policies established herein. The Town may ask questions regarding the use of alcohol or illegal use of drugs. However, the employer may not ask whether the applicant is a drug addict or alcoholic, or whether he/she has ever been in a drug or alcohol rehabilitation program.

Violation of this policy will lead to appropriate disciplinary action up to and including termination from Town Service.

The Town's grievance procedure for discrimination based on disability is contained in Section 5.4 below.

5.4 Discrimination Grievance Procedure

The purpose of this procedure is to encourage local resolution of grievances concerning employment. It is important to note that grievants are not required to exhaust the Town's procedures prior to filing a state or federal complaint or taking court action.

Anyone who feels that he or she has been discriminated against by the Town on the basis of race, sex, color, disability, religion, national origin, sexual orientation or age in employment practices may file a grievance.

Grievances should be in writing and should include information about the alleged discrimination such as name, address, phone number of grievant and location, date and description of the problem. Reasonable accommodations, such as personal interviews or a tape recording of the complaint will be made available for persons with disabilities who are unable to submit a written complaint.

The grievant should first attempt to resolve the grievance at the level of the department manager. The department manager will notify the Town Administrator if such a grievance is submitted. If the grievance is not resolved to the satisfaction of the grievant, or if the department manager lacks authority or jurisdiction to correct the problem, the grievance should be submitted by the grievant and or his/her designee as soon as possible to the Town Administrator.

Within 15 calendar days after receipt of the grievance, the Town Administrator will meet with the grievant to discuss the grievance and possible resolutions. Within 15 calendar days after the meeting, the Town Administrator will respond to the grievant in writing, or, where appropriate, in a format accessible to the grievant such as audio tape. The response will explain the position of the Town and may offer options for substantive resolution of the grievance. As appropriate, the recommendation may contain disciplinary action where illegal or inappropriate conduct is disclosed. The Town Administrator, in consultation with the respective Department Head and Board of Selectmen, will provide a final review, conclusion and course of action as may be appropriate including any related disciplinary action up to and including discharge.

All grievances received by the Town Administrator and responses from same, will be kept by the Town for at least three (3) years. Such documents will remain strictly confidential.

This grievance procedure is meant to be informal, and cannot be legally binding on either part. Any grievance or complaint involving existing or threatened civil or criminal litigation may not be addressed using this informal procedure.

No retaliatory action will be taken against those persons who file complaints of discrimination on the basis of race, sex, color, disability, religion, national origin, sexual orientation, or age, or against individuals who cooperate in such investigations.

Maps

Map 1: Regional Context

Map 2 – Environmental Justice Populations

Map 3 – Zoning Map

Map 4 – Soils and Geologic Features

Map 5 – Unique Features

Map 6A – Water Resources and Flood Hazards

Map 6B – Water Resources Regulated Areas

Map 7 – Inventory of Open Space

Map 8 -- Action Plan Map

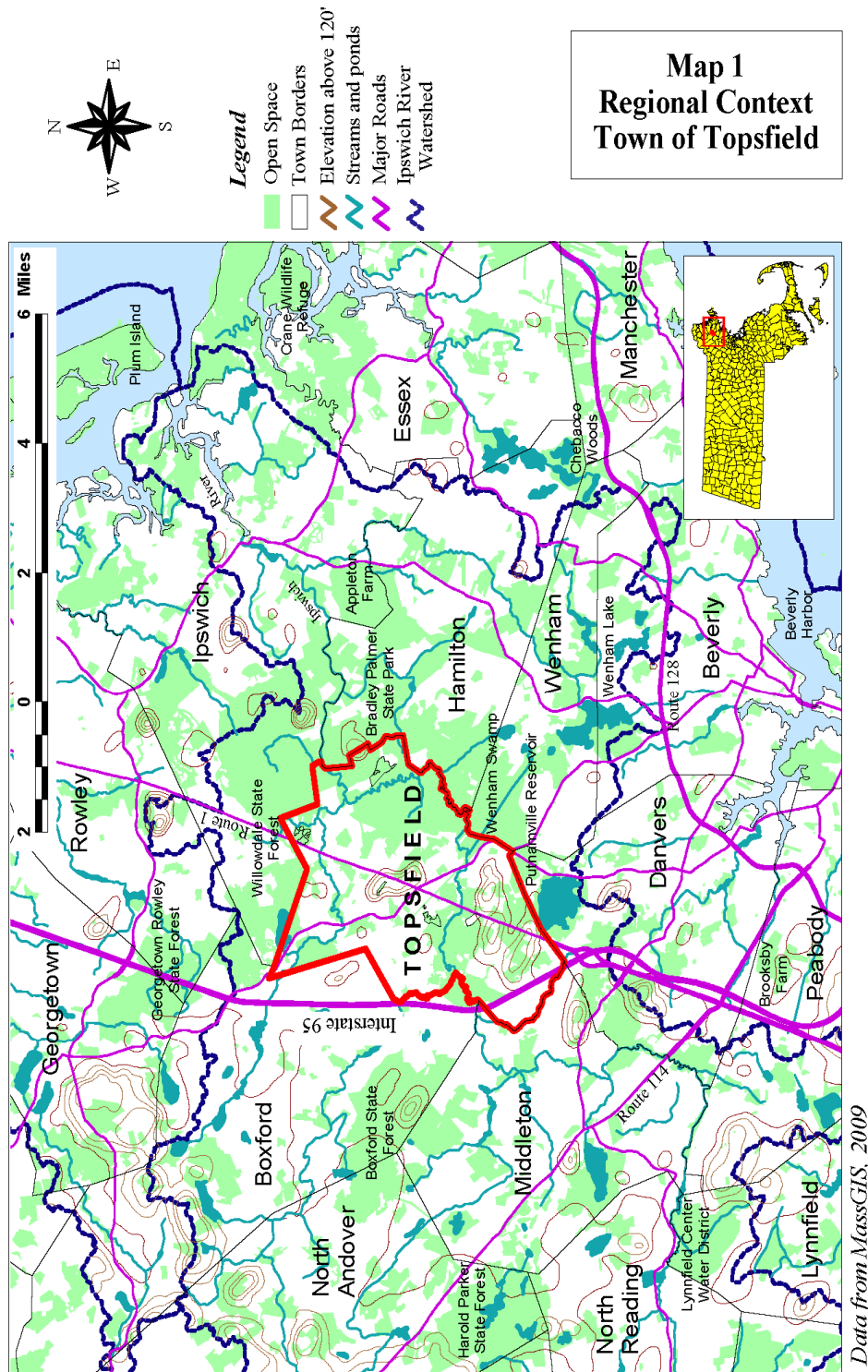
Map 9 - Topsfield Farmlands

Map 10 – Inventory of Recreation Areas

Map 11 - Topsfield's Public Trails

Map 12 – Topsfield's Interconnected Trails

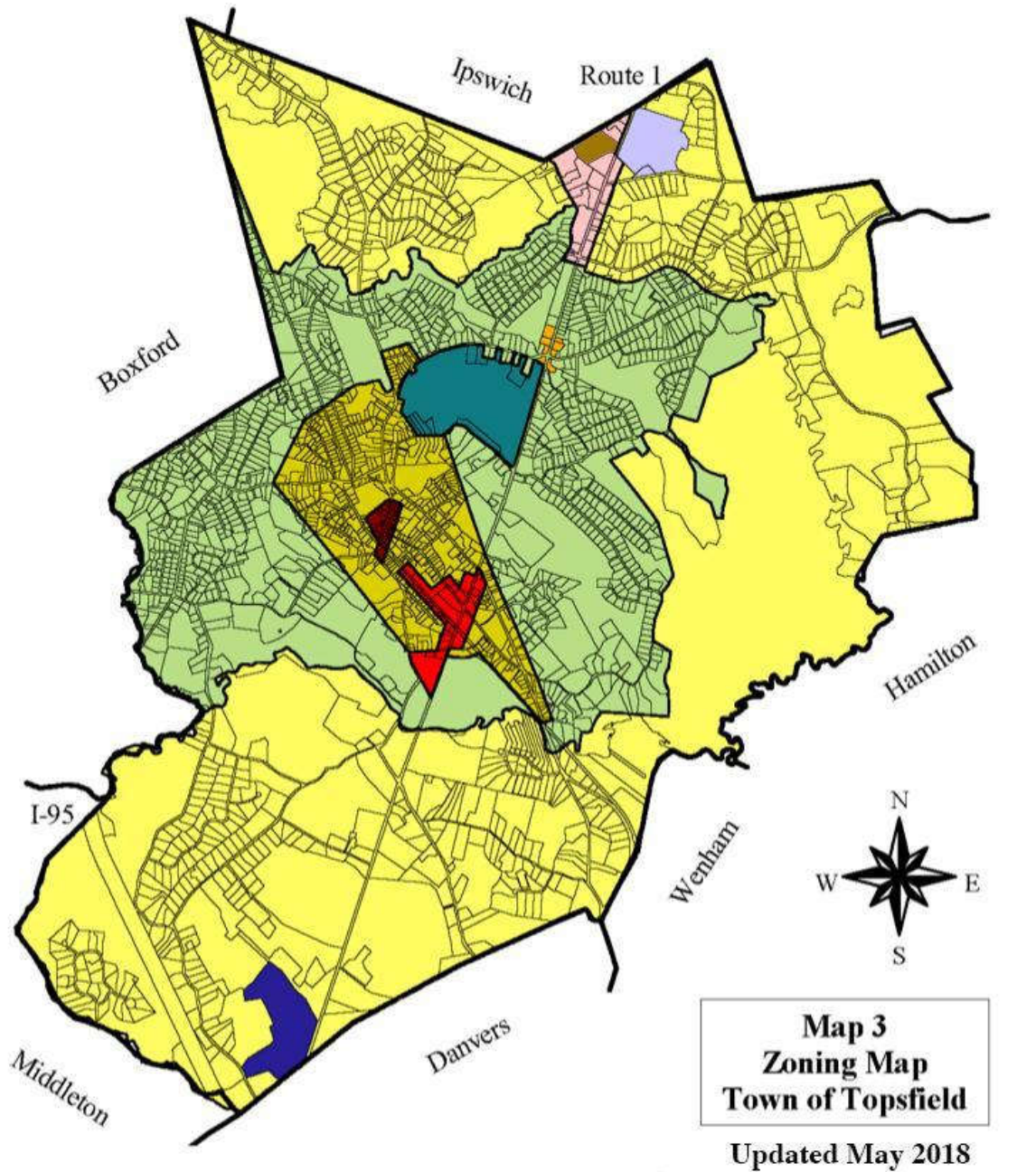
Map 1 - Regional Context Map



Map 2 – Environmental Justice Populations

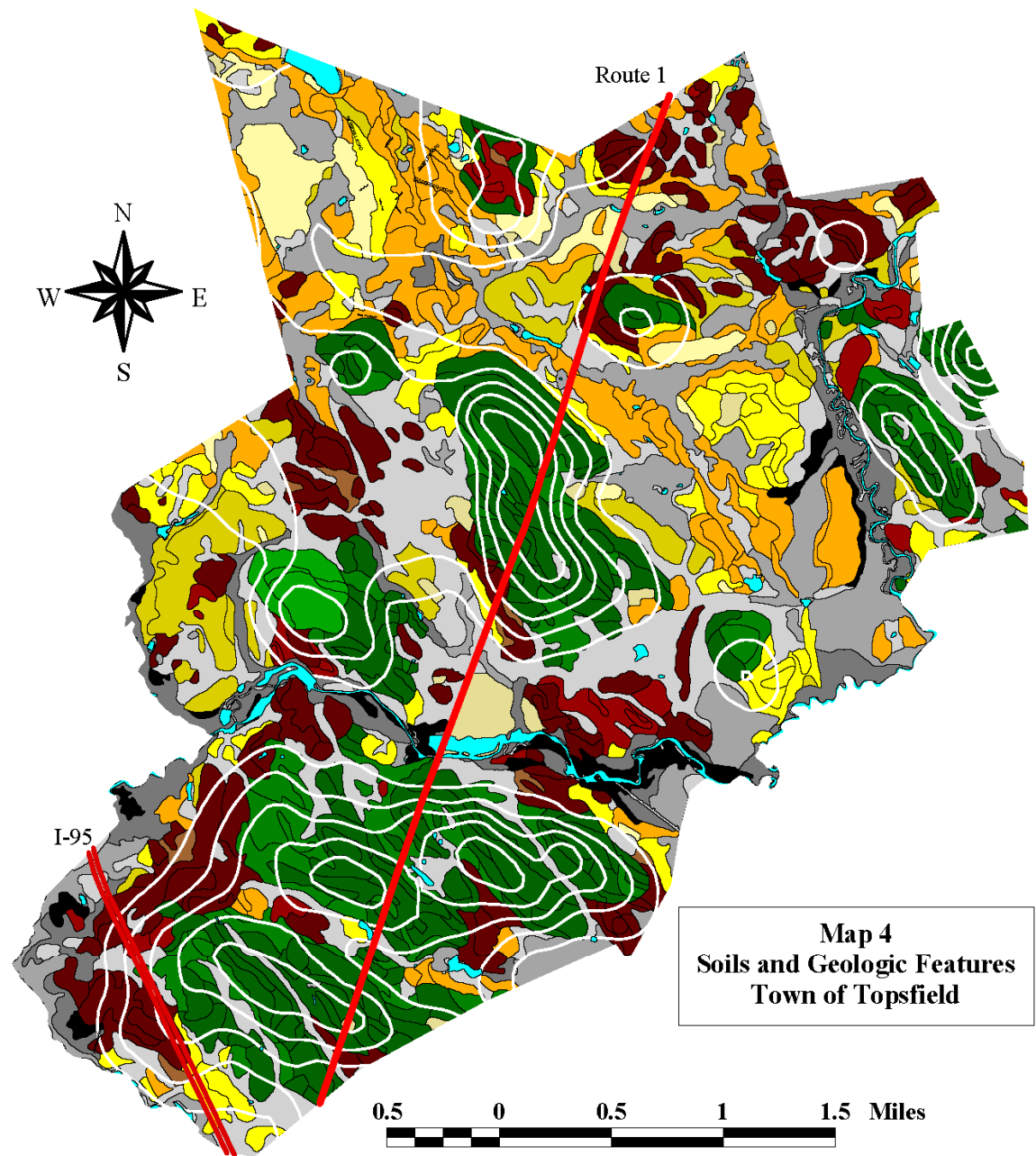
NOT APPLICABLE TO THE TOWN OF TOPSFIELD
See Section 3(C)

Map 3 – Zoning Map



	Business District - Village		Inner Residential and Agricultural District
	Business District - Highway		Outlying Residential and Agricultural District
	Business District - Park		Elderly Housing District
	Business District - Highway North		Elderly Housing Overlay - English Commons
	Central Residential District		Elderly Housing Overlay - New Meadows Golf Course
	Elderly Housing Overlay - Rolling Green		

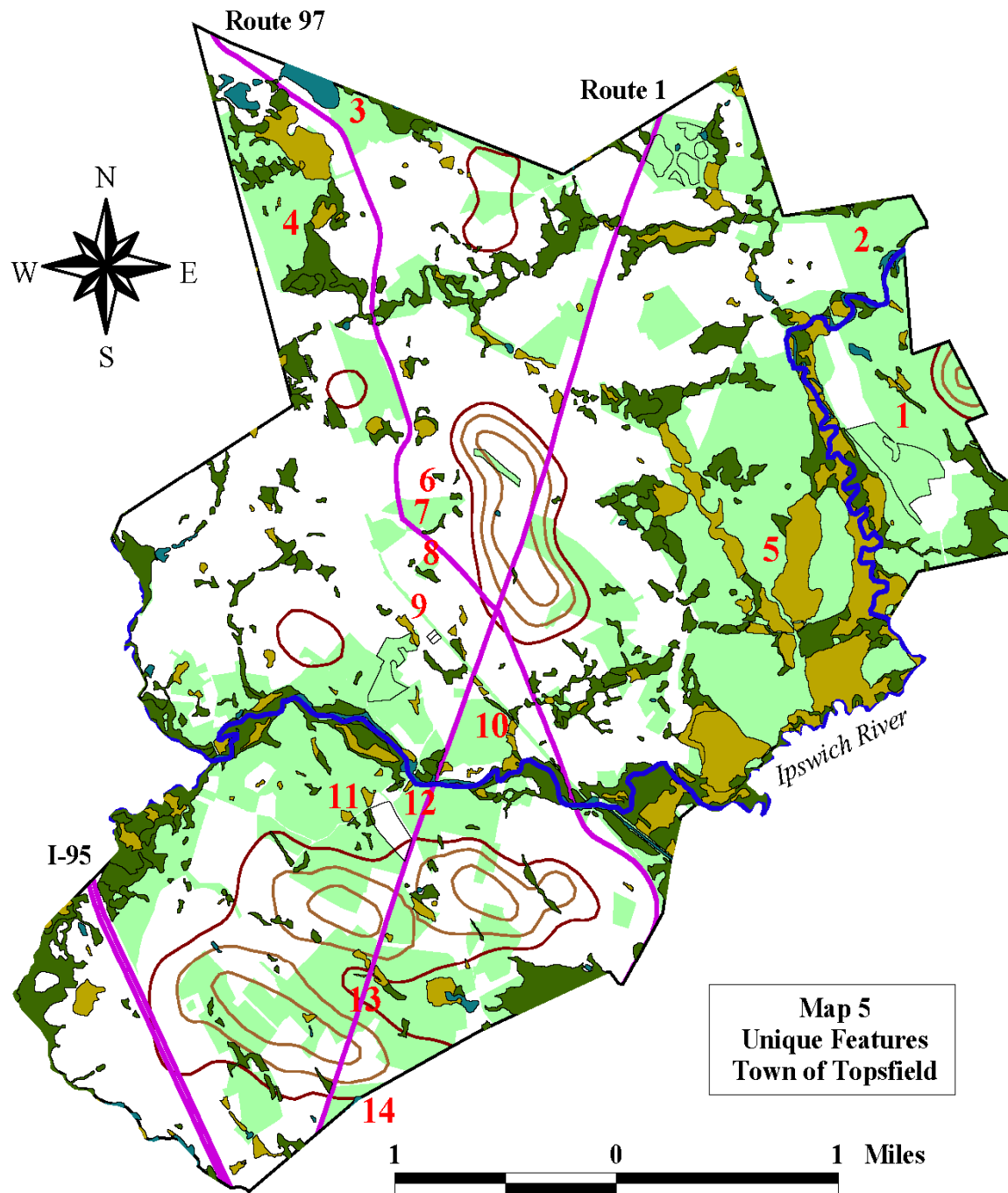
Map 4 – Soils and Geologic Features



"Drumlins" soil association	<ul style="list-style-type: none"> Paxton series Woodbridge series Montauk series 	"Outwash plains" soil association	<ul style="list-style-type: none"> Hinckley series Windsor series Merrimac series
"Uplands" soil association	<ul style="list-style-type: none"> Canton series Charlton series Sutton series 	Poorly drained, marsh & floodplain soils	<ul style="list-style-type: none"> Limerick and Rumney soils Saco Variant Medisaprists Miscellaneous & poorly drained soils
Mined & Disturbed soils	<ul style="list-style-type: none"> Gravel pits Udorthents 	Streams, Rivers and Ponds	<ul style="list-style-type: none"> Drumlin contours

Data from USDA Soil Conservation Services, Essex County North and MassGIS

Map 5 – Unique Features

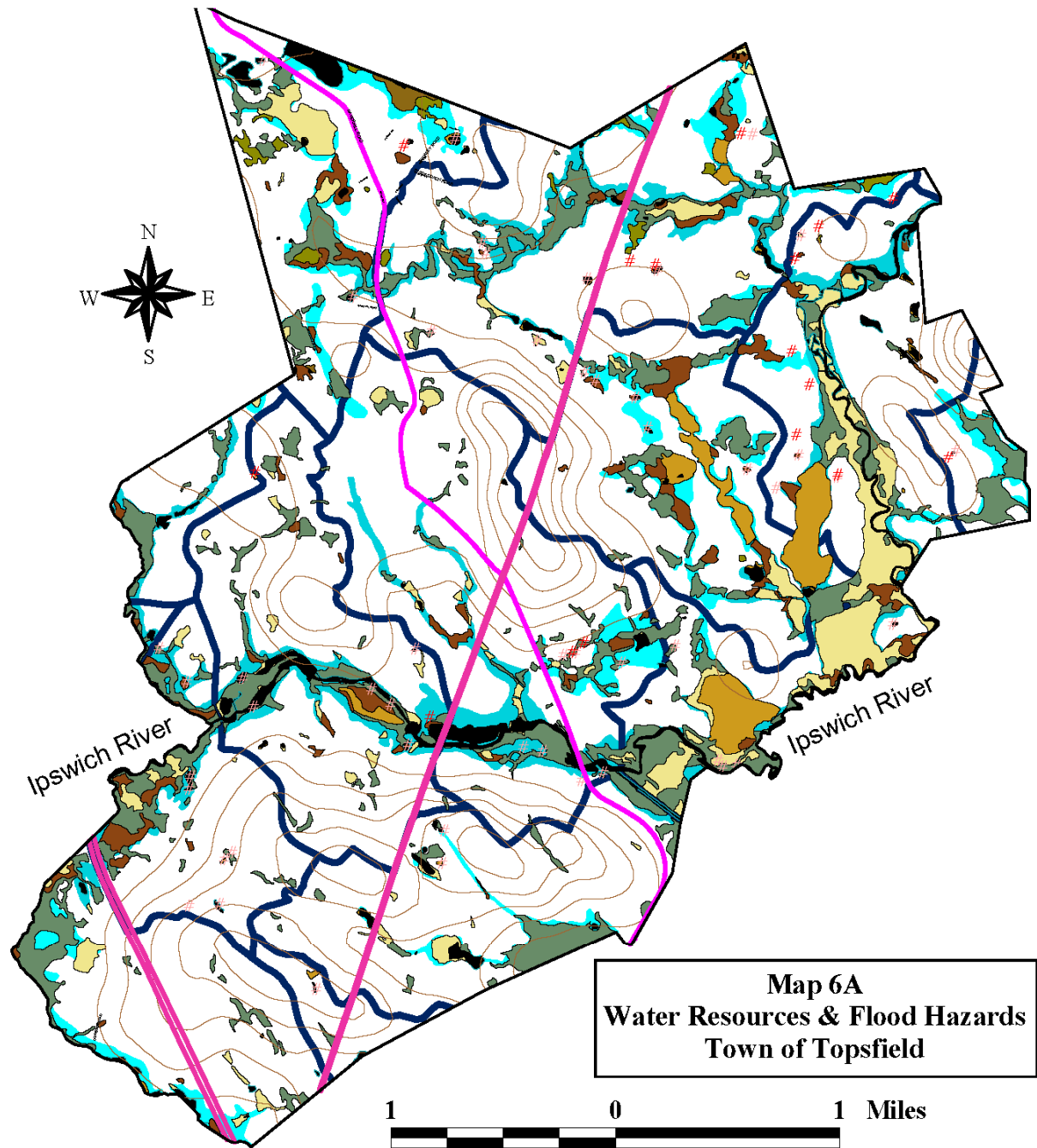


- Drumlins
- Open space
- Marsh
- Open water
- Wooded swamp

1. Bradley Palmer State Park
2. Willowdale State Forest
3. Hood's Pond Town Beach
4. Pye Brook Park
5. Ipswich River Wildlife Sanctuary
6. Parson Capen House
7. Topsfield Village Green

8. Topsfield Village Historic District
9. Topsfield Linear Common Rail Trail
10. Topsfield Fairgrounds
11. Coolidge Estate Conservation Land
12. Wheatland Sledding Hill
13. Route 1 Scenic Highway
14. Putnamville Reservoir

Map 6A – Water Resources and Flood Hazards



Flood Hazard areas

- Zone A
- Zone AE
- Zone V

Certified Vernal Pool

Potential Vernal Pool

Topographic contours

Subbasins of Ipswich River

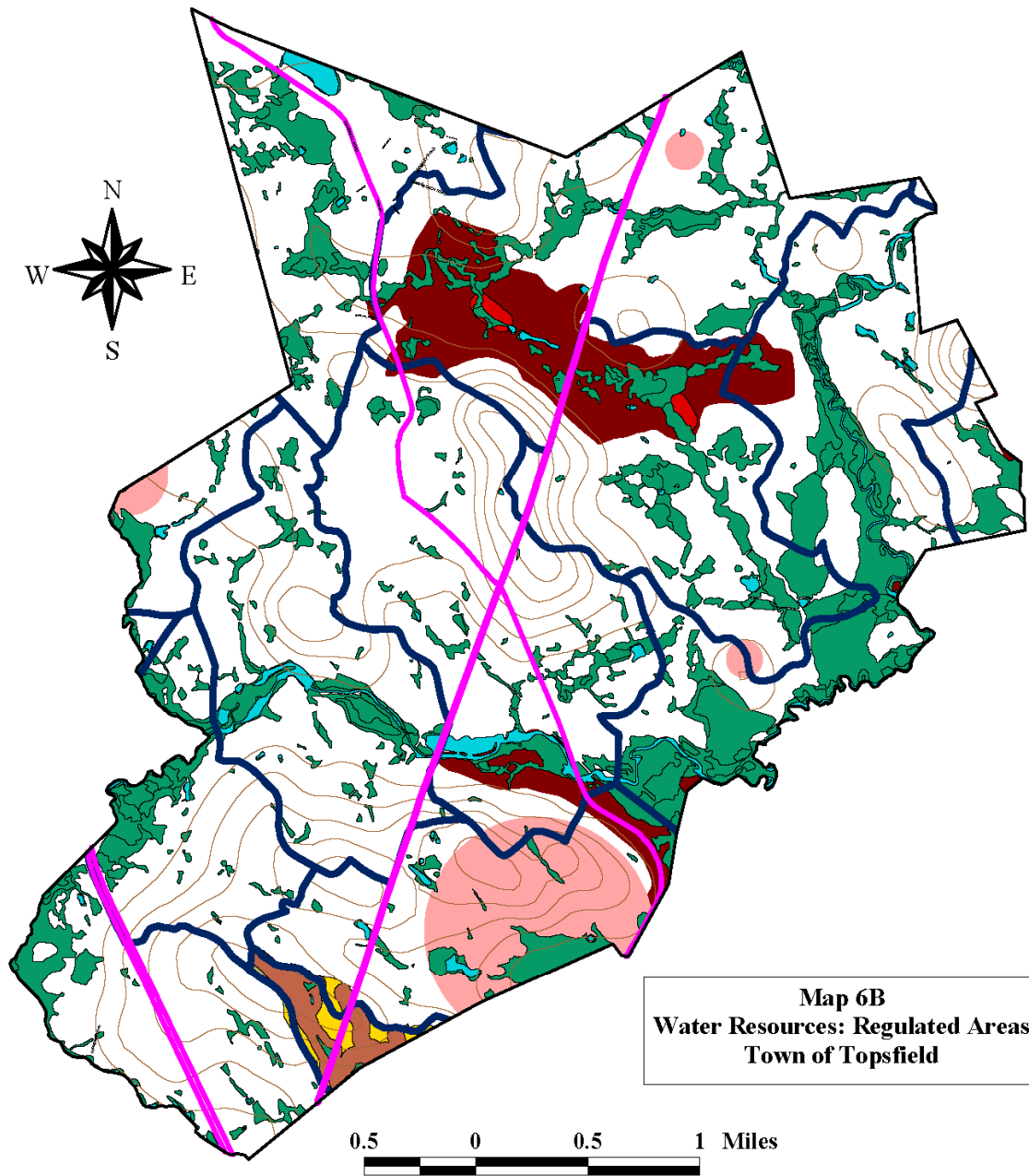
Major roads

Wetlands

- Open water
- Deep marsh
- Shallow marsh
- Shrub swamp
- Deciduous wooded swamp
- Conifer wooded swamp
- Mixed wooded swamp

Data from MassGIS, 2009

Map 6B – Water Resources Regulated Areas



Data from MassGIS, 2009

Surface water supply protection zones

- Zone A
- Zone B

Sub-surface water supply protection zones

- IWPA
- Zone I
- Zone II

Roads

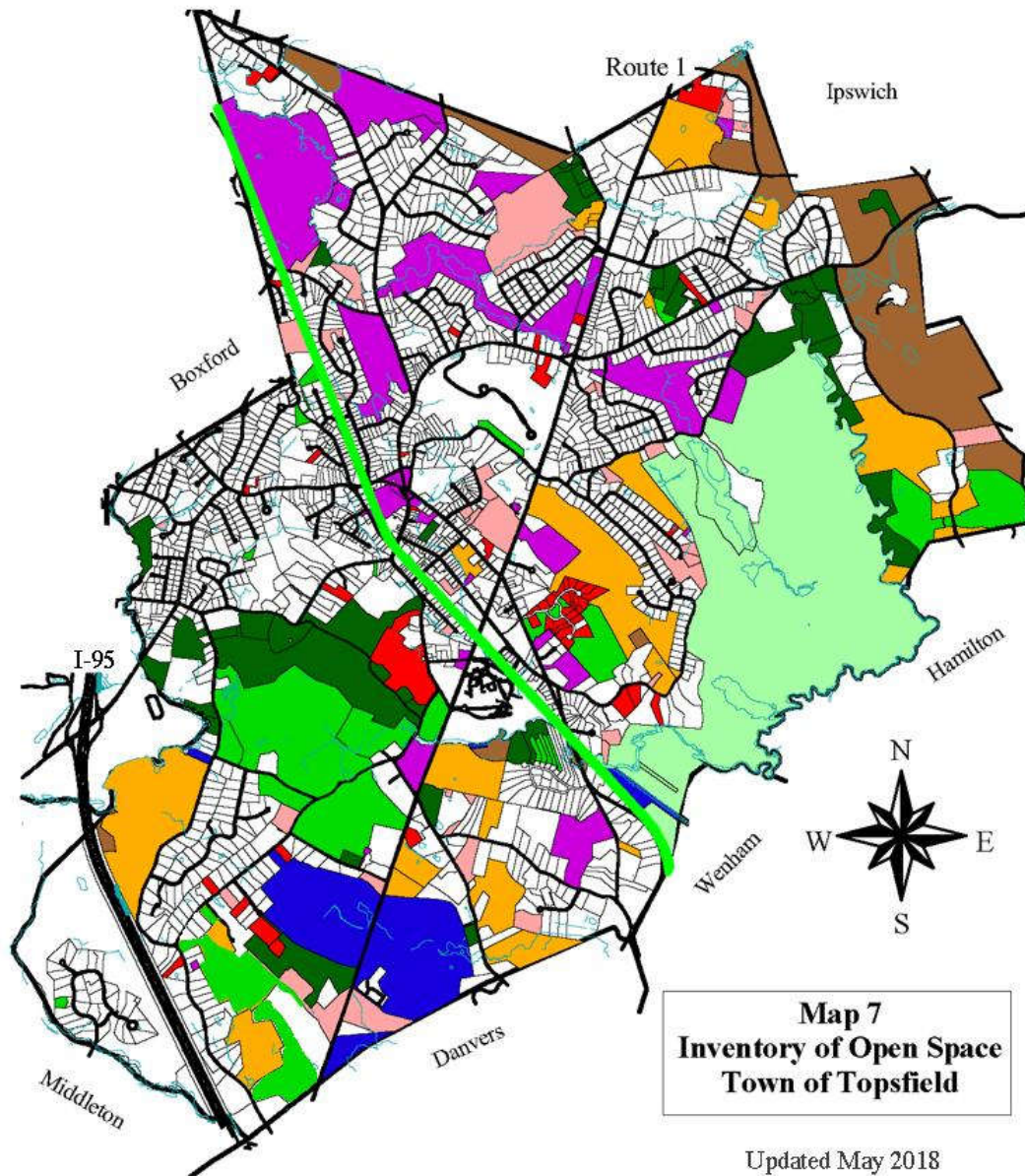
Subbasins

Topographic contours

Open water

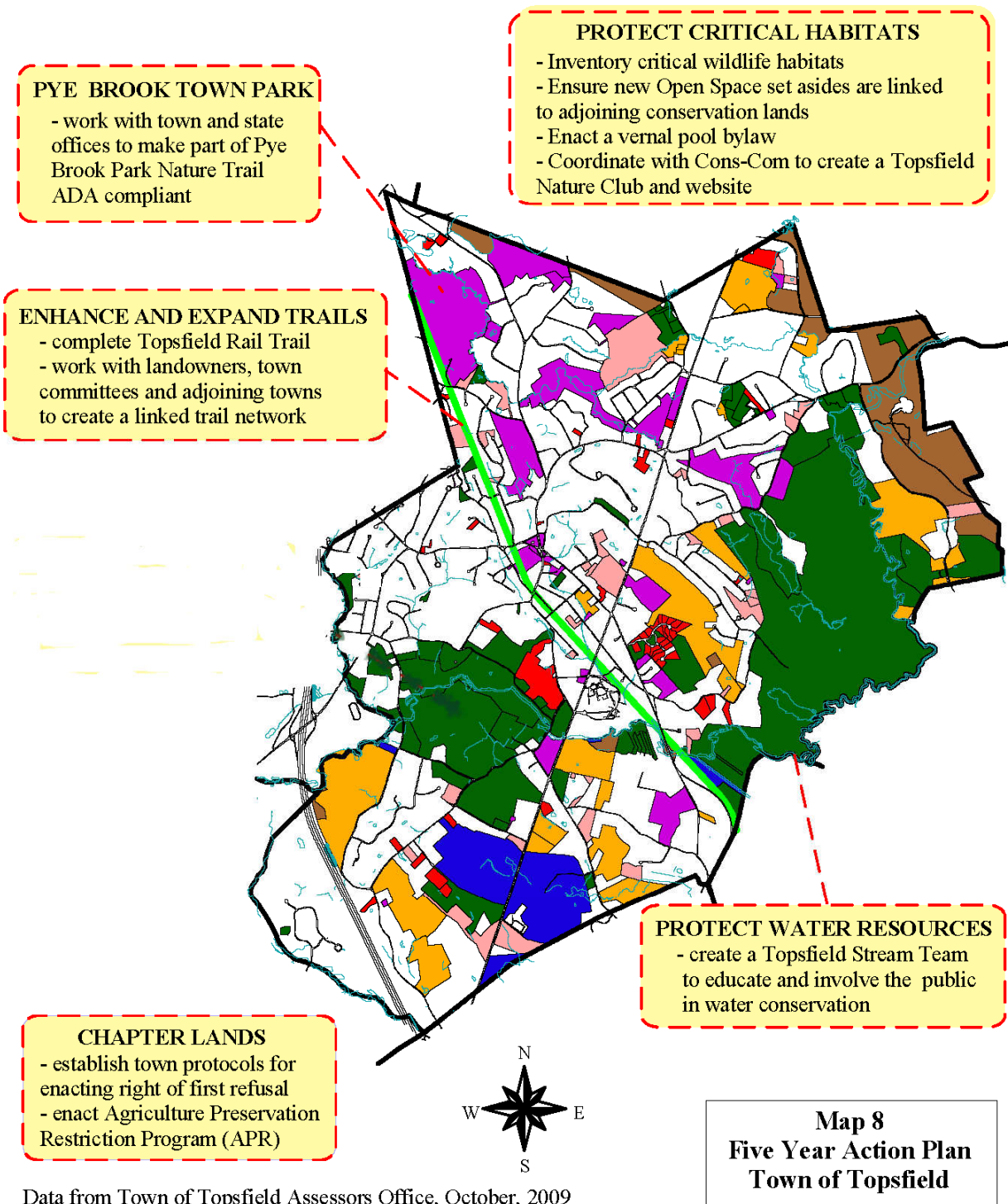
Wetlands

Map 7 – Inventory of Open Space



Residential & Commercial	Chapter land (61A & 61B)
Undevelopable (> 1 acre)	Salem-Beverly Water Board
Developable (Code 1300-10)	Town-owned
Audubon Ipswich River Wildlife Sanctuary	State & County
Essex County Greenbelt Conservation Restriction	Topsfield Linear Common Rail Trail
Other Permanent Conservation Restriction	Waterways

Map 8 - Action Plan Map

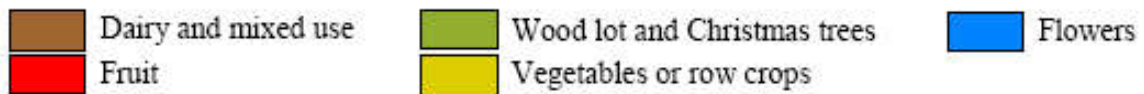
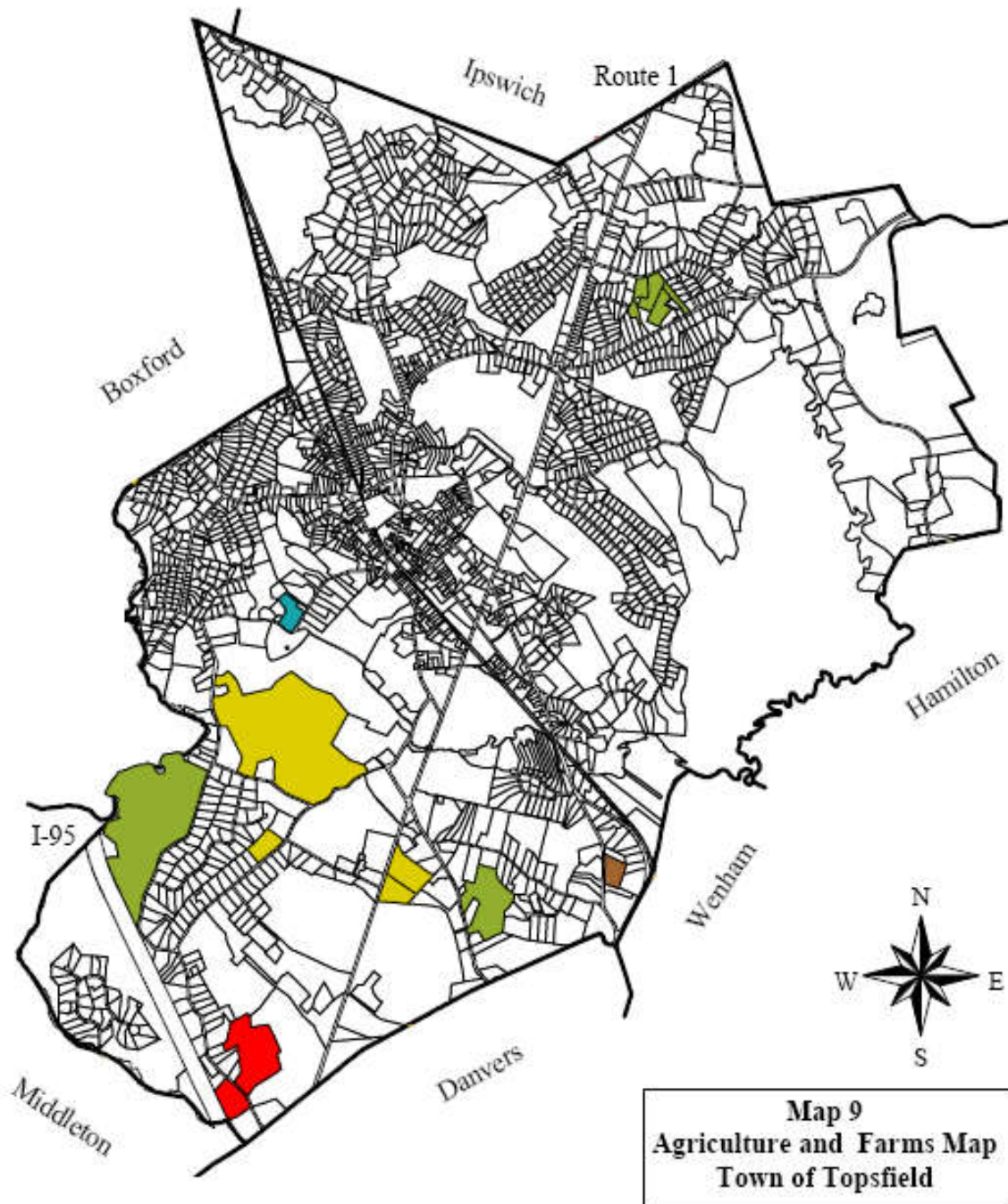


Data from Town of Topsfield Assessors Office, October, 2009

- Residential & Commercial
- Developable (Code 1300-10)
- Undevelopable (> 1 acre)
- Chapter land (61A & 61B)

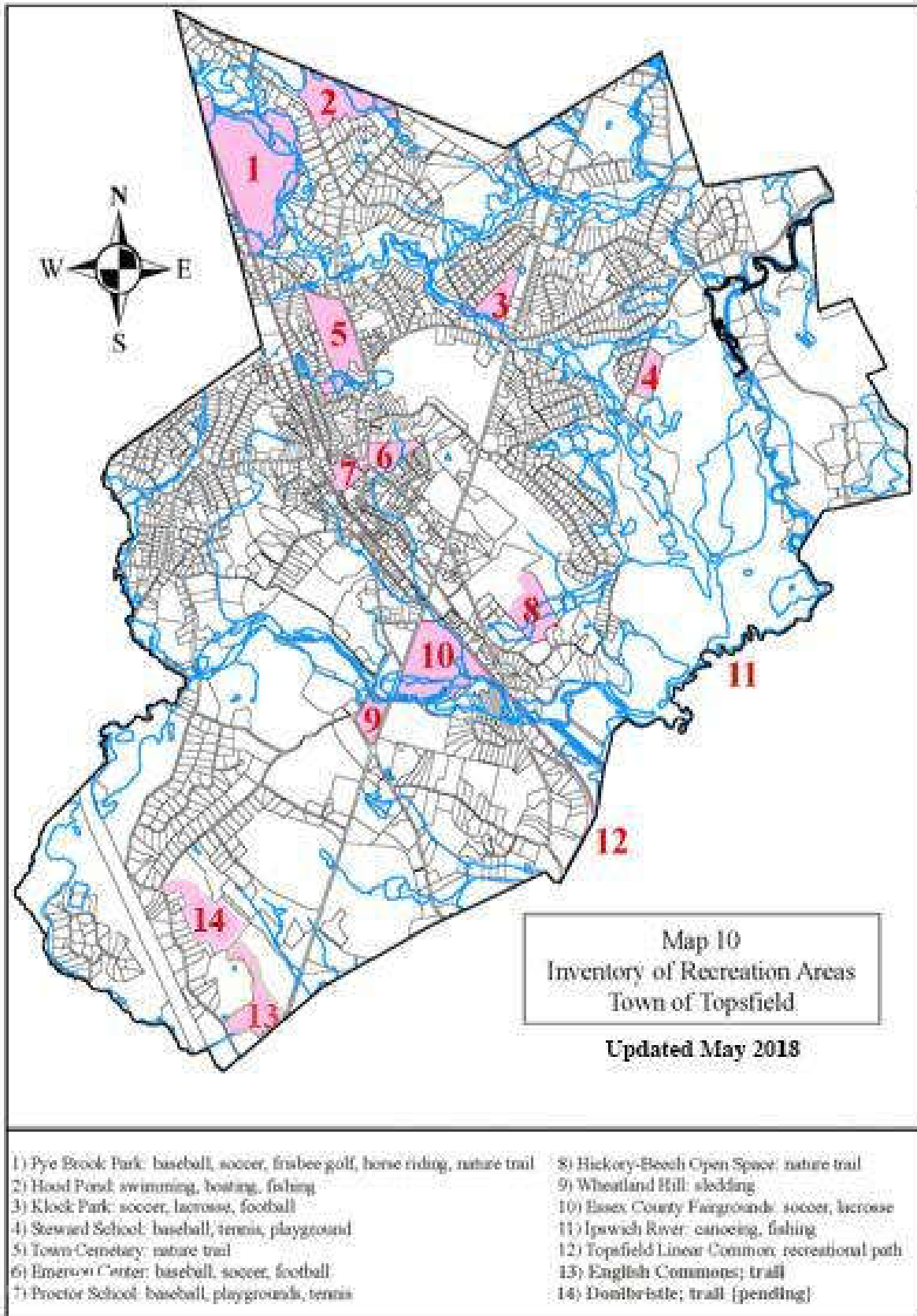
- Salem-Beverly Water Board
- Town-owned
- State & County
- Conservation Restriction

Map 9 - Topsfield Farmlands

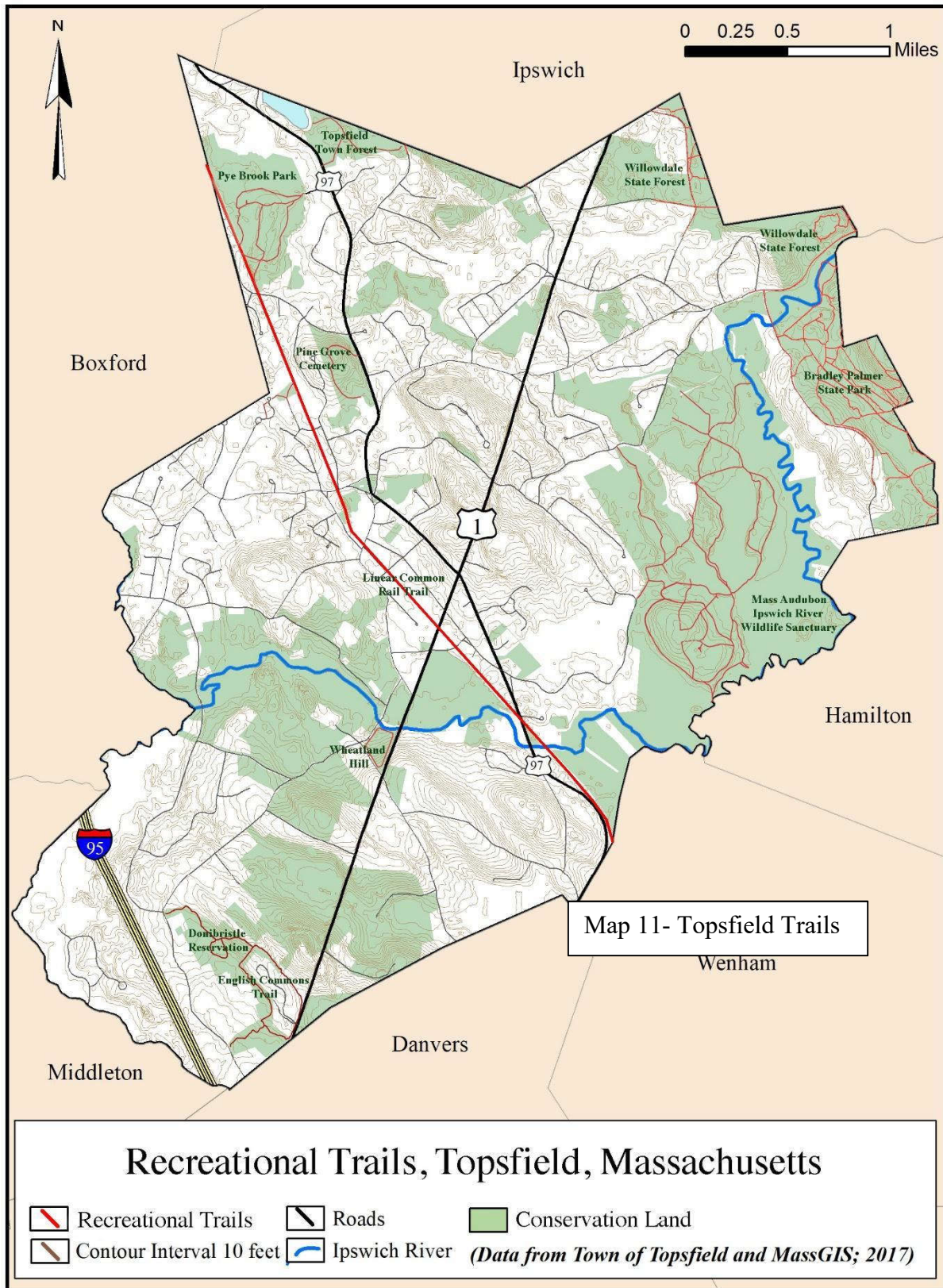


Data from Town of Topsfield Agriculture Committee, May 2010

Map 10 – Inventory of Recreation Areas



Map 11 – Topsfield Trails



Map 12 – Topsfield Trail Connectivity

Map 12 – Trail Connectivity

