USDA United States Department of Agriculture
Forest Service
Eastern Region Regional Office
626 East Wisconsin Avenue
Suite 800
Milwaukee, WI 53202
414-297-3600

File Code: 3000; 3360
Date: July 20, 2020

Mr. Peter Church
State Forester
Department of Conservation and Recreation
Bureau of Forest Fire Control and Forestry
251 Causeway Street, Suite 600
Boston, MA 02114-2119
Peter.Church@state.ma.us

Dear Mr. Church:

I am writing in response to your letter dated January 29, 2020, requesting approval of the changes to the Massachusetts Forest Legacy Program (FLP) Assessment of Need (AON) dated January 2020. The updated AON captures local knowledge of private forest issues, major changes to the Forest Legacy Areas (FLA) and reflects regional landscape goals.

According to FLP Implementation Guidelines, these changes to the FLA are identified as "significant changes" necessitating approval from the Chief of the Forest Service, or designee (FLP Implementation Guidelines May 2017, Part 6: Forest Action Plans, page 21).

The Eastern Region State and Private Forestry review of the changes to the AON concluded that the request met all FLP requirements. I forwarded a memo to the United States Department of Agriculture Forest Service, Deputy Chief for State and Private Forestry recommending approval which is enclosed.

Congratulations! Enclosed is a copy of the letter from the United States Department of Agriculture Forest Service, Deputy Chief for State and Private Forestry approving the Massachusetts FLP updated AON dated January 2020.

Please contact Kirston Buczak kirston.buczak@usda.gov, FLP manager, at (414) 297-3609 if you have any questions.

Sincerely,

Robert Lueckel

ROBERT LUECKEL
Acting Regional Forester, Eastern Region

Enclosures

cc: Lindsay Nystrom (Lindsay.Nystrom@state.ma.us), Mark Buccowich, Kirston Buczak, Neal Bungard, Scott Stewart, Connie Carpenter

Forest Service **Washington Office** **1400 Independence Avenue, SW**
Washington, D.C. 20250

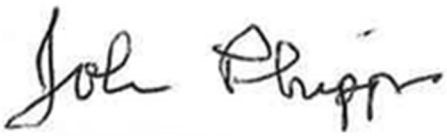
File Code: 3360 **Date:** July 8, 2020
Route To:

Subject: Approval of Massachusetts Forest Legacy Program Assessment of Need Update

To: Gina Owens, Regional Forester, Eastern Region

This letter is in response to your letter of February 14, 2020, regarding the proposed update to the Massachusetts Forest Legacy Program Assessment of Need that includes significant updates to Forest Legacy Areas.

Our staff has reviewed the update, and I approve.



JOHN PHIPPS
Deputy Chief, State and Private Forestry

cc: Kirston Buczak, Mark Buccowich, Scott Stewart

Forest Service

Eastern Region
Regional Office

626 East Wisconsin Avenue
Suite 800
Milwaukee, WI 53202
414-297-3600

File Code: 3360 **Date:** FEB 14 2020
Route To:

Subject: Approval Request of Massachusetts Forest Legacy Assessment of Need Update

To: Chief

Attn: Associate Deputy Chief, State and Private Forestry

The Department of Conservation and Recreation of Massachusetts has submitted a major update to their Forest Legacy Program (FLP) Assessment of Need (AON). The proposed update that is enclosed captures local knowledge of private forest issues, includes major Forest Legacy Area (FLA) changes, and reflects regional landscape goals. The FLP Implementation Guidelines define a proposed FLA as a "significant amendment" necessitating approval from the Chief of the Forest Service or designee (FLP Implementation Guidelines May 2017, Part 6: Forest Action Plans, page 21).

The Eastern Region State and Private Forestry review of the update concluded the request met all FLP requirements. The update meets the requirements as set forth in Section 7 of the Cooperative Forestry Assistance Act (16 U.S.C. 2101 et seq.) as amended by Section 1217 of Title XII of the Food, Agriculture, Conservation and Trade Act of 1990 (P.L. 101-624:104 Stat. 3359), the Federal Agriculture and Reform Act of 1996 (P.L. 104-127:110 Stat. 888), and the Forest Legacy Program Implementation Guidelines, May 2017.

In addition, the Massachusetts Department of Conservation and Recreation and the State Forest Stewardship Coordinating Committee have endorsed the update. I recommend the proposed updated AON be approved.

Robert Lueckel

ROBERT LUECKEL
Acting Regional Forester, Eastern Region

Enclosure

cc: Michael Bohne, Peter Church (peter.church@state.ma.us), Lindsay Nystrom (lindsay.nystrom@state.ma.us), Gina Jorgensen, Mark Buccowich, Scott Stewart, Kirston Buczak, Constance Carpenter

FOREST LEGACY PROGRAM

ASSESSMENT OF NEED

MASSACHUSETTS DEPARTMENT OF CONSERVATION & RECREATION

BUREAU OF FOREST FIRE CONTROL AND FORESTRY

JANUARY 2020

PREFACE

Massachusetts forests are a major resource to the Commonwealth and constitute an inter-generational legacy. Today, despite being the fifth most densely populated state in the nation, sixty percent of Massachusetts remains forested. However, because of increasing population and demand for land for development, these forests have been divided up into smaller and smaller parcels and are threatened by conversion to non-forest uses.

The 2019 Forest Legacy Assessment of Need for Massachusetts provides a comprehensive, long range process to identify and protect privately-owned woodlands that are under threat of parcelization, fragmentation, and conversion to non-forest uses.

As appropriate, periodic review and revision to this assessment will be made to meet the future needs of the citizens of the Commonwealth of Massachusetts.

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Funding for this publication was provided by the USDA Forest Service Forest Legacy Program.

Peter Church, Director of Forest Stewardship

Bureau of Forestry

Department of Conservation and Recreation

Commonwealth of Massachusetts

Date: June 30, 2019

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I. INTRODUCTION

The forests of Massachusetts are an invaluable resource providing benefits ranging from recreational opportunities and tourism to clean water and air, food, wood products, and wildlife habitat. As in 1993, when Massachusetts joined the Forest Legacy Program, our forests face many challenges. These include ensuring landowners have enough economic incentive to retain and manage forest land, the loss of forests due to development pressure, and maintaining a viable forest products industry. It remains in the best interests of the state of Massachusetts to continue to encourage the conservation and management of its forests.

The Forest Legacy Program (FLP) was established in 1990 through an amendment to the Cooperative Forestry Assistance Act (CFAA). The purpose of the FLP is to identify and protect environmentally important private forest land that is threatened by conversion to non-forest uses and to provide the opportunity for the continuation of traditional forest uses. The FLP uses both fee-simple land purchases and permanent conservation easements to protect important forest areas from development and fragmentation.

The original Forest Legacy Program Assessment of Need was written for Massachusetts in 1993. Over the next 25 years it was amended multiple times to designate additional areas for inclusion in the program. These amendments were completed in 2000 (Taconic Range Forest Legacy Area), 2001 (Nashua River Greenway Forest Legacy Area), 2004 (North Quabbin Corridor Forest Legacy Area), 2013 (Heritage Corridor) and 2016 (Western Massachusetts Forest Legacy Area). This document will merge all existing Forest Legacy Areas in Massachusetts as well as incorporate new towns into the area.

II. MASSACHUSETTS FORESTS:

PAST AND PRESENT

A. Massachusetts Forest History

When one walks in the woodlands of Massachusetts, it is easy to get the feeling that the forest around you has not changed for centuries. While it is true that forests change very slowly in relation to our lives, they are a dynamic and changing environment. The forests of Massachusetts have been altered by both natural disturbances and human influences for hundreds of years.

Destructive hurricanes have swept through the state, leaving a changed forest in their wake. Before English settlers arrived, Native American tribes manipulated the forest to meet their needs. They burned the forest floor to stimulate the brushy growth favored by game species, cleared land around major lakes and rivers for settlements and used wood for their primary cooking fuel. Because the native population was small, the forests of Massachusetts were largely unaffected by these practices.

1. The First Forest

When European settlers arrived, they found forests dominated by red oak, white pine and hemlock. Elk, caribou, mountain lion and timber wolves roamed the woodlands. Deer, quail, skunk, grouse and hare were largely confined to settlement areas or younger forests that had been affected by natural disturbances.

For the next 200 years the forests of Massachusetts were cut to establish farms and to harvest wood for houses, barns, forts, furniture, fuel, charcoal and potash. By the early 1800s only 20% of the land in Massachusetts was forested. Elk, caribou and mountain lion had disappeared. Hunting and trapping decimated wild turkey and beaver. The removal of the forest canopy encouraged small, brushy growth favored by deer, grouse and hare.

During the mid-1800s, reports of fertile farmland to the west, the opening of the Erie Canal, the California Gold Rush and the offer of free land to Civil War veterans were situations too tempting for the Massachusetts farmer to refuse. Many abandoned their farms and moved west.

2. The Second Forest

Trees that had seed capable of being established in grassy pastures, such as white pine and grey birch, began to form a forest on abandoned farmland in Massachusetts. By the early 1900s, the earliest farmland to be abandoned had grown into pine stands that were ready to be harvested. The opening of the Panama Canal and improved railroads expanded the marketplace from New England to the rest of the nation and the world. Containers were needed to ship commercial goods and the white pine forests of Massachusetts provided wood for the manufacture of shipping crates. The stage was set for the heaviest commercial exploitation of the Commonwealth's forests to date. In 1908 at the peak of the "boxboard boom", the sawmills of Massachusetts produced almost 400 million feet of lumber. For comparison in 2006, 47 million board feet of lumber was produced by Massachusetts sawmills (De Le Cretaz et al., 2010).

After the pine was removed, the young oaks and maples already established grew quickly to form the next forest. This was a great boon to deer, and in 1910 a century-long deer hunting ban was lifted. Populations of black bear, wild turkey, beaver and grouse were still in decline.

3. The Third Forest

During the turn of the century, as Massachusetts' second forest was undergoing extensive cutting, public concern over the fate of the Commonwealth's forest resources began to grow. The Trustees of Reservations (now known as "The Trustees") and the Massachusetts Forest and Park Association (now known as the "Environmental League of Massachusetts") were formed during this time. Public acquisitions of large parcels of land including Mt. Greylock, Middlesex Fells and the Blue Hills Reservation also began. In 1908 the legislature created the office of the State Forester. A State Forest Commission was established and in 1915 the first state forest, Otter River State Forest in Winchendon and Templeton, was purchased.

Insects, diseases and natural disasters played a large role in changing the composition of the forest at this time. A fungus imported from England introduced the chestnut blight and within 15 years American chestnut was virtually eliminated. This tree had been one of the primary components of the Massachusetts forest, providing durable lumber and food for both people and wildlife, especially wild turkeys, whose population declined afterwards. Dutch elm disease was also established in the early 1900s and has slowly killed most American elms, the state tree of Massachusetts. Gypsy moths reached epidemic proportions at this time, defoliating thousands of acres of red and white oak. The Great Hurricane of 1938 roared through Massachusetts and blew down 880,000,000 board feet of timber.

The wood products industry languished during the Depression. Mobilization for the war effort brought renewed activity for forest industries, but generally this was a period of low exploitation of Massachusetts' forests. The hardwood stands that were established after the white pine was cut were not yet mature and the abundance of natural gas and oil made cordwood less popular.

During this time social shifts in our population were taking place that would also affect the forest. During the 1940s and 1950s urban dwellers began leaving cities in large numbers. Suburban developments cut into forest land. As farming became less profitable many farmers sold their cropland and forests to developers and urban dwellers looking for a rural experience.

Forest land was chopped into smaller parcels, making management less practical. The new country dweller had different uses and priorities for forest land and woodlots became more important as sources of recreation than as income. The uses that landowners deem important for their forest land is significant, since as of the year 2013 private individuals owned 64% of the forest land in Massachusetts (Butler, et al., 2016).

The forests of Massachusetts have again reached maturity, providing us with quiet woodlands, scenic vistas, thriving wildlife populations, a timber resource for our wood industry, recreational opportunities and clean water and air. While the forests of Massachusetts provide us with these benefits, they still face many threats. From April 2005 to April 2013, approximately 38,000 acres of forest or other undeveloped land were converted to development in Massachusetts, translating to a pace of 13 acres per day (Lautzenheiser et al., 2014). Looking at a regional scale a recent report from Harvard Forest and Harvard University states that we are in a second wave of forest destruction and that at the current rate 1.2 million acres of farms and forestland will be lost in New England to development in the next 50 years (Foster et al., 2017).

B. The Forest Resource Base

1. Forest ownership

Although Massachusetts is often thought of as an urban state an estimated 60% of the land area, about 3 million acres, meets the U.S. Forest Service Forest Inventory and Analysis definition of forest land (Butler, 2017). The original assessment of need written in 1993 estimated 64% of the land or 3,225,200 acres was forested. However, the definition of forestland being used was changed between the two dates, so it is not possible to make a direct comparison of the acreages. According to a report by the US Forest Service, Northern Forest Research Station, *Future Forests of the Northern United States*, forest area in the northern US is projected to decrease between 3.5 and 6.4 percent over the next 50 years, with losses concentrated around existing urban and suburban areas (Shifley and Moser, 2016).

As of 2013, 64% of the forest land in Massachusetts is privately owned while the other 36% of forestland is under the ownership of the Commonwealth (19.5%), cities and towns (13.5%) and the federal government (2.7%). Seventy percent of the private forestland is family owned (Butler, et al., 2016). The amount of publicly owned land has grown since the original assessment of need was written in 1993. In 1993 the Department of Environmental Management (DEM), Division of Forests and Parks owned 263,485 acres and the Metropolitan District Commission (MDC) owned 85,000 acres. At that time the Massachusetts Division of Fisheries and Wildlife owned 64,182 acres. By 2010 the Department of Conservation and Recreation (formerly DEM and MDC) Division of State Parks and Recreation owned approximately 290,000 acres, the Division of Water Supply Protection (formerly MDC) owned 105,000 and the Massachusetts Department of Fisheries and Wildlife owned 160,00 acres (De Le Cretaz et al., 2010). In 1993, 16% of the forestland in the state was publicly owned while as of 2013 approximately 36% of forestland was publicly owned (Butler, 2017). Forestland under state ownership is protected through Article 97 of the Amendments to the Constitution of the Commonwealth of Massachusetts.

The Commonwealth has also sought to protect land through permanent conservation restrictions. Conservation restrictions are the most significant and fastest-growing means of protecting environmentally sensitive land and Massachusetts has been a leader in their development. Massachusetts was the first state in the nation to amend its statutes to recognize this new property right. While Massachusetts is 44th among states in terms of land area, it is ranked 10th in terms of acres preserved for conservation and has more land trusts than any other state except California (Conservation Restrictions and Real Property Taxation, 2018).

According to the MA Executive Office of Energy and Environmental Affairs (EEA), there are 135,200 acres of EOEEA agency conservation restrictions – about 45,000 under the Department of Fish and Game (DFG); 48,000 under the Department of Agricultural Resources (MDAR); 7,500 under the Department of Conservation and Recreation (DCR), Office of Watershed Management; 29,000 under DCR Bureau of Resource Protection; and 5,000 that are joint DCR/DFG. They also estimate that there are about 80,000 acres of land trust held CRs and an unknown acreage held by municipalities (correspondence with R. O'Connor, EEA, Division of Conservation Services, 1/22/18). DFG seeks to protect critical habitat, biological diversity and public hunting, fishing and trapping access. MDAR seeks to protect productive agricultural land through Agricultural Preservation Restrictions. The Office of Watershed Management seeks to protect land within the Quabbin, Ware, Wachusett and Sudbury watersheds, using Watershed Preservation Restrictions. The Bureau of Resource Protection is seeking to protect forest management, recreation, trails connectivity and public access for recreation.

At the time of the original Massachusetts Assessment of Need, the number of individual landowners in Massachusetts was increasing dramatically. In 1972 the US Forest Service estimated that there were 103,900 forest landowners in the Commonwealth. By 1984 that number had jumped to 235,200, greater than a two-fold increase. Most of these new landowners bought parcels ranging in size from 1 to 9 acres. During the same period 25% of the parcels ranging in size from 100-199 acres were sold. Thus, many of the larger forested tracts were being broken up into smaller parcels. Today it is estimated that there are over 212,000 owners of private forest land in the state (Massachusetts Forests, 2017) and a recent study found that the average forestland parcel in Massachusetts was 17.9 acres. Parcels between 3 and 9 acres represent 69% of the ownerships (Kittredge et al., 2008).

2. Forest Composition

Massachusetts' forests lie in the transition zone between the pure coniferous woodlands of the north and the mixed deciduous woodlands of the Mid-Atlantic States. A long growing season, well-distributed rainfall and fertile soils have resulted in forests that contain a rich mixture of many species. White pine, hemlock, oak, red maple, and hickory occur throughout the Commonwealth, while birch and sugar maple are concentrated in the fertile soils of western Massachusetts. There are pockets of red spruce at high elevations in the Berkshire Mountains and pitch pine grows with oaks on the dry, sandy soils of Cape Cod and the Islands.

The volume of growing stock on Massachusetts timberlands has increased steadily since 1953. In that time the estimated growing stock of softwoods has gone up 450% and there was a 750% increase for hardwoods. In 1993, growth of our forests exceeded removals by 3 to 1, as of 2010

growth on timberlands exceeded harvests 12.7 to 1. Harvest removals on timberlands account for 13,300,000 cubic feet per year. Currently we are losing more volume to terminal land clearing which was estimated at 23,000,000 cubic feet per year. It was found that forest clearing for development was more prevalent in the eastern part of the state while from the Central Uplands to the western border timber harvesting far exceeded forest cutting for development (De Le Cretaz et al., 2010).

According to the *Future Forest of the Northern United States*, forest area in the region is currently concentrated in the 40-to-80-year age class and is expected to increase in mean age over time, resulting in a paucity of early-successional habitats and low structural forest diversity. Closed-canopy habitat classes are expected to gain acreage at the expense of open-canopy habitat classes. The historical trend of steadily increasing live wood volume over time is projected to level off or decline under all scenarios, with little variation attributable to differing assumptions about future climate conditions. The area of the maple-beech-birch forest-type group is expected to increase relative to nearly all other groups. Projected forest removals resulting from land-use changes are likely to average about 13 percent of total removals, with the remainder resulting from harvesting; in some populous Eastern States, removals resulting from land-use changes could exceed 50 percent of all removals (Shifley, Moser, 2016).

3. Forest Wildlife

Most fluctuations in wildlife populations can be traced to habitat change. As the forests of the Commonwealth shifted to open farmland and to a forest containing all ages of trees, wildlife populations have changed with it. Due to the variety of coastal, inland, farm and woodland habitats and the rich mixture of woodland species, Massachusetts has a diverse array of wildlife.

Mass Audubon's Breeding Bird Atlas 2, for which surveys were completed from 2007 to 2011, recorded 222 species of birds in the state, many of which depend on forested lands. The northern hardwood forest provides an abundant and varied habitat for approximately 80-100 breeding bird species, while the pine and oak forests contain fewer species. Wooded wetlands also support diverse birdlife, especially if they contain water courses with brushy or marshy edges (Breeding Bird Atlas 2 Results. 2017).

The varied terrain of thickets, woods and abandoned fields in the Commonwealth provide an ideal habitat for mammals. More than 50 species of terrestrial mammals regularly occur in Massachusetts. Our largest resident mammal, the black bear, has been increasing in numbers and distribution since the 1970s. The statewide population of bears is estimated to be over 4,500 animals and is growing and expanding eastward, with breeding animals in northern Middlesex County (Learn About Black Bears., 2017). One of our medium sized predators, the eastern coyote, is now well established throughout the state, except on Martha's Vineyard and Nantucket (Learn About Coyotes., 2017). A popular game species, the white-tailed deer, is common throughout the state and is valuable for its regulated hunting season (Learn About Deer., 2017). All the above species as well as many species of amphibians, reptiles and fish are all affected by changes in the forests of Massachusetts.

In order to identify the most critical habitats in Massachusetts and to guide the stewardship of these areas, the Department of Fish and Game and the Nature Conservancy in 2010 developed BioMap2. BioMap2 identifies Core Habitat and Critical Natural Landscapes (Figure 1.) that are essential to safeguard the diversity of species and their habitats, intact ecosystems, and resilient natural landscapes across the state.

Core Habitat consists of 1,242,000 acres that are critical for the long-term persistence of rare species and other Species of Conservation Concern, as well as a wide diversity of natural communities and intact ecosystems across the Commonwealth. Core Habitat includes:

- Habitats for rare, vulnerable, or uncommon mammal, bird, reptile, amphibian, fish, invertebrate, and plant species;
- Priority Natural Communities;
- High-quality wetland, vernal pool, aquatic, and coastal habitats; and
- Intact forest ecosystems.

Critical Natural Landscape (CNL) consists of 1,783,000 acres complementing Core Habitat, including large natural Landscape Blocks that provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience. It includes buffering uplands around coastal, wetland and aquatic Core Habitats to help ensure their long-term integrity. CNL, which may overlap with Core Habitat includes:

- The largest Landscape Blocks in each of 8 ecoregions; and
- Adjacent uplands that buffer wetland, aquatic, and coastal habitats.

	Total Acres	Percent of State	Acres Protected
Core Habitat	1,242,000	24%	559,000
Critical Natural Landscape	1,783.000	34%	778,000
BioMap2 Total (with overlap)	2,092,000	40%	861,000

Table 1. BioMap2 Total and Protected Acres in Core Habitat and Critical Natural Landscapes. (2010. BioMap 2. MA Department of Fish and Game and the Nature Conservancy)

4. Forested Wetlands

Forested wetlands occupy poorly drained areas that are subject to flooding during periods of high rainfall. These areas are often overlooked because they lack surface water for much of the year. Forested wetlands provide important functions such as flood and sediment control, ground and surface water purification and fish and wildlife habitat.

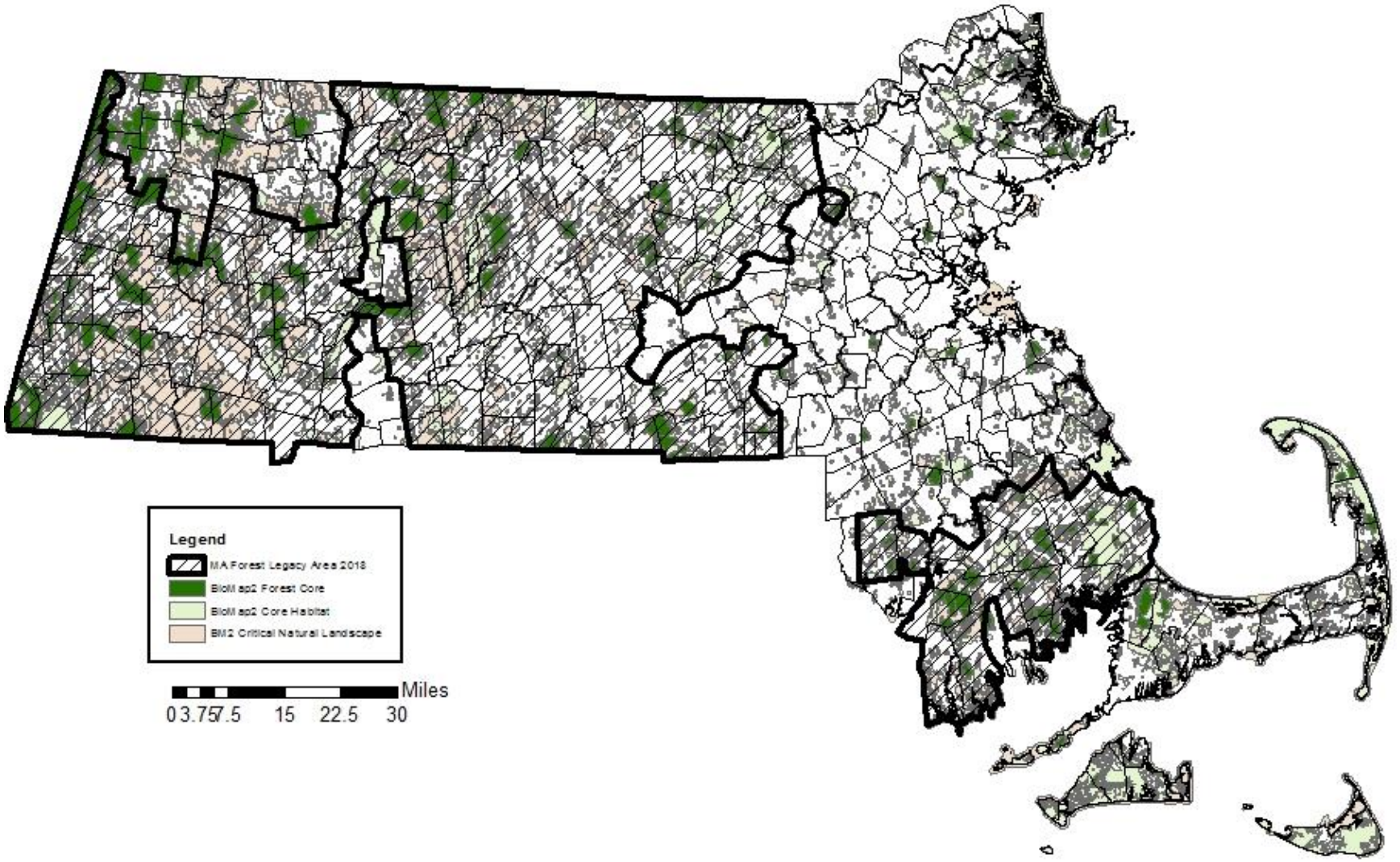

Figure 1. BioMap2 Map of Massachusetts

Red maple swamps are common throughout the state. Other types of forested wetlands in Massachusetts include floodplain forests found along major rivers and streams, black spruce bogs, Atlantic white-cedar swamps and vernal pools. Vernal pools are small, temporary bodies of freshwater, filled during wet spring and autumn months, and dry during the summer.

Wildlife that favor forested wetlands include the red-shouldered hawk, wood duck, spotted salamander, black bear, white-tailed deer and the beaver. Forested wetlands with a permanent source of water, such as a small brook or stream, provide ideal conditions for beavers who create an entire new habitat of dead trees and marshland. This habitat, in turn, will support a rich variety of wildlife.

5. Geology, topography and outstanding geologic features

The topography of Massachusetts was formed by glacial action that occurred 10 to 15 thousand years ago. As the glacier advanced and retreated it scraped away at existing land forms in some areas and deposited earth materials in others. Throughout Massachusetts there are numerous examples of landforms shaped by moving ice. Some features, such as drumlins and terminal and recessional moraines, were formed by glacial deposits. Other features such as lakes, swamps and waterfalls were formed by debris that clogged valleys and dammed streams as the glacier retreated.

The Taconic Mountains form a mountain border with New York State. Elevations range from 1200 to 2800 feet. Mount Greylock, the state's highest peak at 3,491 feet, is in the northeastern part of the Taconic Province. The Taconics, although classified as hills, comprise the state's only "mountainous" region.

The Berkshire Valley, a long, narrow, lowland running north and south between the Taconic Mountains and the Berkshire Hills, includes both the Hoosic and Housatonic River valleys. The area, underlain by less resistant rock than surrounding regions, has eroded to provide a striking contrast with the bordering hills.

The Western Highlands (Berkshire Hills) lie between the Berkshire and Connecticut valleys. The topography is rugged; elevations, which range from 700 to 2000 feet, are highest in the northwestern part of the province. The eastern section is dissected by major rivers which flow east and south to the Connecticut River.

The Connecticut Valley Lowland is a wedge-shaped area extending north and south from southern Vermont to the Connecticut border. The Lowland, about 20 miles wide at its greatest width, is in a large geologic fault bordered by an escarpment on either side of the Valley. The topography is generally flat to rolling, except for a few ridges, such as Mt. Holyoke and Mt. Tom, which rise above the valley and are notable landmarks. The Quabbin Reservoir, which serves as Boston's drinking water supply, is in this region. Much of the land around the Quabbin is protected to ensure the quality of the drinking water (Massachusetts Statewide Comprehensive Outdoor Recreation Plan 2017).

The Central Highlands are comprised of the eroded plateau east of the Connecticut Valley Lowland. The topography is generally rugged but more subdued than that of the Western Highlands. Elevations range from 700-1200 feet, except for single mountains, such as Mt. Wachusett at 2006 feet. The eastern part of the Highlands is bounded by an escarpment that slopes down to join the Coastal Hills. There are also two major drinking water supplies here in the Wachusett and Sudbury Reservoirs.

The Coastal Hills region is the largest physiographic province in the state. Its low-lying plateau (elevations 200 to 700 feet) surrounds the Boston and Narragansett basins and borders the Coastal Lowlands. Best known of the Coastal Hills are the Blue Hills which rise to the south of Boston and dominate the skyline for miles around.

The Boston Basin is a very distinct topographic feature of the Massachusetts coast. Its lowlands (up to 150 feet in elevation) are surrounded by hills which rise abruptly forming a ring around the entire basin. The major relief within the lowlands area is provided by a series of more than 50 drumlins.

The Narragansett Basin, similar to the Boston Basin, is a lowland (up to 200 feet in elevation) surrounded by the eastern uplands of the Coastal Hills.

The Coastal Lowlands include a narrow strip in the northeastern part of the state and all land south of the Narragansett Basin, Cape Cod, and the islands of Nantucket sound. The landscape is flat to rolling and elevations range from sea level to 200 feet. Much of Cape Cod is still in the process of change; wind and wave action change the shape of the present landscape.

6. Cultural Resources

Cultural resources include the remains of sites, structures or objects used by humans in the past. The Massachusetts Historical Commission (MHC) is charged with preserving this important heritage. According to the MHC, settlement has existed in Massachusetts for 11,000 years and patterns of use, abandonment, and reuse characterize the landscape.

Throughout all settlement periods, including prehistoric times, the most densely populated areas in the state have been the three lowland regions; the coastal lowlands, the Connecticut River Valley and the Housatonic Valley. The central and western uplands have consistently been less densely settled according to the MHC. While trade and industrial technology grew and flourished in the market centers and cities of the core lowland areas, agricultural activities dominated the upland areas. Settlers cleared the land for crops and pastures and depleted much of the forests across the state. Wood was valued for timber and fuel; white pine was especially prized for ship masts. By the early to mid-1800's however, farming was no longer profitable, and a period of farm abandonment ensued. With the decline of farming and logging, the abandoned fields reverted to forests and enfolded the stone walls and homesteads that dotted the landscape and now form part of our cultural heritage and record.

Many cultural resource sites are fragile and subject to a variety of negative impacts from diverse sources. Particularly vulnerable are sub-surface cultural resource sites that can be destroyed or

damaged by soil mixing, compaction or erosion. According to the Department of Conservation and Recreation's Cultural Resource Management Guidelines, without appropriate controls, forest management programs can be detrimental to archaeological resources, but the protection of cultural resources fits well with the Massachusetts Forest Cutting Practices Act and its associated Best Management Practices, which if properly applied, should result in minimal soil compaction and erosion.

C. Demands on the Forest

The citizens of Massachusetts place great demands on our forest resources. We expect the forest to supply recreational opportunities, clean water, benefits to human health and society, wildlife habitat, and a healthy forest industry. The key to good land management is to meet these diverse needs on a sustained basis without sacrificing the integrity and the productive capacity of the resource base. Much work has been done to gather information on the forest resources, to assess our impacts on them and to prioritize policies and actions for resource conservation. These efforts will guide future conservation efforts in the state.

1. Recreation

Recreation on private and public land is a dominant use of Massachusetts forest land. Many private landowners permit the use of their land for hiking, nature study, horseback riding, cross-country skiing, snowmobiling, fishing and hunting. The state is the largest owner of recreation and conservation land (SCORP., 2017). The Department of Conservation and Recreation and the Department of Fish and Game both manage forest areas that are used heavily for recreation. It is estimated that outdoor recreation generates $10 billion in annual consumer spending in Massachusetts and the tax revenue generated equals $739 million annually. In 2011, 2.2 million people spent 1.99 billion dollars on wildlife related recreation, including fishing, hunting and birdwatching (Oriel, Linda., 2013).

2. Clean Water

The forest land of Massachusetts protects our water resources. The purity of water reaching a stream, its total amount, and the regularity of flow are all affected by the conditions of the surrounding forest, the soils in that forest, and other plant cover. Because trees also take up water, available water from municipal watersheds in Massachusetts can be increased by decreasing the forest cover to a compatible balance of open and forested land. Harvesting timber from municipal watersheds also provides income to towns.

Massachusetts has 77 public water supply systems that have an active surface water source, serving a total population of 5,282,557. The Quabbin Reservoir, Ware River, and Wachusett Reservoir water supply system provides 250 to 300 million gallons of water per day and serves 2.36 million customers. This water is disinfected, but unfiltered. The federal Environmental Protection Agency's Surface Water Treatment Rules (SWTRs) were established for the purpose

of reducing illnesses caused by pathogens in drinking water. The SWTRs require water systems to filter and disinfect surface water sources. However some water systems that meet criteria for water quality and watershed protection are allowed to use disinfection only (40 CFR Parts 9, 141, and 142, National Primary Drinking Water Regulations: Interim Enhanced Surface Water Treatment; Final Rule, Federal Register / Vol. 63, No. 241 / Wednesday, December 16, 1998 / Rules and Regulations). There are five surface water supplies in Massachusetts that have filtration waivers; Holyoke (serving 40,000 customers); East Northfield Water Company (700); Mass Water Resources Authority (2.36 million); Falmouth (77,500 (summer), 33,000 (winter)); and, Concord (16,000).

The state manages more than 100,000 acres of forest within these watersheds and about 75% are actively managed and growing at a rate of 10 million board feet of timber each year. Forests protect the water supply from threats such as residential lawn care and gardening, septic systems, residential fuel oil storage, storm water discharge, and state regulated underground storage tanks (De Le Cretaz et al., 2010).

3. Benefits to Human Health and Society

Climate change is one of the challenges that face all of us today. Fortunately, Massachusetts forests accumulate and store carbon, removing carbon dioxide emissions from the atmosphere. In New England our forests offset more than 20% of the region's carbon dioxide emissions. In addition, New England's forests remove over 760,000 tons of air pollution each year, which is worth an estimated $550 million in health benefits (Foster et al., 2017). Forests also help to protect people from flood damage as these forests store and slow runoff from storms. When forests are permanently cleared for development we lose this ability to store carbon, filter our air and water, and mitigate flooding.

4. Wildlife Habitat

Traditionally, wildlife managers have focused their attention on those species considered "consumptive", or those that are hunted or fished. Today in addition to focusing on game species an emphasis is placed on preserving biodiversity and protecting rare, threatened and endangered species and their habitat. Managing a forest to promote game species and wildlife biodiversity provides an economic benefit to the state, as noted above, $1.99 billion was spent on wildlife related recreation in 2011.

Wildlife populations are entirely dependent on their habitat, so the link between wildlife and forests is a crucial one. Forests can be managed to enhance a certain wildlife species, such as ruffed grouse or white-tailed deer, protect important habitat elements like forested wetlands, seeps and vernal pools, or generally improve habitat by providing a variety of food and cover. Planning a timber harvest with this diversity in mind can greatly enhance wildlife habitat.

5. Forest Industry

Our forests can provide a variety of products as well. Timber can be harvested for construction materials or value-added products like furniture, firewood and paper products or pellets. Besides wood products, food items such as maple syrup, nuts, fruits and mushrooms have traditionally been harvested from Massachusetts forests.

The forest industry is one of the oldest in Massachusetts, beginning with the first sawmills that were present in every village. It is an agricultural industry with roots in every small town, providing local jobs and often a source of native lumber. A healthy forest industry prevents the loss of rural character and agricultural heritage and helps to preserve the local rural economy.

A challenge for our state will be increasing the amount of locally harvested wood products that we use. Currently Massachusetts residents use more wood than is harvested in the state. Approximately 98% of the wood that residents use is imported (De Le Cretaz et al., 2010). The Timber Products Output program from the USDA Forest Service shows a 55% decrease in round wood products including saw logs, pulpwood, industrial wood and fuel wood between 2001 and 2006. There has also been a progressive decline in both the number of local sawmills and sawmill output. The number of sawmills in the state has decreased steadily from 130 in 1971 to 32 sawmills and 12 portable band mills reported from a survey in 2005, and there has been an 80% decline in the amount of lumber produced in that time (De Le Cretaz et al., 2010). As of 2006 there were 16,801 total people employed by the forestry, logging, wood products, and pulp and paper industries in the state (AF&P., 2006). This includes approximately 156 professional foresters and 298 timber harvesters licensed to practice in Massachusetts. For comparison the 1993 Assessment of Need stated that in 1983, 38,000 people in Massachusetts were employed by the forest products industry.

Despite a rather small primary manufacturing capacity, Massachusetts is home to a diverse array of secondary manufacturers. The North-East State Foresters Association (NEFA) 2015 report "*Forest Based Economy of Massachusetts*" identified 8,500 workers employed in paper manufacturing and an additional 4,600 workers employed in secondary wood products manufacturing in Massachusetts.

Forest industry growth has largely recovered from the economic downturn of 2008 with Massachusetts ranked 2nd in New England by NEFA for forest based Gross State Output. Forest based GSP was valued in 2015 at $5.2 billion.

6. Energy from Wood

The oil crisis during the 1970's generated much interest in fuelwood as a source of home heating. One million cords of wood were used in Massachusetts during the 1981-1982 season. Since 1982 home fuelwood burning has generally decreased, but it has fluctuated depending upon the price of oil and natural gas. Wood pellet stoves have provided a cleaner and easier option for homeowners and are gaining in popularity. There is one wood pellet manufacturer in the area with a plant in southern New Hampshire and another in the Albany, NY area.

There is one biomass electricity plant in Massachusetts and several in northern New England

that utilize wood biomass from Massachusetts' forests. There are also many thermal biomass units in the state providing heat for public and private buildings, such as schools, colleges, hospitals and manufacturing plants, that utilize sawmill residues or forest biomass. The Massachusetts Renewable Energy Portfolio Standards requires retail electricity suppliers (both regulated distribution utilities and competitive suppliers) to obtain a percentage of the electricity they serve to their customers from qualifying renewable energy facilities. As of September 2017, the Massachusetts Department of Energy Resources (DOER) has granted Statements of Qualification for two generation units producing biomass power, Seaman Paper in Baldwinville, MA, and Cooley-Dickinson Hospital in Northampton, MA. To qualify for the standard, forest biomass must be sourced from Massachusetts forests covered by a forest cutting plan or from third-party certified woodlands if outside Massachusetts (MA DOER website, 2018, https://www.mass.gov/renewable-energy-portfolio-standard).

In December 2017, DOER published regulations creating the Alternative Energy Portfolio Standard (APS). APS recognizes thermal energy from wood when burned in a qualifying unit. They anticipate that the primary participants will be homeowners with qualifying wood pellet systems. They have already identified approximately 50 potentially qualified participants who had installed units through a program of the Mass. Clean Energy Center which covers up to 45% of the cost.

Energy suppliers in Massachusetts must have renewable energy credits covering at least 20 percent of their total supply by 2020. This creates a potential income source for businesses and families participating in the RPS and the APS, and therefore should create a greater demand for locally grown and harvested forest products. After converting BTUs to megawatts (3.412 million BTUs = 1 megawatt), one ton of wood pellets produces the equivalent of 4 megawatts of thermal energy. If a participating homeowner burns 8 tons of pellets a year and the credits are worth $20 per megawatt, they could earn $640.00.

7. Maple Syrup

In Massachusetts there are over 350 maple producers who make more than $2 million worth of syrup per year. This income is a vital source of farm income in the rural part of the Commonwealth. The maple industry also represents an important tourist attraction. It is estimated that these syrup producers bring in about 60,000 tourists to the state who spend over $1 million (De Le Cretaz et al., 2010), generating considerable economic spin-off benefits to rural communities.

8. Christmas Trees

There are over 400 Christmas tree growers in Massachusetts, most of whom are part-time producers. Over 50,000 Christmas trees are harvested in Massachusetts annually, with a retail value to the growers of over $1.5 million. Good markets exist for these trees in southern New England, on a retail and wholesale level. The potential exists to produce over one million trees annually in Massachusetts.

9. Enhancing Urban Areas

The trees, soil, water and wildlife in our communities make up the urban forest. City trees are intermingled with buildings, streets, sidewalks, overhead and underground utilities, parking lots, cars, parks and people. This unnatural environment makes growing conditions difficult for trees and other plants. Special care is needed to plan for and to maintain the urban forests of our towns and cities.

Proper management of street plantings provides communities with amenities such as reduced noise pollution, cleaner air, more moderate temperatures, windbreaks, habitats for wildlife, increased property values, and a more aesthetically pleasing environment. Eighty-eight communities in Massachusetts have been recognized as members of the "Tree City, USA" program, sponsored by the National Arbor Day Foundation. Tree City USA is an awards program that provides public attention and national recognition for local commitments to community trees and forests. In addition, two Tree Line USA Awards have been earned by local utility companies, and four Tree Campus USA Awards were given to colleges and universities for their dedication to urban forestry management.

10. Quality of Life

Forestland provides strong economic, ecological, and aesthetic benefits for citizens of the Commonwealth. The open space provided by our forests contributed to the economic boom Massachusetts experienced during the 1980s. Businesses assessing relocation consider the quality of life, including scenic surroundings, open land, and clean water, to be more important than factors such as taxes and land costs. Three hundred and thirty communities in Massachusetts (out of 351) associated the "quality of life" in their communities with the presence of natural areas, panoramic vistas, rural atmosphere, traditional town centers and historic buildings. Amenities such as these are vitally linked to the forest land and urban forests of the Commonwealth.

In 2014, 22.9 million domestic visitors and 2.235 million international visitors came to Massachusetts, generating $19.5 billion in direct spending and $1.2 billion in state and local taxes. The Massachusetts travel and tourism industry supports 132,000 jobs across the Commonwealth and $4.1 billion in paid wages. The "tourism industry", worth an estimated $2 billion annually to Massachusetts, is largely dependent on the maintenance of the existing character of the forest. Therefore, any activity, private or public, which may profoundly impact the landscape and affect the forested ambiance, directly affects the residents of the state as well its attractiveness for tourism.

Massachusetts is currently implementing an urban tree program called Greening the Gateway Cities Program (GGC). GGC is a partnership between the Executive Office of Energy and Environmental Affairs (EEA), the Department of Conservation and Recreation (DCR) Urban & Community Forestry Program, the Department of Energy Resources (DOER) and the Department of Housing and Community Development (DHCD), along with Gateway Cities and local grassroots organizations. GGC is an environmental and energy efficiency program designed to reduce household heating and cooling energy use by increasing tree canopy cover in urban residential areas in the state’s Gateway Cities. The program plants trees (ranging from 6ft

to 10ft tall) with a goal of covering 5-10% of the target neighborhoods in new tree canopy cover. Trees are planted by DCR Bureau of Forestry, Urban & Community Forestry crews hired from local communities.

11. Air quality

Forest cover affects air quality in many ways. The forest filters particulates from the air, shades and cools forest interiors through evapotranspiration, and reduces wind and consequent drying. It is also becoming widely recognized that forests may play an important part in helping to mitigate the effects of global warming through long-term sequestration of carbon.

The international consensus on climate released in 2007 by the Intergovernmental Panel on Climate Change (IPCC) found that the warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level (*4th Assessment Report*, Intergovernmental Panel on Climate Change, 2007).

The 1990 report of the National Association of State Foresters Global Warming Committee suggests that, second to reducing our worldwide consumption of fossil fuel energy, increasing the sequestration of carbon in trees and wood products is of utmost importance in helping to mitigate the buildup of atmospheric carbon and the resultant greenhouse effect. Improved forest management and wood utilization can increase the amount of carbon absorbed by forest stands, as well as effectively delaying the release of carbon dioxide through long-term storage in wood products.

Forests are important for removing carbon dioxide, a greenhouse gas, from the atmosphere and storing it for long periods of time. Carbon dioxide is stored in the roots, stems, branches, and leaves of trees, and in the forest soil. It is estimated that 50 percent of carbon in a forest is stored in the forest soil, 36 percent is stored in living plants and trees, 8 percent is stored in deadwood, and 6 percent is stored in the leaf litter (Catanzaro, D'Amato, Increasing Forest Resiliency for an Uncertain Future, 2016). When forest soils are disturbed, and trees are removed for development, much of the stored carbon is returned to the atmosphere, and the carbon storage capacity of Massachusetts forestlands is reduced.

12. Mineral resources

There are a variety of mineral resources in Massachusetts, but relatively few are of commercial quantity or quality. Historically, many of the minerals listed below were commercially exploited, but now only sand, gravel, limestone, traprock and granite remain commercially significant. Non-metallic minerals present in Massachusetts include: alum, asbestos, barite, clay, coal, corundum, emery, cyanite, feldspar, garnet, graphite, lime, lithium compounds, mica, novaculite; precious stones of beryl, chiastolite, jasper, rhodonite, spinel and tourmaline; sand and gravel, silica; stone including granite, limestone and marble, sandstone, traprock, talc and sandstone. Metallic minerals include: copper, gold, iron, lead, manganese, molybdenum, nickel, silver, tin, and zinc.

Sand and gravel are ubiquitous in Massachusetts and resulted from glacial deposition. Especially prevalent in major river basins, these deposits serve as groundwater aquifers. Extensive outwash plains in Plymouth County, Cape Cod, Nantucket, and Martha's Vineyard are substantial areas of sand and gravel and constitute the stratum for water supply in those areas. Commercial exploitation of sand and gravel constitutes the greatest competitive use of the forest from the standpoint of mineral extraction. Limestone is confined to Berkshire County, in the western part of the state, and though prevalent is mined significantly in two quarries. Thus, in terms of area, limestone mining has little effect on the forest resource, except in a localized way. Traprock is mined as well with major quarries located in the Connecticut River Valley.

III. THE FUTURE OF THE FOREST RESOURCE: CRITICAL ISSUES

A. Forest Fragmentation

The overall acreage and species composition of the Massachusetts forest are becoming far less of a concern for forest planners than the pattern of forest ownership and the impacts that this pattern will have on community land use in the future. Of the 3 million acres of forests in Massachusetts, 64% is in the private ownership of individuals, corporations, farmers, and the forest industry. The remaining 36% is in public control of state, county, municipal, or federal government. Public land has increased greatly since 1993 when the split was 84% private land and 16% public.

The Harvard Forest Wildlands and Woodlands report published in 2017 stated that development in New England eliminated 24,000 acres of forest each year from 1990 to 2010. At that rate, another 1.2 million acres of farms and forestland will be lost to development in the region in the next 50 years. They stated that in 2010, after 150 years of increasing forestland acreage in New England, the trend reversed and forested acres in the region began declining (Harvard University, Harvard Forest, Wildlands and Woodlands, Farmlands and Communities, 2017). The increase had been fueled mainly by abandonment of farmland that reverted to forest. By the 21st century, there was little unused farmland left to be abandoned that could offset the continuing loss of forest to development.

The division and sale of large forested tracts in southern New England threatens the integral value of forest ecosystems. Parcelization of woodland in Massachusetts is corroborated by the results of the Forest Service's landowner surveys of 1972 and 1984. In 1972, there were 103,900 private forest owners who collectively owned 2,432,300 acres for an average of 23.4 acres per owner. Twelve years later (1984) the number of owners increased to 235,200, but the forest-base remained nearly the same. Today, 93% of forest ownerships are between 10 and 99 acres in size. (Butler, et al, 2016).

Small parcels usually are uneconomical to manage and may lead to forced sales to a developer with little intent to keep the property in its natural state. Though the tract may not be developed or subdivided immediately, its speculative ownership removes it from the roster of lands managed for future productivity and open space. With the shrinking acreage of contiguous

ownership, management and productivity of forest lands will be increasingly difficult and less cost-effective. The future of the region's already weak forest products industry is at stake, while clean air and water, recreation, wildlife, and aesthetic values of the state's woodland are threatened.

Massachusetts' current use programs - Chapters 61 for forestlands, 61A for agriculture land, and 61B for recreation land - give preferential tax treatment to landowners who maintain their property as open space for timber production, agriculture or recreation. Chapters 61 and 61A allow substantial property tax deferment for woodland owners who follow an approved forest management plan. Though Chapter 61B also avails forest landowners tax relief, no management plan is required. The current use programs do not permanently protect land as properties can be withdrawn upon payment of penalties. The laws do, however, grant a transferable right of refusal to the town if classified land is to be sold for conversion to another use.

As of January, 2018, there are 492,801 acres of forestland and 13,574 landowners enrolled in Ch. 61 and Ch. 61A. That is 25% of the private forestland in the state. This is a significant increase from 1990 when 270,000 acres, or 10% of private forestland, were enrolled in the program.

B. Availability of Timber to the Wood Products Industry

Increasing fragmentation of the resource base, combined with a shorter tenure of ownership of forest land, has had a great impact on the timber industry in the Commonwealth. Loggers and sawmillers face difficulties in obtaining timber from smaller parcels of land. Escalating operating costs, expensive machinery, fuel and labor expenses, and a shrinking labor pool, have accompanied a rise in what the harvester must pay to buy standing timber.

Many landowners are not aware of the value of the timber on their woodlands and those that are may be reluctant to harvest timber. In a recent (2011-2013) forest landowner survey, respondents most commonly listed: to enjoy beauty or scenery, to protect nature or biological diversity, to protect water resources, privacy, and to protect or improve wildlife habitat as their most important reasons for owning forestland. Each of these was listed on over 64% of the responses. Firewood and timber production were listed on only 30% and 17% of the responses, respectively. Seventy-five percent of respondents have harvested firewood from their land and over 30% have harvested timber (Butler, et al, 2016).

The wood industry must do a better job of assuring landowners that a timber harvest can be completed without extensive damage to the remaining trees and how it can actually enhance the values they deem important, such as habitat, water protection and biodiversity.

C. Impacts on Wildlife

Although stable populations of much of our wildlife, including wild turkey, black bear and white-tailed deer have been reestablished, many species still need our protection. The variety,

frequency, distribution and health of Massachusetts' wildlife depends directly on the size, species and distribution of forest trees, but contiguity and connectivity are also important ecosystem requirements. Wildlife biologists are questioning the utility of setting aside relatively small, unconnected preserves to protect wildlife. They are advocating a system of linkages or "corridors" between these preserves so they may continue as biologically diverse ecological systems in an increasingly fragmented and urbanized land base. Protecting existing riverside corridors, an infrastructure upon which wildlife is vitally dependent, is a beginning. The Massachusetts Riverways Project was initiated to achieve that goal.

The University of Massachusetts Amherst, in partnership with The Nature Conservancy and state agencies, developed the Conservation Assessment and Prioritization System (CAPS) computer program which mapped an Index of Ecological Integrity (IEI) for all communities in Massachusetts. The IEI delineates the relative wildlife habitat and biodiversity value of any point on the landscape based on landscape ecology principles and expert opinion.

Another tool used to assist with identifying priority areas for land protection is BioMap2. The Massachusetts Department of Fish & Game, through the Division of Fisheries and Wildlife's Natural Heritage & Endangered Species Program (NHESP), and The Nature Conservancy's Massachusetts Program developed BioMap2 to protect the state's biodiversity in the context of climate change. BioMap2 combines NHESP's 30 years of rigorously documented rare species and natural community data with spatial data identifying wildlife species and habitats that were the focus of the Division of Fisheries and Wildlife's 2005 State Wildlife Action Plan (SWAP). BioMap2 also integrates The Nature Conservancy's assessment of large, well-connected, and intact ecosystems and landscapes across the Commonwealth, incorporating concepts of ecosystem resilience to address anticipated climate change impacts.

D. Sustainable Forestry

Sustainable forestry focuses on the retention, conservation and health of forest land in the face of increasing development so that our forests continue to provide the multiple benefits that citizens of the Commonwealth expect. This includes maintaining a viable forest products industry, sufficient economic incentive for landowners to retain and manage forest land, and attention to the protection and management of Massachusetts wildlife. It also involves education of the private landowners who control the fate of our forests.

Cooperation between the diverse groups who use the forest resource is vitally important to the goal of sustainable forestry. These groups include the forest industry, passive recreation users, wildlife managers and observers, watershed managers, foresters, forest landowners, hunters, anglers, local land trusts, and any other group who has an interest in maintaining a viable, healthy and productive forest for all users.

Forest landowners need improved techniques for realizing timber, wildlife, and recreational benefits from the same piece of forest land. Charging hunting and recreation fees to users is an option that is popular elsewhere in the eastern United States. Favorable tax programs for landowners who practice wildlife management are another option.

The Massachusetts Working Forests Initiative, begun in 2009, is a suite of programs designed to aid landowners in sustainable forest management and long-term conservation, while providing local forest products to our economy, enhancing wildlife habitat for declining species and permanently protecting forest land. It includes a wide network of partners including MassAudubon, the Franklin Land Trust, Mount Grace Land Conservation Trust, and UMass Amherst. The program includes funding for forest stewardship planning and has aided in the significant increase of forestland under management plans and enrolled in the Chapter 61 programs. As a result, timber harvests on properties with forest stewardship plans has increased from 1% in 2003 to nearly 20% of the total state harvests in 2017 and the volume of timber harvested under a management plan increased from 10% to nearly 40% of all timber harvested in the state (MA DCR, 2018).

E. Conserving the Land Base

The problems caused by fragmentation of forest land must be addressed. Most forest landowners in Massachusetts retain ownership of their property for less than ten years and the goals of each successive landowner often differ. In monetary terms, the development potential of forest land in Massachusetts almost always exceeds its value for forestry uses. These factors make preservation of our forest land a difficult task. The Commonwealth uses two tools as an important part of the solution: conservation restrictions and the Chapter 61 programs (the current use property tax law). Figure 2 shows all land in Massachusetts that is permanently protected.

Land trusts are non-profit entities than can acquire property through a conservation restriction purchase or donation. In some cases, land trusts have assembled development packages for properties which include a lease to the original landowner for farming or timber production and a limited cluster development on a corner of the farm acreage so that the landowner can realize some income from the property. They also purchase lands on occasions when rare or unique features are at stake and the possibility of a gift of the land or an easement does not exist. Many will hold land for purchase by a governmental entity. Currently the Division of Conservation Services estimates that there are 80,000 acres in Massachusetts protected by conservation restrictions held by land trusts.

Generally, one of the ultimate stewardship goals of a land trust is the use and management of land for the public benefits to be derived from open space and natural area protection. The kinds of features of interest to land trusts include, but are not limited to, areas which contain unique wildlife, high quality wildlife habitat, rare plants or unusual plant communities, interesting or unusual geologic or archaeological features or particularly large open space areas unbroken by development. Size of the areas for consideration is usually less important than quality and defensibility against disturbance. One important aspect of land trusts is that they are community based and usually operate within a specific geographical area and so represent a local perspective on the value of land to the community.

Woodland owners enrolled in a Chapter 61 program have made a long-term commitment to managing their forest resources. All parcels that fall within lands classified under this legislation may be initially identified as potential willing sellers. Also, the management plans associated

with those parcels are either already in the Stewardship Plan format or can be easily amended to include Stewardship goals as the Chapter 61 format was retained as the basis for the Stewardship Plans.

New and innovative approaches to keeping forest land in an undeveloped and productive state are gaining popularity in the Commonwealth. A healthy forest industry with profitable markets is a vital part of this picture.

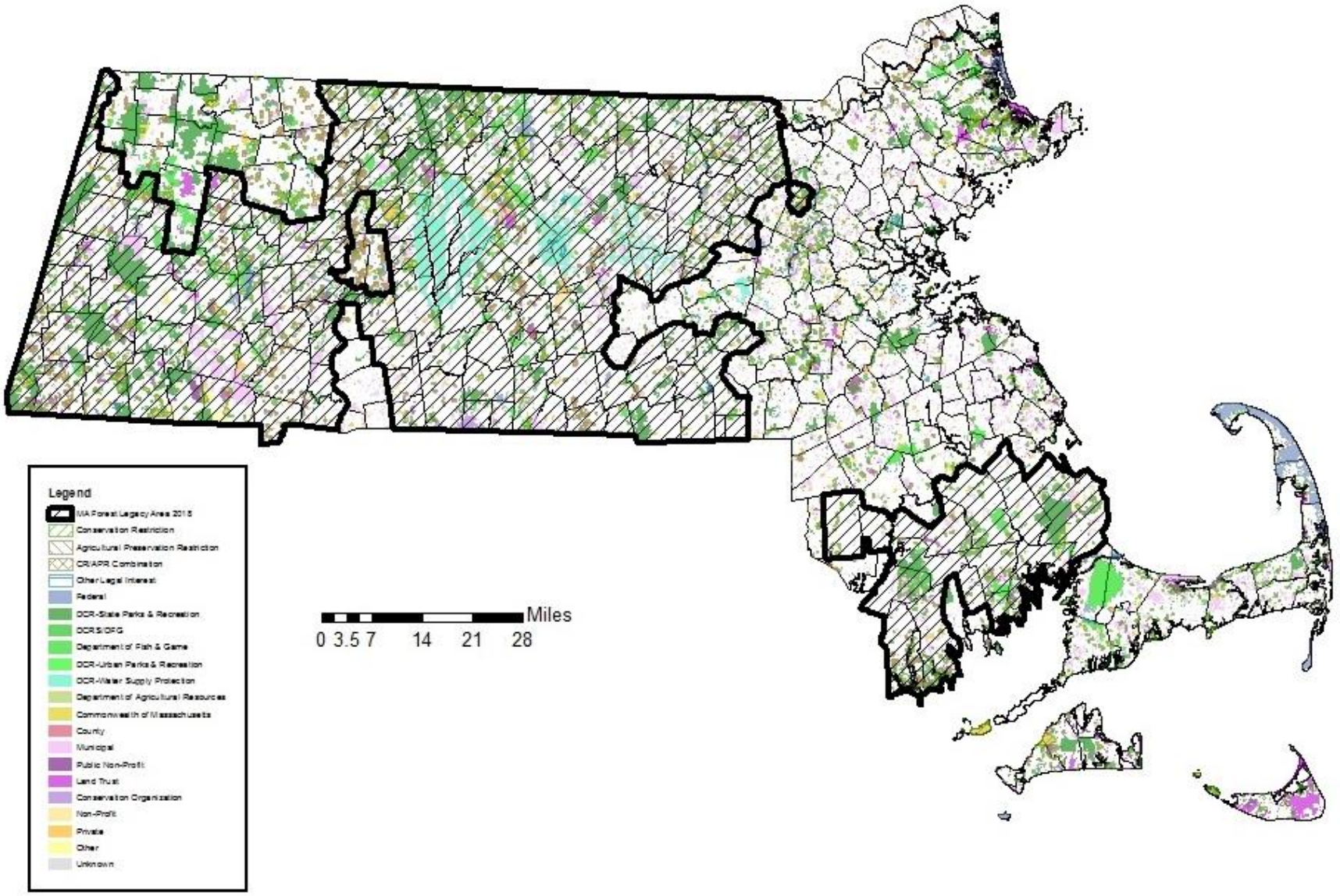

Figure 2. Massachusetts Protected Open Space Map

IV. THE FOREST LEGACY PROGRAM: ADDRESSING THE PROBLEM

A. Massachusetts Forest Legacy Program

The forests of Massachusetts contribute greatly to our economy and provide the ecological systems and visual landscapes essential to our quality of life. Historically, demands for raw materials (wood, land for development) have competed with the need to protect and conserve natural resources (water supply, recreation areas, wildlife). Meeting these diverse needs on a sustained basis without sacrificing the integrity and the productive capacity of the resource base is the challenge that we face in the Commonwealth.

Several social and economic trends have significantly affected the balance of natural resource utilization and protection in the Commonwealth. Increasing residential and commercial pressure has led to the development of substantial areas of forested land, raising questions of water supply protection and altering the visual landscape to which communities are accustomed. Development pressures are compounded by the fact that agricultural and wood products industries cannot match other economic incentives for land ownership.

Massachusetts is fortunate to have a strong network of land trusts and related conservation organizations, along with local, state, and federal government support for land conservation. Partnerships have developed from this network, which have demonstrated a sound record of land conservation state-wide. Through their collective efforts, these partnerships have cultivated a landowner public that is knowledgeable of, and receptive to, the concept and benefits of land conservation.

In the fall of 1991, a committee was convened to implement the Forest Legacy Program in Massachusetts, composed of state resource management professionals and private sector representatives of land trusts and other conservation related organizations, such as Watershed Associations. These organizations already had a constituency, had demonstrated their willingness, and could be counted on to develop public support and program accountability. The expertise of the land trusts, other conservation related organizations, and state land conservation agencies played a key role in the genesis, evolution, and success of the Forest Legacy Program in Massachusetts.

Since the beginning of the Forest Legacy Program in Massachusetts, a significant number of new and updated resources and tools have been developed. The most significant of these is the general availability of Geographic Information Systems (GIS) software and data. The Massachusetts Forest Action Plan includes detailed GIS analysis and discussion of relevant information about both public and private lands and addresses the issue of how best to maintain the integrity of forestlands for future generations in the Commonwealth of Massachusetts.

Additional resources and tools are now available to state agencies and all partners involved in the forest conservation community. These resources will enable state agencies and partners to identify new Forest Legacy Areas and prioritize projects in which to conduct landscape scale forest conservation. Additionally, outreach and education information has been developed with the intent to help woodland owners make informed decisions about the future of their land. Below is a partial list of these resources:

Losing Ground

"Over the past 40 years, the landscape of Massachusetts has been transformed by new residential and commercial development. Eastern and southeastern Massachusetts have undergone the most change, but virtually every community in the Commonwealth has experienced rapid growth driven by economic and demographic factors. Starting in 1991, Mass Audubon has analyzed these changes every five years using the most up-to-date technology and methods, providing conservationists, town planners, and agencies with information for planning and advocacy."

MAPPR 2.0

"Mapping and Prioritizing Parcels for Resilience (MAPPR) allows land conservationists to identify the parcels within an area of interest that are the highest priorities for protection based on habitat quality, climate change resilience, and other metrics such as parcel size and adjacency to existing protected parcels."

Resilient and Connected Landscapes

"The Nature Conservancy's Resilient and Connected Landscapes project is the first study to comprehensively map resilient lands and significant climate corridors across Eastern North America. Released in October 2016, the study took eight years to complete, involved 60 scientists, and developed innovative new techniques for mapping climate-driven movements."

Massachusetts Wildlife Action Plan (SWAP)

"This Plan presents the 570 Species of Greatest Conservation Need in the Commonwealth, the 24 types of habitat that support these species, and the actions necessary to conserve them."

Massachusetts Wildlife Climate Action Tool

"The Massachusetts Wildlife Climate Action Tool can be used by local decision-makers,

conservation managers, land trusts, regional planners, landowners, and community leaders in Massachusetts who are interested in taking action in response to climate change. Users can access information on climate change impacts and the vulnerabilities of various fish and wildlife and their habitats. The tool also allows users to explore adaptation strategies and actions to help maintain healthy, resilient natural communities in the face of climate change."

BioMap2: Conserving the Biodiversity of Massachusetts in a Changing World

"BioMap2 is designed to guide strategic biodiversity conservation in Massachusetts by focusing land protection and stewardship on the areas that are most critical for ensuring the long-term persistence of rare and other native species and their habitats, exemplary natural communities, and a diversity of ecosystems."

The Critical Linkages Project

"The University of Massachusetts Amherst is working in partnership with The Nature Conservancy and state agencies to complete a comprehensive analysis of areas in Massachusetts where connections must be protected and restored to support the Commonwealth's wildlife and biodiversity resources. The Critical Linkages project is developing spatially explicit tools, including models, maps and scenario-testing software, for use in mitigating the impacts of roads and railroads on the environment."

Nature's Network

"Nature's Network is a collaborative effort facilitated by the U.S. Fish and Wildlife Service Science Applications program that brings together partners from 13 states, federal agencies, nongovernmental organizations, and universities to identify the best opportunities for conserving and connecting intact habitats and ecosystems and supporting imperiled species to help ensure the future of fish and wildlife across the Northeast region."

Your Land, Your Legacy: Deciding the Future of Your Land

"The goal of this publication is to help these landowners and their families make an informed decision about the future of their land."

In addition to these resources and the extensive analysis of Massachusetts' natural resources that has been done, new initiatives, programs, forums, and networks have developed that have impacted the direction of forest conservation in Massachusetts and the whole New England region. Some of these are listed below:

Wildlands and Woodlands

"Wildlands and Woodlands is a science-based conservation vision for the New England landscape. The project is led by the Harvard Forest and Highstead and is advanced by partnerships, organizations, agencies, and individuals across the region."

1. **Vision**

   "The Wildlands and Woodlands (W&W) vision calls for a 50-year effort to conserve 70 percent of New England as forest permanently free from development, plus at least 7 percent of New England as farmland. Through the leadership and commitment of landowners, these conserved lands will continue to power the region's traditional land-based economy and provide irreplaceable environmental and social benefits for current and future generations."

   "W&W recommends that voluntary, community-driven conservation result in approximately 90 percent of the forest conserved as woodlands sustainably managed for timber harvesting and other values, and 10 percent conserved as wildlands to protect biodiversity and wilderness. W&W further envisions an expanding amount of acreage devoted to local, sustainable agriculture, compact development, and local communities that adopt sustainable transportation, energy and land use policies."

2. **Voices from the Land**

   "Voices from the Land: Listening to New Englanders' Views of the Future, released in September 2018 by W&W lead partner Harvard Forest and the Science Policy Exchange, with support from W&W lead partner Highstead, provides a stakeholder-driven approach for addressing the important question: What does the future hold for the New England landscape?"

3. **Regional Conservation Partnerships**

   "People across the region are banding together in Regional Conservation Partnerships to increase the pace and scale of land protection. This is the exciting new face of conservation in New England, and beyond."

4. **Academics for Land Protection in New England** (ALPINE)

   "ALPINE is an emerging network that seeks to explore and expand the role that New England academic institutions play in conserving the natural heritage of the region. ALPINE helps academics connect, collaborate, and conserve through knowledge exchange and targeted activities that catalyze the pace and scale of conservation."

Massachusetts Land Conservation Conference (since 1990)

"The Massachusetts Land Conservation Conference provides an opportunity for staff and volunteers from land trusts; urban and rural community groups; colleagues from federal, state and local government agencies; students; and philanthropists to participate in a full day of workshops and discussions that focus on fostering a green future in our state through land conservation and greening strategies." See A Land Conservation Vision Summary for Massachusetts, from the "20 Year Land Conservation Vision Workshop Summary of 4 Work Group Reports at the Massachusetts Land Conservation Conference,

March 27, 2010".

The Massachusetts Forest Forum (since 2004)

"The Forest Forum is a diverse group that includes: about 30 forest landowners, private and public foresters, timber harvesters, mill owners, land trusts and environmental organizations, and the Executive Office of Energy and Environmental Affairs. The Forum has met each spring and fall since 2004 and was created to improve the viability of Massachusetts' forests, forestry, and forest products industry by using sustainable practices."

Land Trust - State Agency Retreat (since 2002)

The first Land Trust – State Agency Retreat was convened to improve the partnership between the land trust and state agency communities and increase conservation in Massachusetts. One of the products of that retreat was a guide to all state agency land conservation programs and grants, so that land trusts could match the land project with the most appropriate program. Discussion topics are chosen that will help improve land conservation and stewardship and guest speakers are invited to present and discuss new innovative approaches to land conservation.

The above will undoubtedly influence future forest conservation efforts. Participation and involvement in these ongoing discussions provides innovative ideas and insight from many forest conservation stakeholders and is proving to be beneficial in the advancement of land conservation. Many local, regional, state-wide, and multi-state partnerships have evolved from these efforts and together they are focused on addressing the continued forest fragmentation, parcelization, and conversion threats to the Massachusetts and New England forest.

These initiatives provide new opportunities for the land conservation community to learn from one another. Local, regional, state-wide, and multi-state partnerships have also evolved from these efforts. These partnerships, along with all the GIS data, tools and resources now available, have transformed the once typical single tract project proposals submission for Forest Legacy Program funding consideration from Massachusetts. Massachusetts, with the foresight of its many partners, has evolved to submission of large landscape scale multi-tract / multi-landowner projects. Massachusetts and its partners recognized the need to focus on landscape-scale projects, not only to connect the fragmented resources among many landowners, but to also be competitive with other states that have the advantage to still have many large blocks of land under single ownerships.

These projects have been highly successful in increasing the pace of forest conservation here in Massachusetts; however they are also complex and require a significant amount of coordination and collaboration among many partners. What goes on behind the scenes in these highly complex projects is most often never quantified in terms of what these projects have done to leverage additional forest conservation outside of the Forest Legacy Program.

The purchase, by Fee or Conservation Restriction, of these environmentally important and threatened forested lands under the Forest Legacy Program from knowledgeable, willing owners will protect valuable woodland from conversion to non-forest uses in perpetuity. Moreover, since

forest land acquired under the Forest Legacy Program in Massachusetts is required to be managed under a Forest Stewardship Plan that addresses traditional forest uses and environmentally important public values, privately-owned working forests would be insured, as well as the protection of these environmental values and their contribution toward rural economies.

B. Massachusetts Forest Legacy Program Goal

The goal of the Massachusetts Forest Legacy Program is to prevent the conversion of environmentally important forestland to non-forest uses, and to provide the opportunity for the continuation of traditional forest uses. The importance of large, landscape scale, collaborative projects with multiple Partners in achieving this goal cannot be emphasized strongly enough. Massachusetts has worked with Federal, State, and Municipal Governments; qualified non-profit organization such as land trusts and watershed associations; and other conservation organizations with great success. This includes collaborative projects that cross state boundaries.

These projects will also need to seek out and utilize multiple funding sources (Federal, State, and Municipal Governments; qualified non-profit organizations; conservation/environmental philanthropic organizations) for both acquisition and due diligence related expenses, as they contribute to the FLP cost-share requirements. The donation of acquisition and due diligence, related expenses toward the FLP required cost-share from willing sellers has to-date been exemplary.

There remains the need for long-term funding for the continued monitoring and enforcement of the conservation easements acquired with FLP funds or donated as an FLP cost-share.

C. Eligibility Criteria for a Forest Legacy Area

The history of the Massachusetts Forest Legacy Area is catalogued in Appendix A and represents a rich and varied assortment of forest lands. Many forest lands across Massachusetts meet the Forest Service eligibility criteria for the Forest Legacy Program. To determine the outstanding ones, each area, in addition to documentation of environmentally important public values within its boundaries, will be evaluated within its local, regional, state-wide and multi-state context. Floodplains, extensive wetlands, high elevation forests with characteristic vegetation, threatened and endangered species habitats, coastal plain aquifers, riverine and coastal shorelines all constitute distinctive, regionally occurring, natural resources in Massachusetts.

The Massachusetts Forest Action Plan (see: "*An Assessment of the Forest Resources of Massachusetts*" and "*Forest Resource Strategies of Massachusetts*"), provides analyses that aids Massachusetts in the identification of environmentally important forestlands threatened by conversion to non-forest use. Its data and analysis can be used in the development of project proposals that prioritize areas of the Commonwealth where environmentally important resources and threats occur and develop strategies and partnerships that incorporate all available

programmatic and external land conservation tools and resources.

Ideally, future Forest Legacy Area proposals will embody multiple environmentally important public values; be acquirable and enjoy public support; be threatened with conversion to non-forest use; abut and/or plan to connect existing permanently protected public open space tracts, blocks, and corridors; be delineated by man-made (physical infrastructure) and/or natural boundaries (physiographic, geologic, hydrologic/riparian); and contribute to forest conservation at the local, regional, state-wide, and/or multi-state scale.

In early 1992, land trusts and other conservation organizations across the state were invited to submit potential Forest Legacy Areas that would meet Forest Service eligibility criteria. From those proposals, the committee selected five areas for recommendation to the US Forest Service. Since the approval of the original AON in 1993, two new areas and two area expansions have been proposed, submitted, and approved by the US Forest Service. At this time, these areas are consolidated into a single Forest Legacy Area.

Below is a list of the Massachusetts Forest Legacy Program eligibility criteria:

1. **Legacy area criteria**

   For inclusion in the Forest Legacy Program, lands must:

   a. Be threatened by present or future conversion to non-forest uses
   b. Contain one or more of the following environmentally important public values:
      i. Timber and other forest commodities;
      ii. Scenic resources;
      iii. Public recreation opportunities;
      iv. Riparian areas;
      v. Fish and wildlife habitat;
      vi. Known threatened and endangered species;
      vii. Known cultural resources; and
      viii. Other ecological values.
   c. Provide opportunities for continuation of traditional forest uses
   d. Reflect environmentally important public values at a landscape-sale (local, regional, state-wide, and/or multi-state)

2. **Evaluation factors**

   The nominator of a proposed Forest Legacy Area may quantify and qualify the information utilizing these evaluation factors and provide a persuasive argument for the nominated area. This list is provided as a guideline for future nominations.

a. Threat by conversion to non-forest uses:
    i. Type and level of threat
    ii. There are various kinds and degrees of threat to valuable forested areas, such as encroaching housing development, improved town roads, sewer line and power line extensions into undeveloped areas, and fragmentation of land ownership into smaller, less manageable parcels. In determining the threat to an area, factors to consider include the following:
        - Area is in danger of conversion to non-forest use within 5 years.
        - Area may remain wooded, but will become further fragmented.
        - Area is not under Ch. 61/A/B or other forest management program.
        - Area may remain wooded but, is in danger of being over-harvested.

b. Contain one or more important values:
    i. Forest commodities such as
        - Timber
        - Cordwood
        - Pulpwood
        - Biomass
        - Carbon Storage
        - Other Forest Products (i. e. – maple syrup, berries, mushrooms, bark, burls, cones, nuts, herbs, etc.)
    ii. Scenic Resources

    The scenic aspects of a natural resource area may often be subjective, but there are several means of measuring the special qualities that make a given area stand out. DCR's Scenic Landscape Inventory and the Massachusetts Scenic Roads Act provide a means of citing scenic qualities. In identifying scenic amenities of a Forest Legacy Area, these factors must be considered.
        - Area is listed in the Massachusetts Landscape Inventory Project, 1982 (see: MassGIS for shapefile). Area includes locally important panoramic views and / or exceptional short views.
        - Area is situated along a designated scenic road (see: MGL Ch. 40 Sec. 15C)
    iii. Public recreation opportunities

    Recreational use of a proposed Forest Legacy Area by the public is an important component. Documents such as the Massachusetts Statewide Comprehensive Recreation Plan (SCORP) will provide the proponent of a Forest Legacy Area needed information on the relative importance of the following factors:

- Water based recreation is present - boating, swimming, fishing, rafting, canoeing.
- Trail based and or day use recreational opportunities exist - hiking, picnicking, horseback riding, ice skating, cross country skiing.
- Natural resource recreational activities are available - camping, hunting, nature touring, etc.
- Adjacent land is protected.

iv. Riparian areas

In an urbanizing state such as Massachusetts, one of the most important forest "products" may be water. Proper management of forest lands through institution of a Forest Legacy Area can increase the quality and quantity of water for the residents of the Commonwealth. Factors to be included in determining the value of riparian areas:

- Area is situated on waters that are identified as Coldwater Fish Resources by the MA Division of Fisheries and Wildlife (see: MassGIS Data: Coldwater Fish Resources).
- Area has extensive (over 300') river or wetland shoreline.
- Area includes floodplain components (see: MassGIS: FEMA flood hazard maps).
- Area contains a minimum 80' strip of native trees and shrubs as a natural buffer and sediment filter, per USFS guidelines outlined in Riparian Forest Buffers.
- Area contributes to important public ground supply wellhead protection areas (see: MassGIS Data: MassDEP Wellhead Protection Areas) and / or surface water supply area (see: MassGIS: Surface Water Supply Watersheds).
- Area contains important wetlands; especially isolated wetlands and/or vernal pools (see: MassGIS Data: MassDEP Wetlands and NHESP Certified Vernal Pools).

v. Fish and wildlife habitat

Preventing the fragmentation of forest tracts into smaller units is crucial to maintaining viable populations of particular wildlife species. Factors to be considered include:

- Area contains outstanding habitat, as evaluated per the Massachusetts Forest Action Plan, Massachusetts Wildlife Action Plan and Mass Natural Heritage Endangered Species Program BioMap2,
- Area contains ecologically recognized habitat for one or more species that include:
    - ◊ Forest interior nesting birds

- ◊ Significant populations of resident species
- ◊ Neo-tropical migrant species
- ◊ Areas for resting and feeding of migratory species.

- Area exhibits connective habitats, corridors, habitat linkages and areas that reduce biological isolation.
- Known threatened and endangered species.

As urbanization and fragmentation of forest lands continues the need to give special attention to threatened species of fish, wildlife and plants increases. Areas nominated for the Forest Legacy Program should be inventoried for such natural habitats that may contain imperiled species, considering the following factors:

- Area contains plant or animal species on Massachusetts state list as Endangered, Threatened or of Special Concern (consult Massachusetts Natural Heritage Endangered Species Program at Mass. Division of Fisheries and Wildlife).

vi. Known cultural resources

Material evidence of the earlier human occupation in Massachusetts comprises a unique and irreplaceable resource, as do historic features and vernacular landscapes. Factors to consider:

- Area contains recorded archeological site; e.g. burial, midden, fire pit, or artifacts of Contact, Woodland or Archaic periods.
- Area includes historic features; e.g. charcoal kilns, church or village sites, battle sites, historic roads, paths or lookouts.

vii. Productive soils

Of the 3.2 million acres of forests in Massachusetts, nearly 67% are classified as "prime," based on the productive soils upon which they grow. This classification system is useful in determining the importance of individual tracts within a Forest Legacy Area:

- Area contains soils of Prime, or State or Local significance for agriculture (see: MassGIS Data: Prime Farmland Soils.
- Area contains soils of Prime, or State or Local significance for forestry (see: MassGIS Data: Prime Forest Land).

viii. Other ecological values

In addition to the characteristics already outlined, an area may exhibit additional or exceptional conditions that are important and add to the quality of the nominated Forest Legacy Area, such as:

- Area contains old growth forest.
- Area provides a mix of ecological communities.

- Area includes ecological communities which are dwindling in Massachusetts, such as vernal pools, mature riparian floodplain forest, and pine barrens.
- Area provides immediate watershed/water supply protection.

c. Provide opportunities for continuation of traditional forest uses.

Maintaining traditional forest uses is important in a Forest Legacy Area in that it permits owners to remain on the land without increasing demand for high-cost services such as schools, street clearing or repair by the town. Positive factors which reinforce this include:

i. Area will remain available for sugar bush operation, cordwood or timber management under a Forest Stewardship Plan.

ii. Area will continue to serve watershed and water filtration role.

iii. Area will continue to provide outdoor recreation opportunities.

d. Local, Regional, State-wide, Multi-state values

Through careful selection, Forest Legacy Areas should provide units that have not just local, but regional, state, and multi-state significance. The features and functions of these units should include:

i. Linkages for recreational values, such as trails, especially along river greenbelts, mountain ridges and parcels which connect existing publicly-owned lands.

ii. Public access to boating and swimming relative to the needs of local population centers and the effects of projected land use change.

iii. Public or private drinking water supply protection (ground or surface water).

iv. Scenic qualities having their basis in the traditional New England natural and cultural landscape.

v. Areas that can provide connectivity to conserve and protect important environmental values that will maintain environmental values and provide for mitigation and adaptation strategies.

3. Designation Requirements for Forest Legacy Areas

A Forest Legacy Area can be nominated for designation at any time by submitting a written proposal to the Massachusetts Forest Legacy Committee. Proposals for FLAs must include the following elements:

a. Location of geographic area on a map and a written description of the proposed FLA boundary;

b. Summary of the analysis used to identify the FLA and its consistency with the eligibility criteria;

c. Identification of important environmental values;

d. List of public benefits that will be derived from establishing FLA; and

e. Documentation of the public involvement process.

FLA boundaries must encompass forestlands with significant environmental and other resource-based values. Areas may also include non-forested areas, such as farms, if they are an integral part of the landscape and are within logical boundaries.

D. Massachusetts Forest Legacy Area

At this time, the original Massachusetts FLAs and subsequent Amendments/Expansions are combined into a single FLA. This will provide easier administration and greater opportunities for land protection. This update also provides the opportunity to add new areas to the state FLA. The proposed additions are areas with significant areas of forestland that provide critical benefits or are under significant threat from development or environmental factors.

The additions include three new regions; Northeast Massachusetts, Central Massachusetts, and Southeastern Massachusetts, and result in the inclusion of 157 cities and towns in the FLA. The Massachusetts Forest Legacy Area is shown in Figure 3. The Cities and Towns included within the boundary of the Massachusetts Forest Legacy Area, either the entire city/town or any portion of the city/town, are listed in Table 2 (towns added in 2019 are marked with an *).

1. Process for designating MA Forest Legacy Area

The 2010 Massachusetts Forest Action Plan analyzed the forest resources of Massachusetts through the lens of the Montreal Process that includes the following seven criteria:

Criterion 1: Conservation of Biological Diversity

Criterion 2: Maintenance of productive capacity of forest ecosystems

Criterion 3: Maintenance of forest ecosystem health and vitality

Criterion 4: Conservation and maintenance of soil and water resources

Criterion 5: Maintenance of forest contribution to global carbon cycles

Criterion 6: Maintenance and enhancement of long-term multiple socio- economic benefits to meet the needs of societies

Criterion 7: Legal, policy and institutional framework

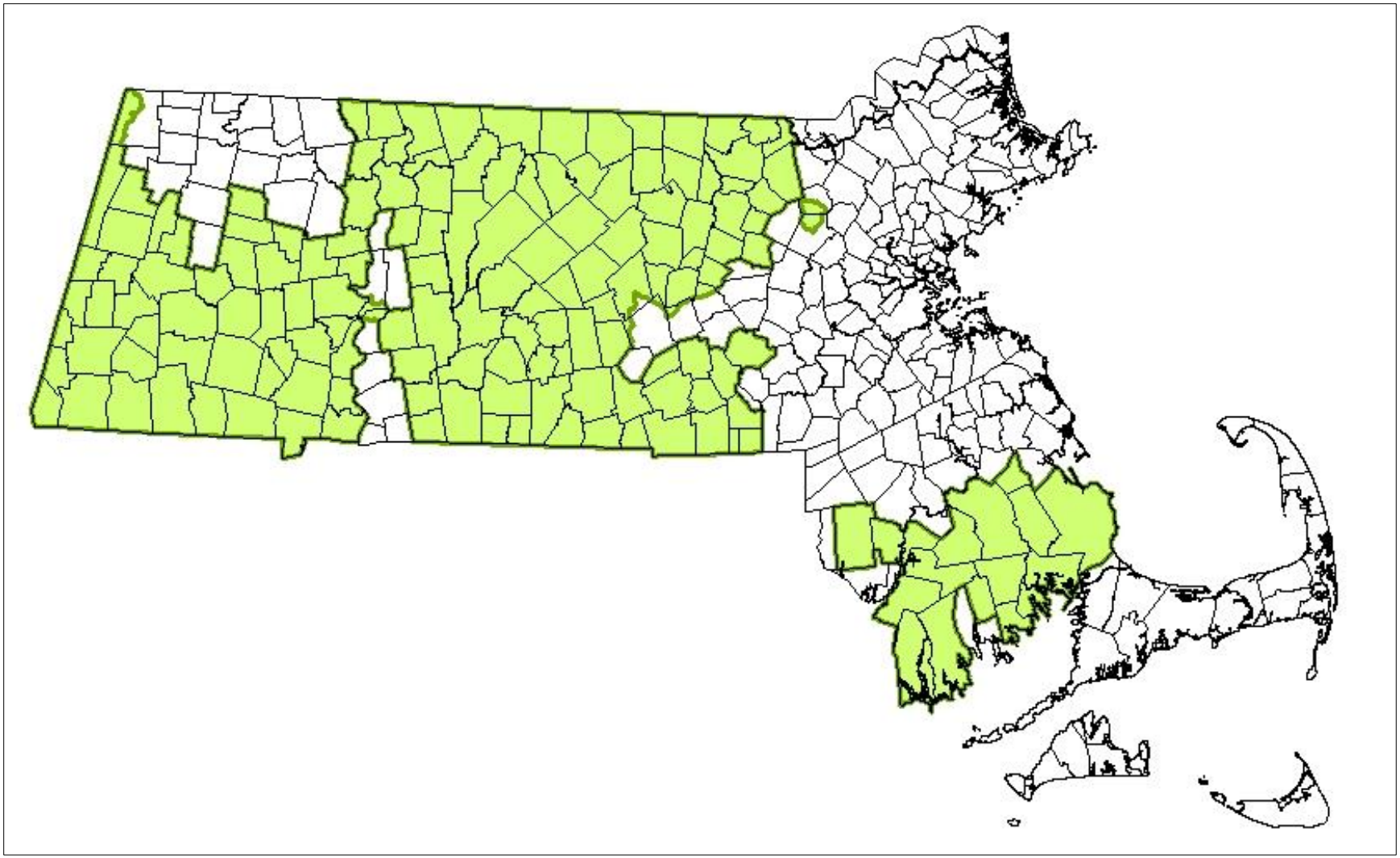

Figure 3. Massachusetts Forest Legacy Area Map

Acushnet*	Fall River*	Mendon*	Sandisfield
Agawam	Fitchburg	Middleborough*	Sheffield
Alford	Freetown*	Middlefield	Shirley
Ashburnham	Gardner	Millbury*	Shrewsbury
Ashby	Gill	Millville*	Shutesbury
Athol	Goshen	Monson	South Hadley
Ayer	Grafton*	Montague	Southampton
Barre	Granby	Monterey	Southbridge
Becket	Granville	Montgomery	Southwick
Belchertown	Great Barrington	Mount Washington	Spencer
Berkley*	Greenfield	New Braintree	Sterling
Berlin*	Groton*	New Marlborough	Stockbridge
Bernardston	Hadley	New Salem	Stow*
Blackstone*	Hampden	North Brookfield	Sturbridge
Blandford	Hancock	Northampton	Sutton*
Bolton*	Hardwick	Northborough	Templeton
Boxborough*	Harvard*	Northbridge*	Tolland
Boylston	Hatfield	Northfield	Townsend
Brimfield	Hinsdale	Oakham	Tyngsborough*
Brookfield	Holden	Orange	Tyringham
Carlisle	Holland	Otis	Upton*
Carver*	Holyoke	Oxford*	Uxbridge*
Charlton	Hopkinton*	Palmer	Wales
Chester	Hubbardston	Paxton	Ware
Chesterfield	Huntington	Pelham	Wareham*
Clinton	Lakeville*	Pepperell	Warren
Concord	Lancaster	Petersham	Warwick
Cummington	Lanesborough	Phillipston	Washington
Dalton	Lee	Pittsfield	Webster*
Dartmouth*	Leicester	Plainfield	Wendell
Deerfield	Lenox	Plymouth*	West Boylston
Dighton*	Leominster	Plympton*	West Brookfield
Douglas*	Leverett	Princeton	West Springfield
Dudley	Leyden	Rehoboth*	Westford*
Dunstable*	Littleton*	Richmond	Westminster
East Brookfield	Ludlow	Rochester*	Westport*
Easthampton	Lunenburg	Royalston	Wilbraham
Egremont	Marion*	Russell	Winchendon
Erving	Mattapoisett*	Rutland	Worcester

Table 2. Cities and towns in Massachusetts Forest Legacy Area

The Montreal Process criteria are linked to the three national priorities designated by the U.S. Forest Service State & Private Forestry (S&PF):

1. Conserve and Manage Working Forest Landscapes for Multiple Values and Uses
2. Protect Forests from Threats
3. Enhance Public Benefits from Trees and Forests

Using the combined parameters of the Montreal Process Criteria and the S&PF National Priorities, DCR and UMass DNR conducted a GIS analysis of the state to identify high priority forest resources. The data layers that were derived from this analysis include:

1. Conserve and Manage Working Forest Landscapes for Multiple Values and Uses Overlay (Figure 4)
2. Protect Forests from Threats Overlay (Figure 5)
3. Enhance Public Benefits from Trees and Forests Overlay
    a. Water Resources and Biological Diversity (Figure 6)
    b. Local Wood Production and Forest Sector Employment (Figure 7)
4. Synthesis Overlay
    a. Forest Functions, Benefits and Values (Figure 8)
    b. Forest Vulnerability (Figure 9)

These layers were then combined into one unified comprehensive overlay that identifies the highest priority forested landscapes of the state. Figures 4-9 show this analysis and eligibility criteria in relation to the Forest Legacy Area. Table 3 lists the resource statistics for all the towns in the Massachusetts FLA.

In addition to the consolidation of the original FLAs and subsequent Amendments/Expansions into a single FLA, the State Lead Agency, in consultation with the State Forest Stewardship Coordinating Committee, 40 new towns have been identified for inclusion in the Massachusetts Forest Legacy Area and are recommended to the Forest Service for designation. The Massachusetts Forest Legacy Area includes the five previously approved Forest Legacy Areas; Western Massachusetts FLA; Heritage Corridor FLA; North Quabbin Corridor FLA; Estabrook Woods FLA; and Nashua River Greenway FLA (see Appendix for original boundary descriptions), and three new regions in northeastern Massachusetts, central Massachusetts, and southeastern Massachusetts.

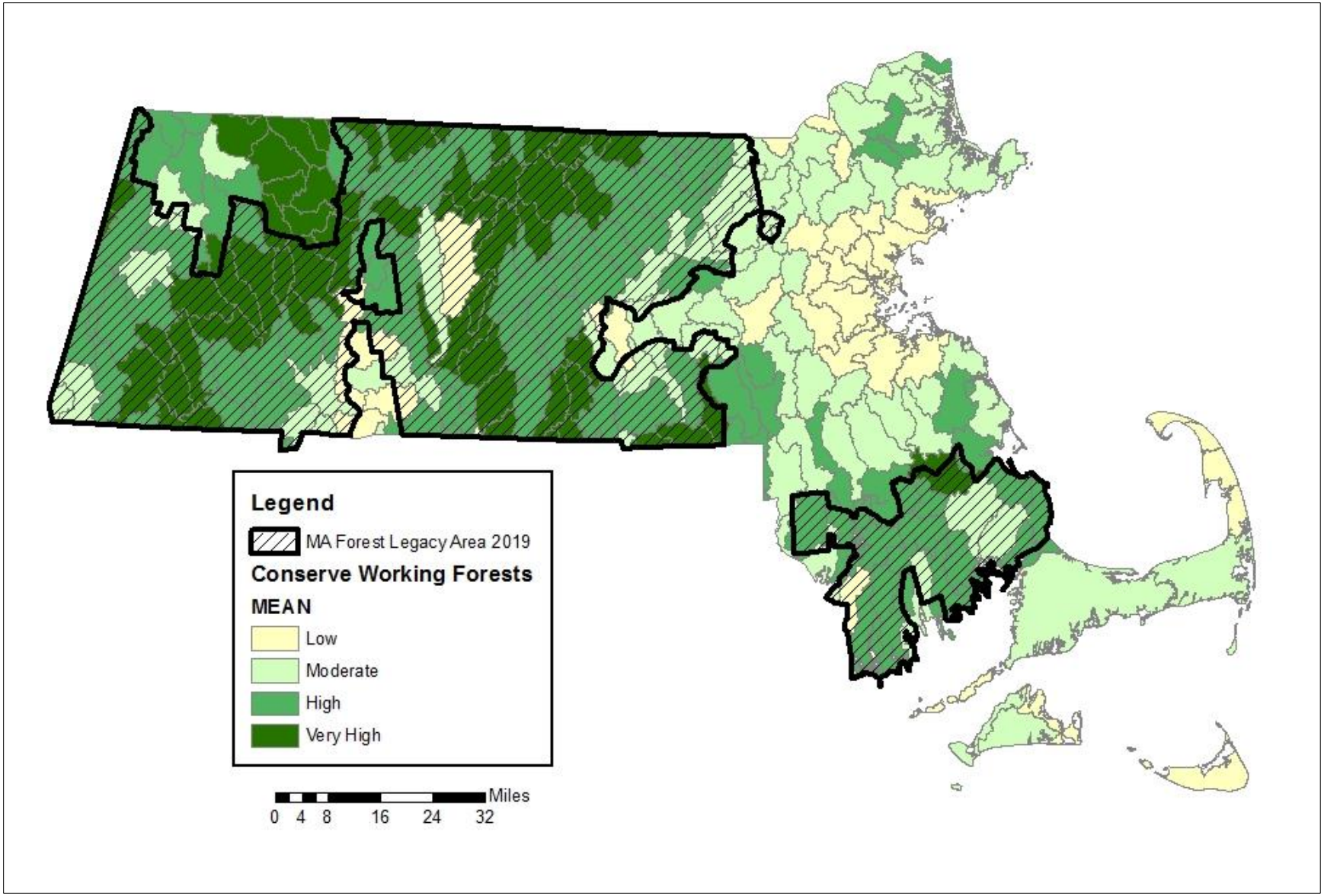

Figure 4. Conserve and Manage Working Forest Landscapes for Multiple Values and Uses

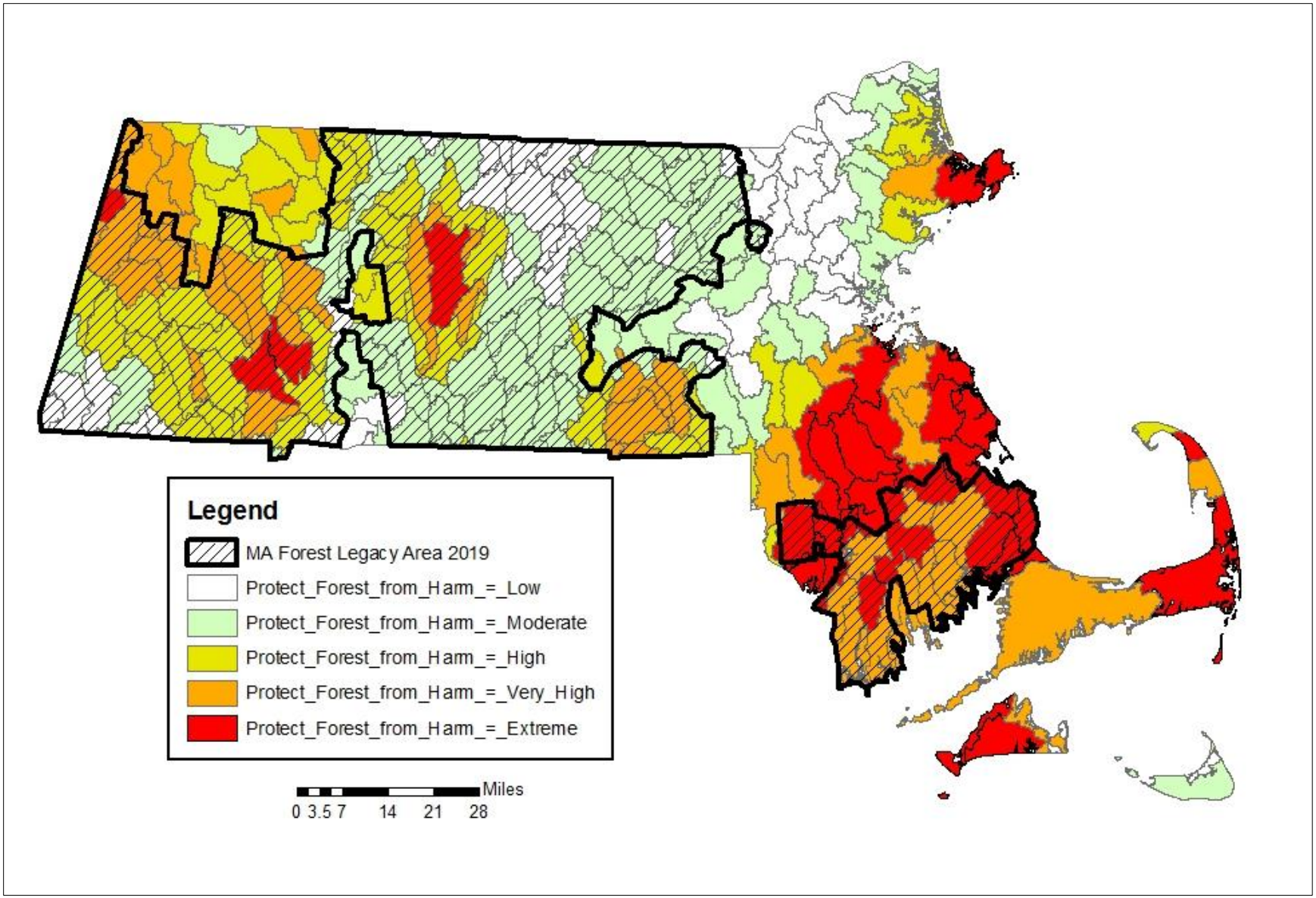

Figure 5. Protect Forests from Threats

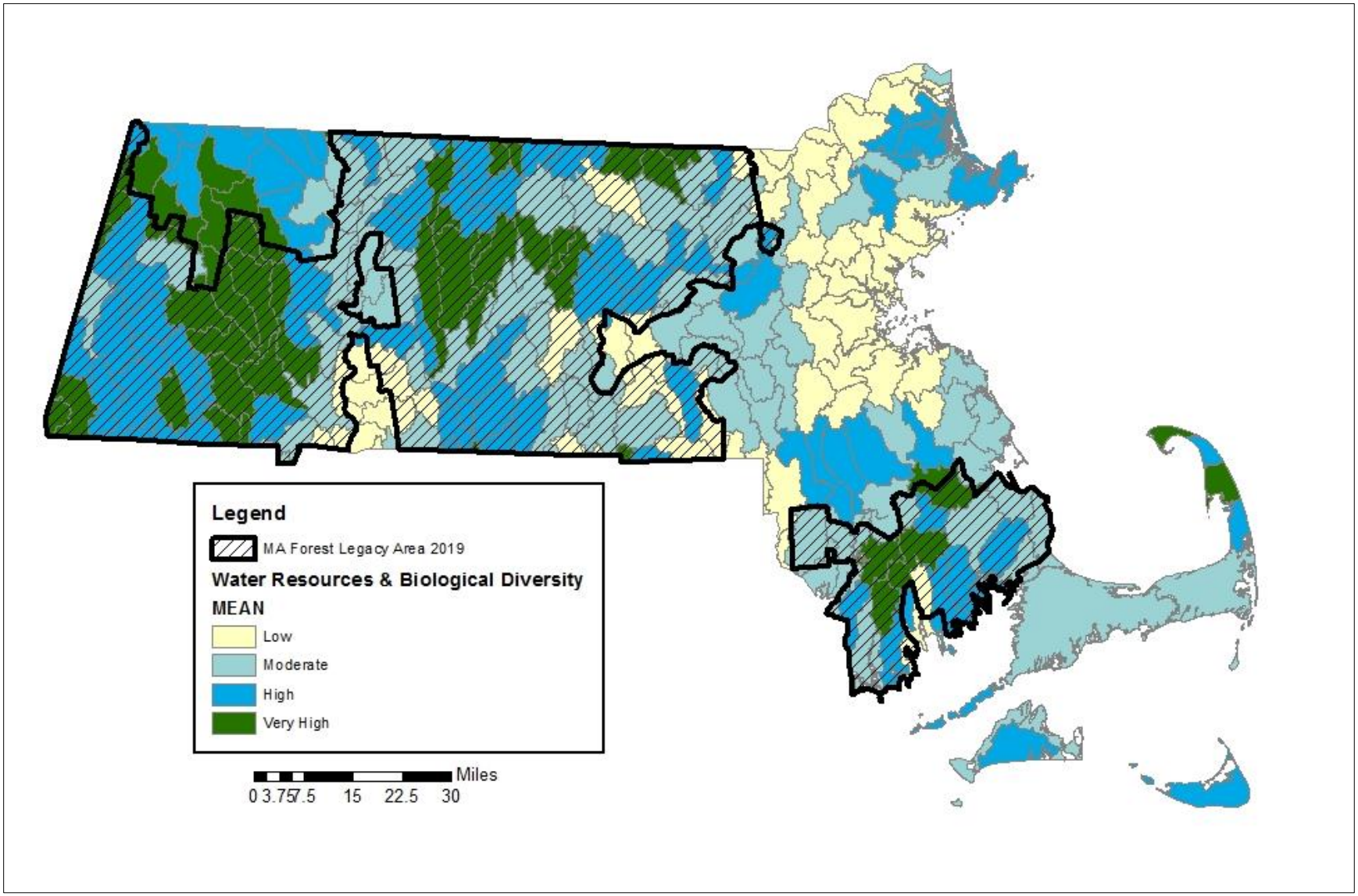

Figure 6. Water Resources and Biological Diversity

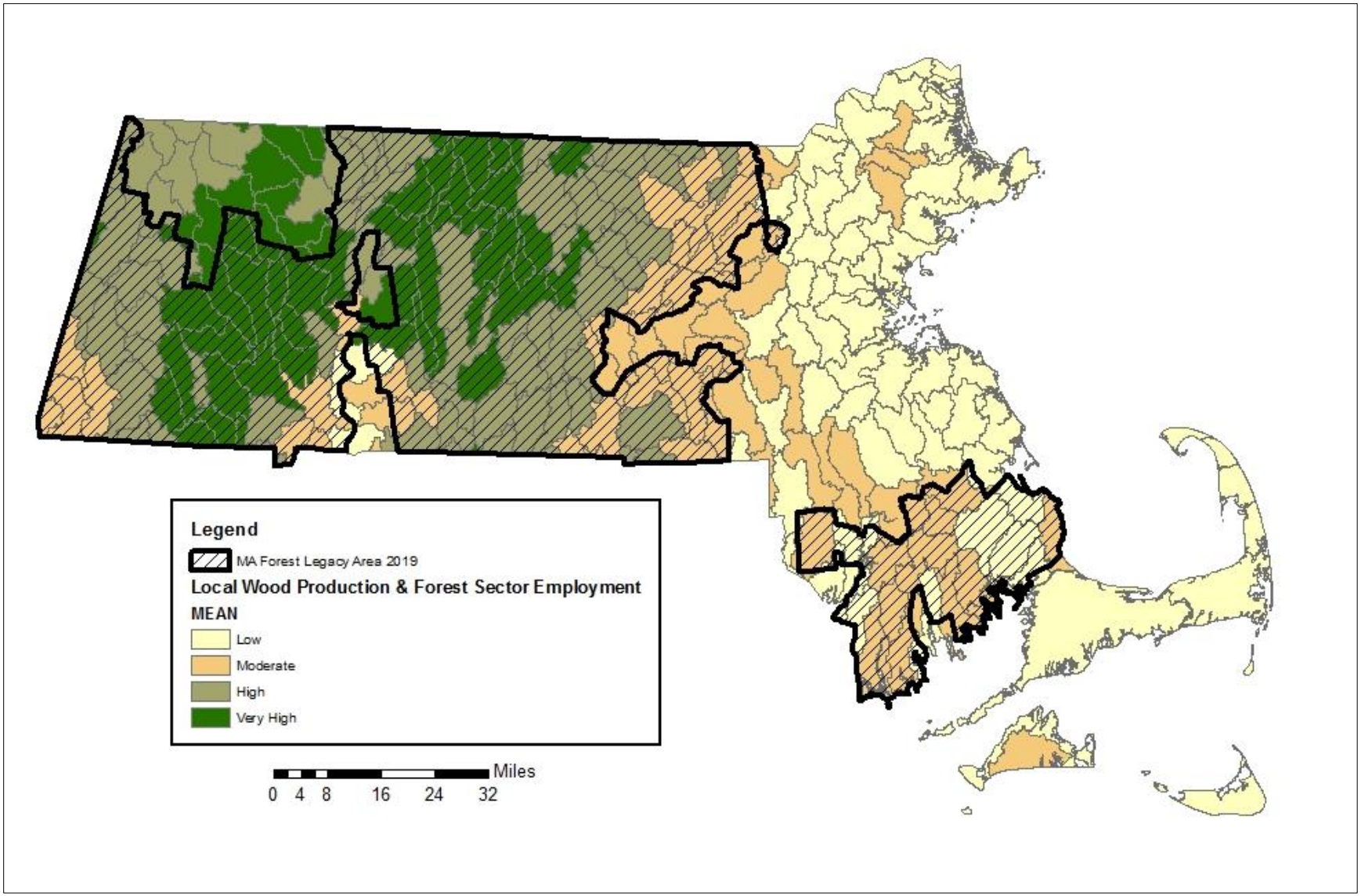

Figure 7. Local Wood Production and Forest Sector Employment

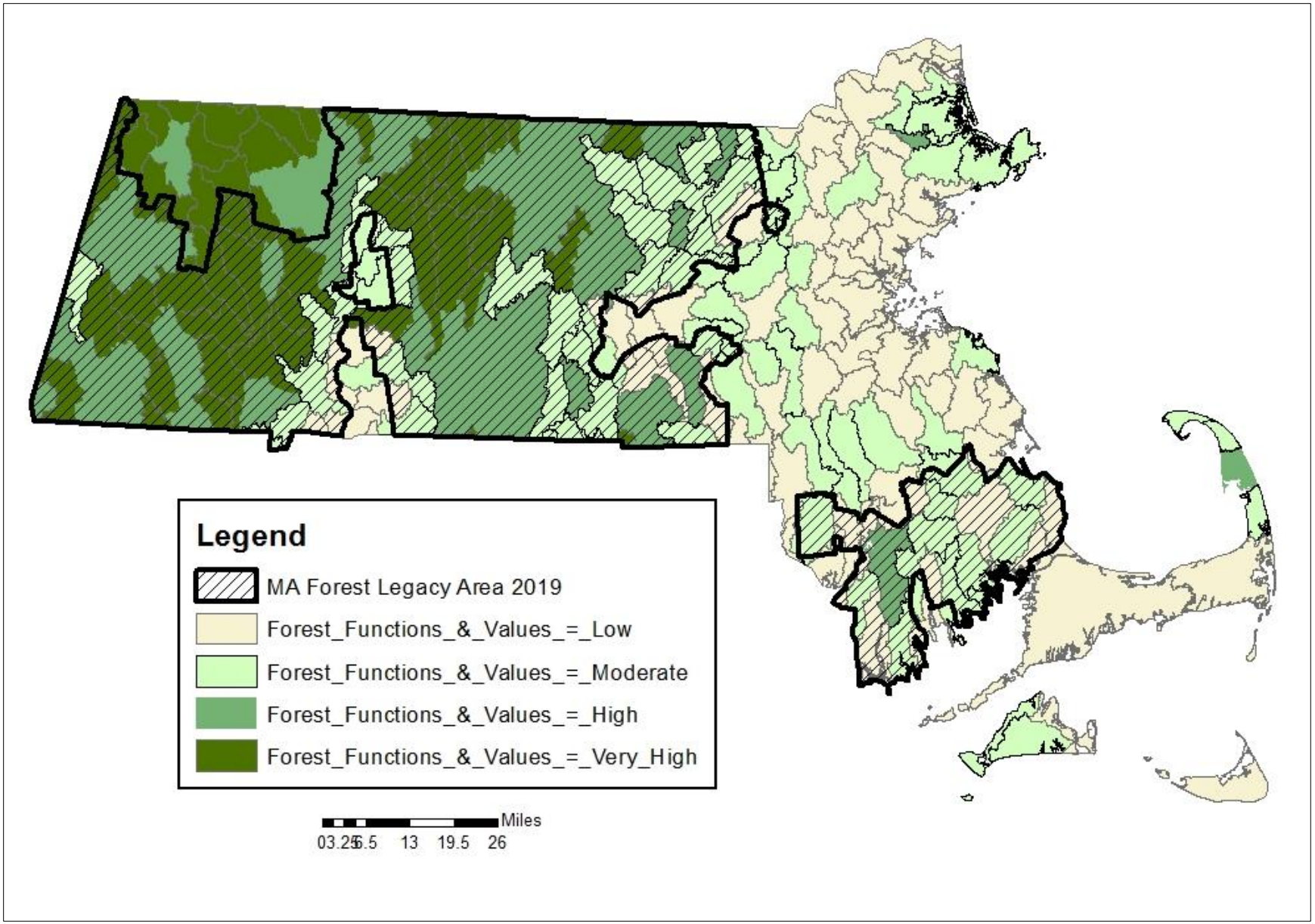

Figure 8. Forest Functions, Benefits and Values

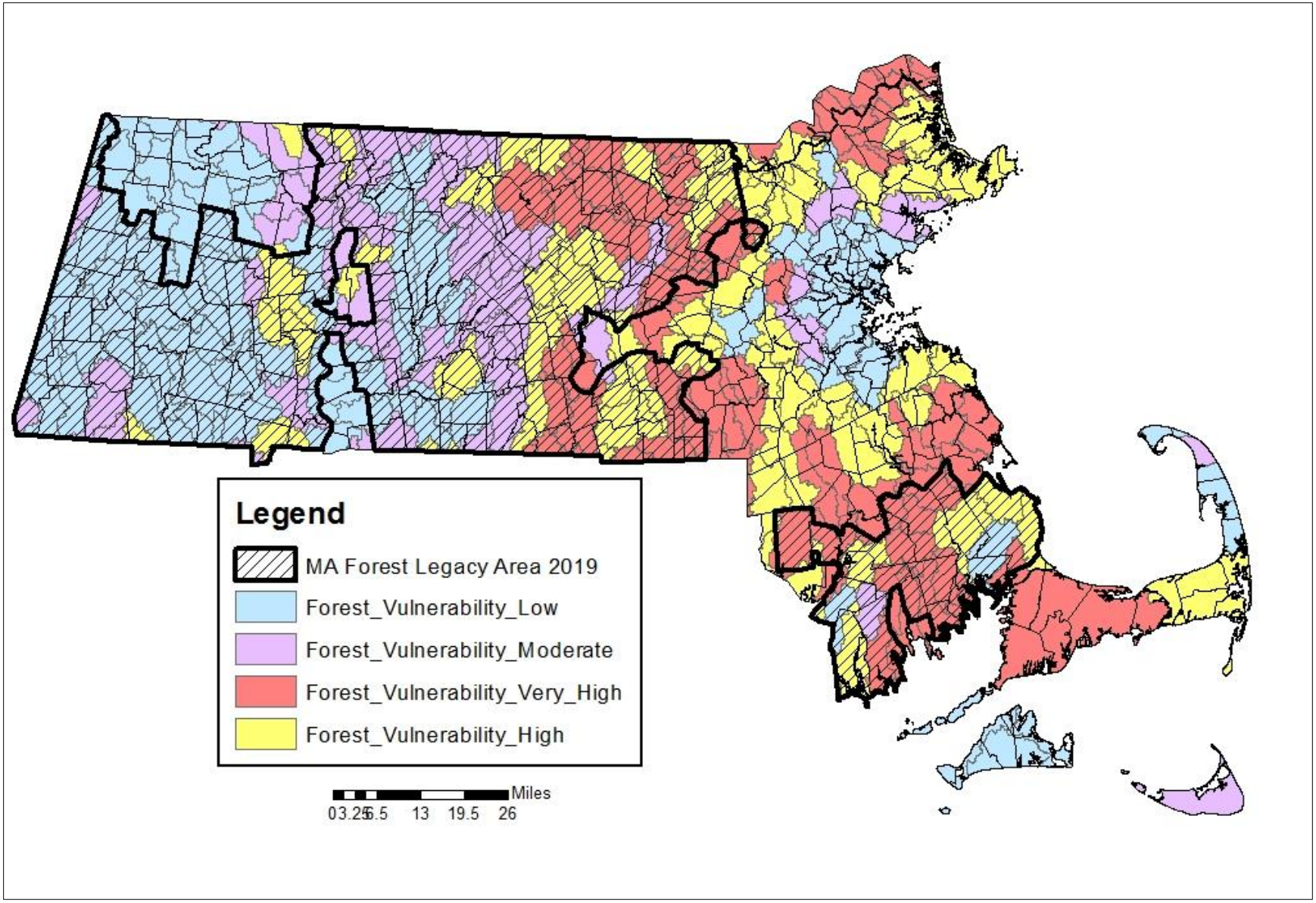

Figure 9. Forest Vulnerability

Town	Forest Acres	% Forest	Protected Open Space Acres	Core Habitat Acres	Core Habitat Protected Acres	Critical Natural Landscape Acres	CNL Protected Acres	# BioMap2 Forest Cores	# BioMap2 Landscape Blocks	Ch. 61 Acres
Acushnet*	6,685	55.4	1,144	1,373	300	4,906	676	3	2	1,205
Agawam	5,093	32.6	1,576	4,521	868	4,479	463	0	1	253
Alford	5,116	69.3	1,897	1,593	502	5,214	1,484	2	1	771
Ashburnham	19,718	75.1	6,084	4,051	1,818	11,180	4,729	0	5	7,436
Ashby	12,115	78.6	3,555	1,719	884	3,514	1,711	2	4	2,851
Athol	16,211	75.9	4,997	3,235	1,832	5,360	3,363	1	1	3,068
Ayer	2,593	42.6	755	2,597	598	539	58	1	1	442
Barre	20,784	72.8	10,809	3,469	2,528	5,245	4,525	1	3	2,850
Becket	25,383	83.0	5,082	2,143	1,334	16,678	4,183	2	5	3,041
Belchertown	23,131	65.3	7,363	5,024	2,414	8,966	4,104	2	5	6,805
Berkley*	6,532	61.9	638	2,399	239	1,067	116	0	0	346
Berlin*	5,384	63.9	2,096	603	247	755	313	1	1	720
Bernardston	11,201	74.8	2,920	2,256	1,479	7,006	2,030	2	3	4,580
Blackstone*	3,779	51.8	464	1,005	235	1,878	351	1	1	222
Blandford	29,428	86.0	16,610	1,650	774	23,564	14,340	1	3	7,549
Bolton*	8,539	66.3	2,166	2,914	1,089	547	438	0	0	650
Boxborough*	3,578	53.8	1,306	1,289	337	485	147	0	1	581
Boylston	7,567	59.8	5,930	3,367	2,824	5,077	4,244	0	2	543
Brimfield	17,789	78.8	3,862	1,567	860	6,277	2,843	0	2	8,419
Brookfield	6,750	63.6	3,339	3,380	1,660	3,018	1,564	0	2	1,069
Carlisle	5,709	57.6	3,160	3,171	1,558	913	621	1	1	692
Carver*	11,446	45.0	2,316	6,535	1,971	8,177	2,124	2	4	704
Charlton	18,146	64.4	1,304	1,648	83	1,598	108	0	1	2,518
Chester	21,448	90.2	7,831	2,870	1,534	16,342	6,912	0	2	10,328
Chesterfield	17,119	85.6	6,407	4,025	2,247	11,345	4,594	2	2	5,401
Clinton	1,402	30.1	1,483	1,208	999	996	992	0	1	58
Concord	6,431	39.0	4,879	5,403	2,339	3,738	2,053	1	1	620
Cummington	12,071	81.8	3,670	1,562	400	5,558	1,406	0	3	3,987
Dalton	10,542	748.2	7,163	5,491	4,817	7,139	5,664	2	2	1,854
Dartmouth*	22,358	56.4	9,156	10,501	4,333	20,323	7,061	4	5	2,927
Deerfield	12,372	58.0	4,083	5,377	1,452	6,686	1,896	2	2	4,525
Dighton*	9,431	66.6	400	2,725	146	5,473	176	1	3	556
Douglas*	19,096	78.0	5,707	10,427	5,098	14,124	5,662	6	3	3,491
Dudley	7,656	54.7	1,925	1,018	139	2,897	344	2	3	674
Dunstable*	6,828	63.6	1,682	5,332	715	5,006	851	1	3	2,407
East Brookfield	4,293	64.5	1,432	1,622	410	2,378	1,021	0	1	1,428

Table 3. Resource Data for MA Forest Legacy Area Towns

Town	Forest Acres	% Forest	Protected Open Space Acres	Core Habitat Acres	Core Habitat Protected Acres	Critical Natural Landscape Acres	CNL Protected Acres	# BioMap2 Forest Cores	# BioMap2 Landscape Blocks	Ch. 61 Acres
Easthampton	3,690	42.4	1,719	2,210	873	1,517	606	0	2	242
Egremont	7,379	61.1	3,185	5,095	2,527	3,546	2,146	1	3	929
Erving	7,515	81.7	3,089	820	264	4,882	1,427	0	2	361
Fall River*	12,031	48.7	10,082	9,658	6,754	14,018	988	6	1	423
Fitchburg	10,211	56.7	2,763	427	232	581	19	1	2	1,607
Freetown*	15,357	67.8	5,182	6,374	2,764	12,201	4,732	6	2	1,813
Gardner	8,828	59.9	3,706	463	205	2,153	1,391	0	2	1,188
Gill	5,558	58.6	1,722	2,492	544	6,208	1,316	1	1	2,479
Goshen	9,307	82.0	2,202	1,283	152	3,610	951	0	3	2,593
Grafton*	7,676	51.4	1,553	1,205	176	345	59	1	1	560
Granby	11,232	62.5	2,661	5,002	2,032	9,026	2,221	4	4	1,874
Granville	34,116	123.8	12,465	3,013	1,810	20,694	11,211	1	2	7,527
Great Barrington	19,721	67.3	10,511	11,174	6,279	17,057	8,448	5	4	1,730
Greenfield	6,721	47.9	1,856	1,670	300	1,587	243	0	1	1,499
Groton*	12,520	57.9	6,325	14,532	4,836	5,586	2,609	5	4	1,619
Hadley	4,525	28.7	4,533	7,270	2,539	3,727	1,328	1	1	205
Hampden	8,667	68.8	1,059	3,785	377	8,710	976	0	1	2,399
Hancock	19,874	86.9	8,666	13,951	6,963	18,716	7,885	4	3	2,252
Hardwick	19,172	73.3	9,605	6,389	4,310	10,501	7,028	1	1	2,961
Harvard*	10,297	59.3	4,445	4,876	2,304	2,834	1,401	0	1	1,295
Hatfield	4,721	43.9	881	4,581	315	2,566	79	0	1	827
Hinsdale	10,280	74.1	4,604	1,915	1,340	6,516	3,405	1	3	1,982
Holden	16,181	69.6	9,642	3,361	2,538	7,455	5,177	3	4	1,337
Holland	6,348	75.8	1,583	528	164	2,415	864	0	1	953
Holyoke	7,257	49.8	4,800	8,105	4,212	4,615	2,596	1	3	526
Hopkinton*	9,907	55.5	3,738	1,715	1,374	1,784	1,475	1	1	1,012
Hubbardston	21,474	80.0	11,169	3,869	2,793	10,155	6,390	1	5	3,017
Huntington	14,433	84.1	6,278	6,143	4,213	10,007	5,424	2	4	3,427
Lakeville*	11,433	49.5	3,188	8,593	1,624	10,435	2,072	1	4	835
Lancaster	10,651	59.5	1,849	7,822	1,456	2,684	867	1	1	400
Lanesborough	13,077	69.1	4,619	3,067	1,893	9,040	3,573	4	3	4,174
Lee	10,877	62.9	5,185	5,253	5,316	7,075	4,075	3	2	2,433
Leicester	9,946	63.1	2,071	1,051	316	618	60	0	0	1,289
Lenox	8,470	61.0	4,306	5,033	2,611	7,065	3,951	2	2	763
Leominster	9,707	51.1	5,129	5,015	3,202	6,148	3,833	3	1	1,057
Leverett	12,472	84.6	4,818	8,027	3,519	9,899	4,091	2	1	6,744

Table 3 cont. Resource Data for MA Forest Legacy Area Towns

Town	Forest Acres	% Forest	Protected Open Space Acres	Core Habitat Acres	Core Habitat Protected Acres	Critical Natural Landscape Acres	CNL Protected Acres	# BioMap2 Forest Cores	# BioMap2 Landscape Blocks	Ch. 61 Acres
Leyden	8,792	76.4	2,192	1,335	35	5,626	1,368	0	1	3,326
Littleton*	4,622	41.2	1,539	2,166	277	396	155	0	1	876
Ludlow	9,585	52.9	3,636	4,293	2,288	5,120	3,004	1	2	869
Lunenburg	9,729	54.7	2,888	3,599	1,409	3,620	1,212	4	3	1,290
Marion*	5,506	61.1	2,948	2,882	1,494	5,429	2,598	2	4	1,093
Mattapoisett*	7,507	67.6	2,826	4,793	2,143	6,629	2,464	2	3	854
Mendon*	7,259	62.9	745	2,456	371	4,509	553	1	2	856
Middleborough*	27,391	59.3	7,698	16,073	5,756	22,754	6,699	5	5	3,824
Middlefield	14,022	90.7	6,418	5,098	3,830	12,635	6,144	3	1	2,521
Millbury*	5,260	50.0	761	812	216	305	21	1	1	59
Millville*	1,950	61.4	140	26	0	576	0	0	1	237
Monson	21,331	74.5	3,843	6,624	839	11,843	2,174	0	3	5,587
Montague	14,084	70.0	7,375	8,289	3,859	10,365	5,390	2	2	3,326
Monterey	14,351	81.9	7,585	2,010	827	11,675	6,109	1	3	2,370
Montgomery	8,419	87.4	3,404	5,839	2,911	3,223	1,372	1	1	1,079
Mount Washington	13,432	93.8	10,593	12,564	10,238	13,040	10,390	2	1	299
New Braintree	8,415	62.8	2,139	1,242	12	1,149	165	0	1	2,114
New Marlborough	23,586	76.9	8,475	6,088	2,805	20,649	6,578	2	4	4,135
New Salem	26,075	69.4	31,458	14,850	13,722	28,056	26,472	2	2	2,016
North Brookfield	8,335	59.3	2,013	1,913	362	251	94	0	0	1,325
Northampton	11,237	49.2	4,930	6,479	1,902	3,653	1,370	1	1	2,332
Northborough	5,580	46.5	2,368	1,152	573	903	582	1	1	613
Northbridge*	6,361	55.0	1,291	1,035	263	770	436	0	1	345
Northfield	16,060	71.0	4,043	7,573	2,656	12,999	3,431	3	3	3,928
Oakham	10,832	79.5	4,138	1,492	706	1,329	360	0	2	1,637
Orange	16,723	72.6	6,871	4,941	1,868	8,434	4,093	2	4	9,147
Otis	19,412	79.7	6,283	5,115	1,614	15,535	4,833	1	5	2,072
Oxford*	1,460	42.2	1,299	2,489	784	3,074	658	3	3	2,459
Palmer	13,153	64.2	2,450	2,514	681	1,617	263	0	1	2,885
Paxton	6,405	64.7	3,026	0	0	677	376	0	2	1,391
Pelham	14,591	86.0	10,178	3,817	1,759	13,026	8,377	1	3	3,580
Pepperell	7,913	53.3	2,492	5,516	1,200	2,804	1,101	2	3	909
Petersham	31,110	71.3	29,082	18,860	16,387	30,739	25,386	1	2	6,560
Phillipston	13,329	84.5	5,152	2,062	1,206	6,904	3,546	1	2	2,844
Pittsfield	10,969	40.4	5,054	6,475	2,679	7,426	3,325	3	3	1,426
Plainfield	11,491	84.3	4,011	1,646	591	3,248	1,595	0	3	3,803

Table 3 cont. Resource Data for MA Forest Legacy Area Towns

Town	Forest Acres	% Forest	Protected Open Space Acres	Core Habitat Acres	Core Habitat Protected Acres	Critical Natural Landscape Acres	CNL Protected Acres	# BioMap2 Forest Cores	# BioMap2 Landscape Blocks	Ch. 61 Acres
Plymouth*	40,844	62.3	17,110	30,785	14,062	30,839	14,233	5	5	9,054
Plympton*	5,644	58.5	230	3,170	188	7,424	222	0	1	973
Princeton	18,652	81.3	9,938	3,435	2,102	10,944	6,063	4	6	3,914
Rehoboth*	19,123	63.1	1,176	7,848	508	8,901	590	3	5	1,654
Richmond	7,642	62.7	993	1,830	218	3,759	401	1	2	1,993
Rochester*	13,965	60.4	4,475	8,519	2,449	15,676	3,509	6	1	2,215
Royalston	23,614	86.7	11,005	5,228	2,645	23,168	10,201	2	3	9,331
Russell	10,123	88.4	3,436	1,327	869	4,764	2,206	0	2	3,569
Rutland	17,514	75.6	9,635	1,946	1,583	6,596	5,056	0	5	2,501
Sandisfield	30,124	88.9	11,169	3,281	1,435	29,488	10,994	1	5	7,389
Sheffield	18,752	60.3	5,831	17,092	6,162	19,587	6,850	3	3	6,747
Shirley	6,494	63.9	2,717	3,697	1,715	1,162	881	2	1	977
Shrewsbury	5,106	36.7	796	218	1	188	1	0	0	281
Shutesbury	15,664	90.3	8,246	3,993	3,018	13,904	7,223	3	3	5,829
South Hadley	5,688	48.1	2,952	4,651	2,280	4,113	2,085	1	2	215
Southampton	12,841	69.3	3,761	4,346	1,534	10,737	3,260	1	2	3,353
Southbridge	8,901	67.7	952	4,175	788	4,170	705	2	4	2,021
Southwick	10,708	52.9	1,823	2,101	440	2,108	106	0	2	1,698
Spencer	13,550	62.3	4,457	702	192	833	332	0	1	1,504
Sterling	11,332	56.0	6,932	3,689	2,837	5,758	4,037	4	4	2,116
Stockbridge	9,499	62.7	3,281	6,060	2,000	7,324	2,327	4	5	2,121
Stow*	6,067	52.6	3,097	876	830	1,318	1,162	0	1	569
Sturbridge	17,925	71.9	5,535	7,345	3,590	5,055	2,594	1	3	4,058
Sutton*	13,605	62.4	2,877	2,922	942	5,351	1,479	2	2	1,733
Templeton	14,402	69.4	4,435	1,988	902	1,924	807	0	2	1,373
Tolland	18,491	88.1	8,402	3,072	2,413	19,336	8,252	1	2	1,036
Townsend	16,052	75.9	7,027	9,838	5,443	11,582	5,830	9	5	2,137
Tyngsborough*	5,590	48.3	1,293	2,500	381	1,595	253	1	3	1,034
Tyringham	9,713	80.5	4,157	5,359	2,039	10,891	3,913	2	1	3,056
Upton*	9,841	70.5	2,830	2,552	527	3,328	887	1	2	527
Uxbridge*	10,909	56.9	1,263	2,055	183	2,528	292	1	4	2,614
Wales	8,738	85.4	4,393	1,291	978	6,136	3,587	0	3	923
Ware	15,789	61.7	9,277	6,294	4,677	7,892	6,802	1	2	2,587
Wareham*	11,597	48.9	2,759	6,238	1,284	7,246	1,408	1	3	821
Warren	13,212	74.7	783	1,291	41	938	168	0	1	4,369
Warwick	21,530	89.3	13,825	8,625	6,145	18,791	11,689	4	3	6,986

Table 3 cont. Resource Data for MA Forest Legacy Area Towns

Town	Forest Acres	% Forest	Protected Open Space Acres	Core Habitat Acres	Core Habitat Protected Acres	Critical Natural Landscape Acres	CNL Protected Acres	# BioMap2 Forest Cores	# BioMap2 Landscape Blocks	Ch. 61 Acres
Washington	22,390	90.2	16,173	8,415	6,943	20,895	16,063	3	2	1,219
Webster*	4,115	44.1	1,034	2,138	870	2,123	855	2	2	137
Wendell	18,727	90.8	11,668	4,378	2,577	11,270	7,005	3	2	3,090
West Boylston	4,572	51.7	3,621	1,287	1,058	1,401	1,171	1	2	417
West Brookfield	8,865	65.6	2,988	1,458	550	2,427	740	0	1	2,563
West Springfield	4,137	36.9	1,499	1,905	780	1,365	478	1	1	169
Westford*	9,562	47.7	3,199	5,643	1,311	934	263	1	1	1,113
Westminster	16,657	69.8	5,635	1,448	843	4,334	2,225	1	3	2,329
Westport*	18,470	55.8	5,315	4,642	1,375	12,028	2,874	2	6	2,567
Wilbraham	7,938	55.7	2,087	3,603	834	3,188	737	0	1	565
Winchendon	21,127	74.9	6,945	6,695	2,787	8,678	3,902	0	4	7,603
Worcester	5,230	21.3	2,022	1,481	552	16	0	0	0	121

Table 3 cont. Resource Data for MA Forest Legacy Area Towns

2. MA Forest Legacy Area Boundary Description

The boundary description of the Massachusetts Forest Legacy Area follows:

A. Beginning at the intersection of the Massachusetts/Connecticut state line at the town boundary between the Towns of Agawam and Longmeadow;

B. Thence westerly along the Massachusetts/Connecticut state line, along the southern border of the towns of Agawam, Southwick, Granville, Tolland, Sandisfield, New Marlborough, Sheffield, and Mount Washington, a distance of 40.3 miles;

C. Thence northerly along the Massachusetts/New York state line, along the western border of the towns of Mount Washington, Egremont, Alford, West Stockbridge, Richmond, Hancock, and Williamstown, a distance of 49.8 miles;

D. Thence easterly along the Massachusetts/Vermont state line along the northern boundaries of the towns of Williamstown, Clarksburg, Florida, Monroe, Rowe, Heath, Colrain, Leyden, Bernardston and Northfield, then along the Massachusetts/New Hampshire state line along the northern boundaries of the towns of Northfield, Warwick, Royalston, Winchendon, Ashburnham, Ashby, Townsend, Pepperell and Dunstable to the intersection of Hollis Street, a distance of 87.7 miles; Thence southerly along Hollis Street to the intersection with Route 113, a distance of 1.9 miles;

E. Thence westerly along Route 113 to Unkety Brook, a distance of 0.32 miles;

F. Thence southerly along Unkety Brook, to Groton Street, a distance of 1.0 miles,

G. Thence southerly along Groton Street to its intersection with Chicopee Row, at the town line of Dunstable and Groton, a distance of 1.2 miles;

H. Thence southerly along Chicopee Row to the intersection of Hollis Street, a distance of 4.0 miles;

I. Thence southerly along Hollis Street to Groton Center and the intersection of Route 119, a distance of 0.5 miles;

J. Thence southerly along Route 119 to Interstate 495 in Littleton, a distance of 11.0 miles;

K. Thence southerly along Interstate 495, to Interstate 290 in Marlborough, a distance of 5.6 miles;

L. Thence westerly along Interstate 290 to exit 21 in Worcester, a distance of 10.7 miles;

M. Thence northerly along Plantation Street to the intersection with Northeast Cutoff (route 70 intersection), a distance of 0.71 miles;

N. Thence northerly along Northeast Cutoff to East Mountain Street, a distance of 0.75 miles;

O. Thence westerly along East Mountain Street to the intersection of West Boylston Street (Route 12) and West Mountain Street, a distance of 1.49 miles;

P. Thence westerly along West Mountain Street to intersection with Doyle Road at the Worcester / Holden town line, a distance of 0.81 miles;

Q. Thence westerly along Doyle Road to Shrewsbury Street, a distance of 1.2 miles;

R. Thence westerly along Shrewsbury Street to Route 122A (Main Street), a distance of 0.9 miles;

S. Thence westerly along Route 122A to Salisbury Street, a distance of 0.8 miles;

T. Thence southerly along Salisbury Street to Fisher Road, a distance of 3.4 miles;

U. Thence southerly along Fisher Road / Stonehouse Hill Road to Reservoir Street, a distance of 1.8 miles;

V. Thence southerly along Reservoir Street to the intersection with Oleane Street at the Holden / Worcester town line, a distance of 0.2 miles;

W. Thence southerly along Oleane Street to the intersection with Cataract Street, a distance of 0.06 miles;

X. Thence southerly along Cataract Street to the intersection with Mower Street, a distance of 0.85 miles;

Y. Thence westerly along Mower Street to the intersection with Pleasant Street (Route 122), a distance of 0.23 miles;

Z. Thence westerly along Route 122 to Airport Drive, a distance of 0.37 miles;

AA. Thence southerly along Airport Drive, to Goddard Memorial Drive, a distance of 0.9 miles;

BB. Thence southerly along Goddard Memorial Drive to Route 9, a distance of 1.9 miles;

CC. Thence westerly along Route 9 to the Worcester/Leicester town line, a distance of 0.5 miles;

DD. Thence southerly along the boundary of the towns of Leicester, Charlton and Oxford to the Oxford/Millbury town line, a distance of 7.7 miles;

EE. Thence easterly along the boundaries of the towns of Millbury, Grafton, Upton and Hopkinton to the boundaries of the towns of Hopkinton, Ashland and Holliston, a distance of 27.1 miles;

FF. Thence southerly along the boundaries of the towns of Hopkinton, Upton, Mendon and Blackstone to the boundary of the state of Rhode Island, a distance of 21.8 miles;

GG. Thence westerly along the boundaries of the towns of Blackstone, Millville, Uxbridge and Douglas to the boundary of the state of Connecticut, a distance of 15.5 miles;

HH. Thence northerly along the boundary between the town of Douglas and the state of Connecticut, a distance of 1.1 miles;

II. Thence westerly along the boundaries of the towns of Douglas, Webster, Dudley, Southbridge, Sturbridge, Holland, Wales, Monson and Hampden to the boundary of the town of East Longmeadow, a distance of 33.7 miles;

JJ. Thence northerly along the western border of the towns of Hampden, Wilbraham, Ludlow and Granby to Rte. 116 at the boundary of the towns of Granby and South Hadley (north of the intersection of Amherst Rd. and Burnett St.) a distance of 20.2 miles;

KK. Thence southwesterly along Route 116 (Amherst Rd) to the intersection of Pearl St in South Hadley, a distance of 0.01 miles;

LL. Thence westerly along Pearl St to Route 47, a distance of 1.8 miles;

MM. Thence northerly along Route 47 to the boundary between the towns of Hadley and South Hadley, a distance of 0.7 miles;

NN. Thence westerly along the southern boundary of the town of Hadley to the center of the Connecticut River, the boundary of the city of Holyoke, a distance of 0.4 miles;

OO. Thence southerly along the center of the Connecticut River, the eastern boundary of Holyoke, West Springfield, and Agawam to the Connecticut/Massachusetts state line at the point of beginning, a distance of 21.5 miles

Excluding the towns of Amherst and Sunderland and portions of the town of Hadley as described as follows:

A. Beginning at the boundary of the towns of Sunderland, Montague and Deerfield in the center of the Connecticut River, thence southerly along the eastern boundary of Deerfield, Whately, Hatfield, and Northampton in the center of the Connecticut River to the confluence of the Fort River and the Connecticut River, a distance of 18.0 miles;

B. Thence easterly and northerly upstream along the Fort River to a point where it crosses Bay Rd in the town of Hadley, a distance of 0.8 miles;

C. Thence southerly along Bay Rd to Lawrence Plain Rd, a distance of 0.1 miles;

D. Thence southerly along Lawrence Plain Rd to Churma Road, a distance of 1.1 miles;

E. Thence easterly along Churma Rd to its end at a cul-de-sac, a distance of 1.3 miles;

F. Thence northerly along a line from the cul-de-sac to the intersection of South Maple St and Bay Rd, a distance of 0.4 miles;

G. Thence easterly along Bay Rd to the Hadley / Amherst town line, a distance of 0.15 miles;

H. Thence southerly along the Hadley / Amherst town line to the intersection of the Hadley / Amherst / South Hadley town line, a distance of 1.11 miles;

I. Thence southeasterly along the Amherst / South Hadley town line to the intersection with Route 116 (Amherst St) at the Amherst / South Hadley / Granby town line, a distance of 0.43 miles;

J. Thence southwesterly along Route 116 (Amherst St) to the intersection with the South Hadley / Granby town line, a distance of 0.24 miles;

K. Thence southwesterly along South Hadley / Granby town line (a portion of which follows along Route 116) to the Granby / South Hadley town line corner near the intersection at Route 116 (Amherst Rd) and Pearl St., a distance of 2.09 miles;

L. Thence easterly along the northern boundary of the town of Granby to the town of Belchertown, a distance of 3.8 miles;

M. Thence northerly along the western boundaries of the towns of Belchertown, Pelham and Shutesbury to the town of Leverett, a distance of 9.0 miles;

N. Thence westerly along the southern boundary of the town of Leverett to the town of Sunderland, a distance of 2.1 miles;

O. Thence northerly along the western boundary of the town of Leverett to the town of Montague, a distance of 5.7 miles;

P. Thence westerly along the southern boundary of the town of Montague, a distance of 1.8 miles, to the point of beginning.

And including, in southeastern Massachusetts, the following area:

A. Beginning at the northwest corner of the town of Rehoboth where it meets the towns of Seekonk and Attleboro, thence easterly along the boundaries of the towns of Rehoboth, Dighton, Berkley, Lakeville, Middleborough, Plympton, Carver and Plymouth to the Atlantic Ocean at the boundary of the towns of Plymouth and Kingston, a distance of 53.2 miles;

B. Thence southerly along the boundary of the town of Plymouth to the boundary of the town of Bourne, a distance of 19.9 miles;

C. Thence westerly along the boundaries of the towns of Plymouth, Wareham, Marion and Mattapoisett to the boundary of the town of Fairhaven, a distance of 43.5 miles;

D. Thence northerly along the boundary of the town of Mattapoisett to the town of Acushnet, a distance of 3.7 miles;

E. Thence westerly along the boundary of the town of Acushnet to the Acushnet River, a distance of 3.2 miles;

F. Thence northerly along the boundary of the town of Acushnet to the boundary of the town of Freetown and the city of New Bedford, a distance of 6.1 miles;

G. Thence westerly along the boundary of the town of Freetown to the boundary of the town of Dartmouth and the city of New Bedford, a distance of 1.4 miles;

H. Thence southerly along the boundary of the town of Dartmouth to the boundary of the town of Dartmouth and the city of New Bedford on Buzzard's Bay, a distance of 9.6 miles;

I. Thence westerly and northerly along the coast and the boundaries of the towns of Dartmouth and Westport to the boundary of the city of Fall River, a distance of 32.2 miles;

J. Thence northerly and westerly along the boundary of the city of Fall River to boundary of the states of Massachusetts and Rhode Island in Mount Hope Bay, a distance of 7.7 miles;

K. Thence northerly along the boundary of the city of Fall River and the towns of Freetown and Dighton, and the Taunton River to the boundary of the town of Dighton, a distance of 10.8 miles;

L. Thence westerly, northerly and westerly along the boundary of the town of Dighton to the town of Rehoboth, a distance of 6.3 miles;

M. Thence southerly, westerly and northerly along the boundary of the town of Rehoboth to the point of beginning, a distance of 16.7 miles.

E. Project Evaluation and Prioritization Process

Each year, the Massachusetts Forest Legacy Committee will solicit project applications from the land conservation community. Projects applications will be accepted until the second Monday in September. The Massachusetts Forest Legacy Program Coordinator will collect the applications and distribute them to the Massachusetts Forest Legacy Committee. Committee members will be given at least one week to read each project and score it based on the National Scoring Criteria. A scoring sheet similar to the example below (Figure 10) will be distributed to Committee members for this process.

Project proponents will be invited to attend a Forest Legacy Committee meeting held in late September where they will be asked to present their project to Committee members and answer any questions they may have. After the presentations are complete a vote will be held for each

project, with a vote in favor indicating the project is ready to be submitted to the Forest Service for consideration for funding. A simple majority vote will move a project forward. After voting, projects will be ranked by the Committee. In the case that the number of projects submitted exceeds the number of projects the state is allowed to submit for federal consideration, or the total FLP grant request for all submitted projects exceeds the federally allowed maximum, the highest ranked projects will be submitted to the Forest Service.

Project Name	**National Criteria**				**Ranking**
	Importance (0-30)	**Threatened (0-20)**	**Strategic (0-30)**	**TOTAL POINTS**	
Project A					
Project B					
Project C					
Project D					

Figure 10. Example Massachusetts Forest Legacy Project Scoring Sheet

V. PUBLIC INVOLVEMENT

The responsibility for Forest Legacy Program implementation in Massachusetts is through the State Forest Stewardship Coordinating Committee. As of September 2019, the Forest Legacy Committee subcommittee was rejoined with the State Forest Stewardship Coordinating Committee. The committee was designed to provide land conservation acquisition expertise. Consultation with this committee, which broadly represents the many facets of the Massachusetts forestry community, constituted the initial phase of public participation when the program was first implemented.

The committee is tasked with developing the assessment which would make the case for the Forest Legacy Program in Massachusetts, representing its various constituencies. Further, the committee took nominations for Forest Legacy Areas and chose those areas to be eligible for initial funding.

All documents submitted to the Forest Legacy Committee supporting Forest Legacy Area nominations are public records and available through the Massachusetts Department of Conservation and Recreation, Bureau of Forest Fire Control & Forestry, Forest Legacy Program.

When a new Forest Legacy Area is being considered for recommendation for addition to the Massachusetts Forest Legacy Program public notification will entail:

- Review, comment and approval by the State Forest Stewardship Coordinating Committee which members diversely representing the forestry community.
- Notification and request for response of regional land trusts, community land trusts, watershed associations, and units of state and local government.

In regards to the proposed 2019 expansion of the Massachusetts Forest Legacy Area, letters were sent to 37 lands trusts and conservation organizations in the affected areas soliciting their comments. Responses are included in Appendix D.

VI. SUMMARY

The Forest Legacy Program will continue to enhance an existing network of governmental and private organizations working together, employing sophisticated techniques to protect the most special and most threatened resources in Massachusetts.

The Massachusetts Forest Legacy Committee believes this document clearly shows the vital need for the Forest Legacy Program in the Commonwealth and substantiates the ability and readiness of that committee to effectively deliver a successful program in a timely manner.

Authorization for conducting the Forest Legacy Program in Massachusetts was affected by Governor William F. Weld in a letter dated October 3, 1991 and is contained in Appendix B. Additionally, the State Stewardship Coordinating Committee minutes of August 27, 1991, authorizing the establishment of a Forest Legacy Program Subcommittee, are in Appendix C.

A summary of the historical Massachusetts Forest Legacy Areas can be found in Appendix A. Full copies of the AONs are on file and available by request from the Massachusetts Department of Conservation and Recreation, Bureau of Forest Fire Control & Forestry.

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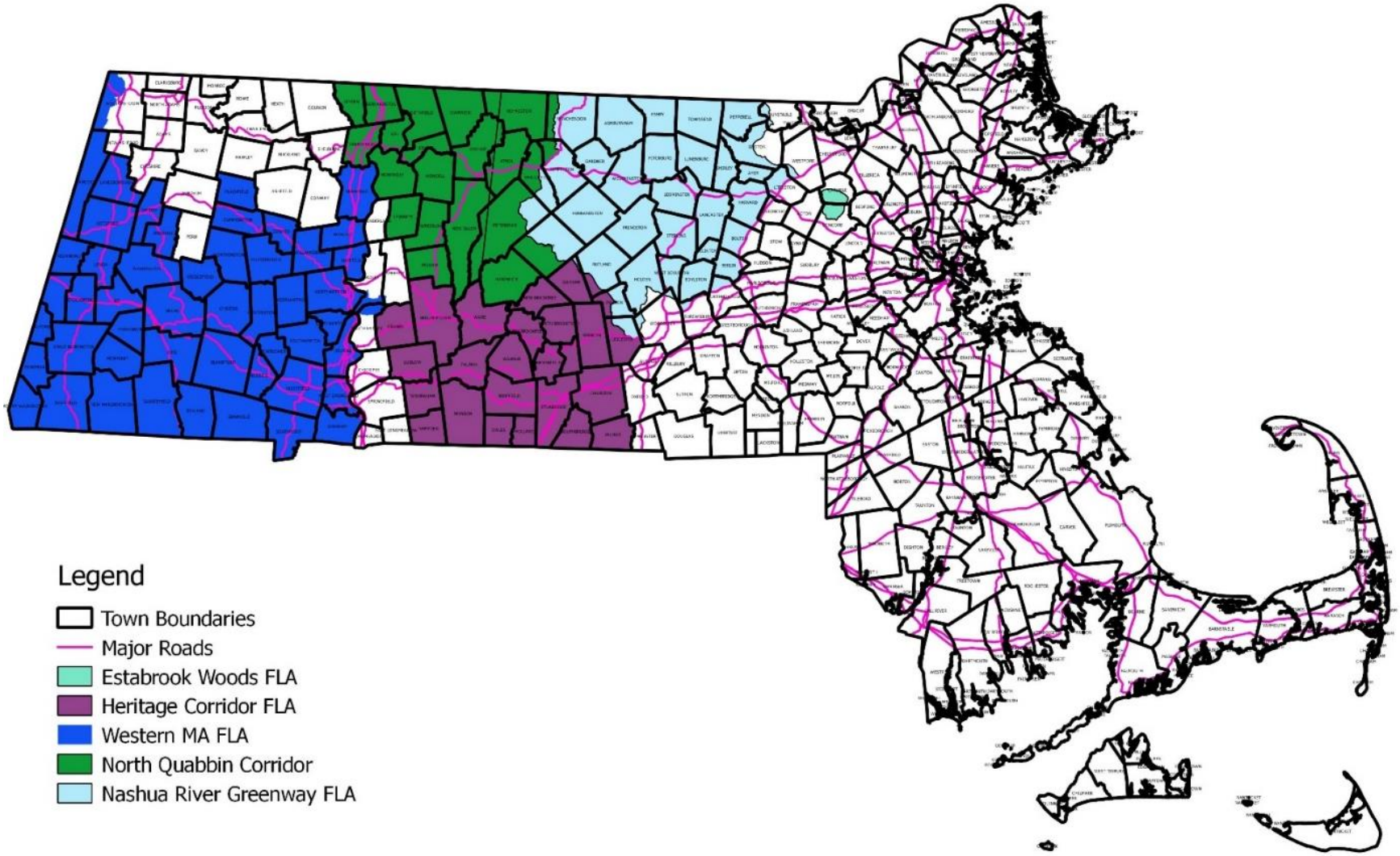
VIII. APPENDICIES

APPENDIX A.

Massachusetts Forest Legacy Area History

Maps and Descriptions



Massachusetts Forest Legacy Area Map, as of Western Mass Forest Legacy Area Amendment 2016

Estabrook Woods Forest Legacy Area

History

The Estabrook Woods Forest Legacy Area was established on August 5, 1993. This 2,000 acre forested area was a green island amidst a sea of development 20 miles outside of Boston. The area supports a diversity of rare and endangered plants and animals identified by the Massachusetts Natural Heritage Program and is entirely within the Concord River watershed.

Boundary Description

A. Beginning In the center of the town of Carlisle, Massachusetts, at the Intersection of Lowell Street and Route 225;

B. Thence, southeasterly along Route 225 to its junction with River Road, a distance of 1.6 miles;

C. Thence, southwesterly along River Road, crossing the town line between the towns of Carlisle and Concord and into the town of Concord, at which point it becomes Monument Street, to its junction with Liberty Street, a distance of 3.6 miles;

D. Thence, southwesterly along Liberty Street to its junction with Barnes Hill Road, a distance of 0.2 miles;

E. Thence, northwesterly along Barnes Hill Road to its junction with Barret's Mill Road .and - Lowell Street, a distance of 0.6 miles;

F. Thence, westerly along Barret's Mill Road to its junction With Strawberry HDI Road, a distance of 1.1 miles;

G. Thence, northwesterly along Strawberry Hill Road to its Intersection with the town line between the towns of Acton and Concord, a distance of 1.6 miles;

H. Thence, northeasterly along the town line to a comer and its intersection with Pope Road, a distance of 1.0 miles;

I. Thence, northerly along Pope Road to its intersection with West Street in the town of Carlisle, a distance of 0.1 miles;

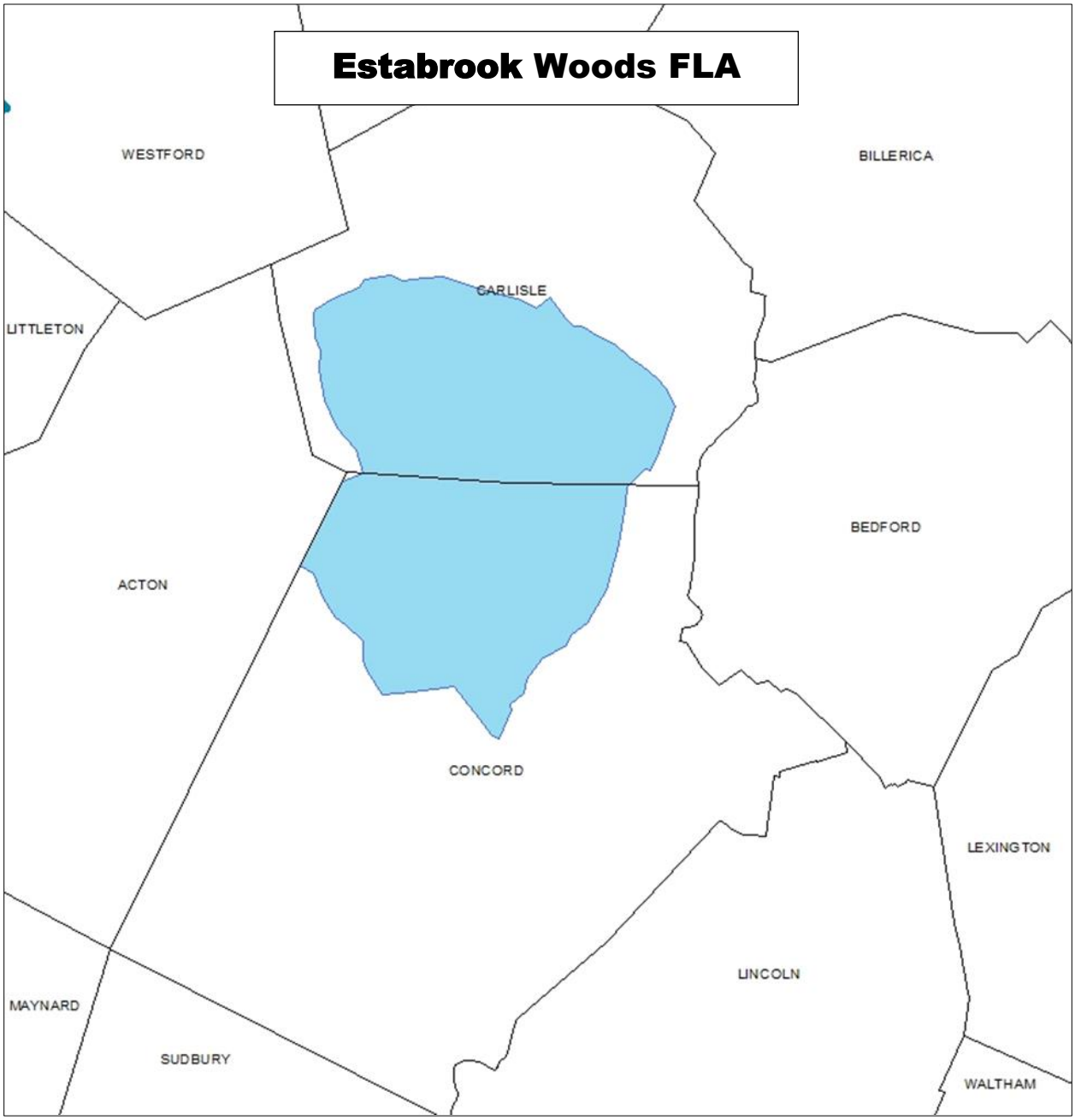
J. Thence northerly along West Street to its intersection with Acton Street, a distance. of 1.6 miles;

K. Thence, easterly along Acton Street to its intersection with Route 225, a distance of 0.8 miles;

L. Thence easterly along Route 225 to Carlisle center, its junction with Lowell Street and the point of beginning, a distance of 1.4 miles...

Towns Within or Partially Within the Estabrook Woods Forest Legacy Area

Carlisle	Concord



Estabrook Woods Forest Legacy Area Map

Heritage Corridor Forest Legacy Area

History

The Heritage Corridor Forest Legacy Areas was established on October 25, 2013. This area is ripe for becoming a new bedroom community for the cities of Worcester, Springfield, Hartford, and Boston. The FLA is 70% forested and contains 473 miles of major rivers and streams.

Boundary Description

A. Beginning at the intersection of the Massachusetts / Connecticut state line at the town boundary between the Towns of Dudley and Webster;

B. Thence, westerly along the Massachusetts / Connecticut state line, along the southern border of the towns of Dudley, Southbridge, Sturbridge, Holland, Wales, Monson and Hampden, a distance of 29.6 miles;

C. Thence, northerly along the western border of the towns of Hampden, Wilbraham, Ludlow and Granby to the northwest corner of the Town of Granby (north of the intersection of Amherst Rd. and Burnett St.), a distance of 20.22 miles;

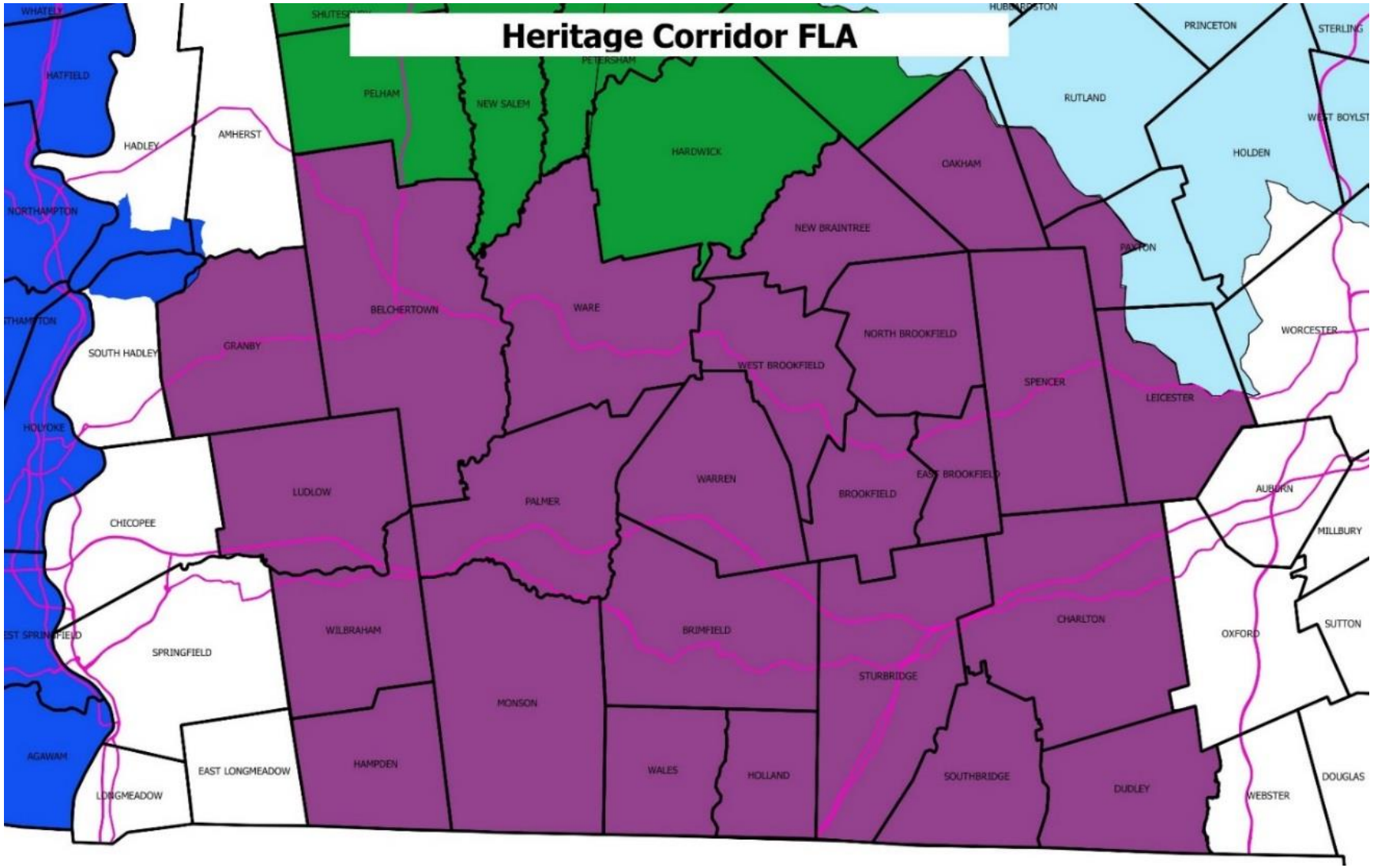
D. Thence, easterly along the northern border of the towns of Granby, Belchertown, Ware, New Braintree and Oakham to the point of intersection with the Nashua River Greenway FLA, a distance of 68.3 miles, which also runs along the southern boundary of the North Quabbin Corridor FLA;

E. Thence, southerly along the southern boundary of the Nashua River Watershed through the towns of Oakham, Rutland, Paxton and Leicester, a distance of 32.9 miles;

F. Thence, easterly and southerly along the boundary of the towns of Leicester, Charlton and Dudley to the point of beginning, a distance of 19.8 miles…

Towns Within or Partially Within the Heritage Corridor Forest Legacy Area

Belchertown	Hampden	Oakham	Wales
Brimfield	Holland	Palmer	Ware
Brookfield	Leicester	Paxton	Warren
Charlton	Ludlow	Rutland	West Brookfield
Dudley	Monson	Southbridge	Wilbraham
East Brookfield	New Braintree	Spencer	
Granby	North Brookfield	Sturbridge	



Heritage Corridor Forest Legacy Area Map

Nashua River Greenway Forest Legacy Area

History

The Nashua River Greenway was established on August 5, 1993. On June 1, 2001, an amendment to the Assessment of Need was approved which expanded the area significantly. Two-thirds of Massachusetts' population receives their drinking water from the central part of the state and this FLA's goal was to increase water supply area management and protection.

Boundary Description

A. Beginning at the intersection of the New Hampshire / Massachusetts state line and Tarbell Brook, in the town of Winchendon (the northeastern corner of the North Quabbin Corridor Forest Legacy Area);

B. Thence, easterly along the New Hampshire / Massachusetts state line, along the northern border of the towns of Winchendon, Ashburnham, Ashby, Townsend, Pepperell and Dunstable to the intersection of Hollis Street, a distance of 27.9 miles;

C. Thence, southerly along Hollis Street to the intersection with Route 113, a distance of 1.9 miles;

D. Thence, westerly along Route 113 to Unkety Brook, a distance of 0.32 miles;

E. Thence, southerly along Unkety Brook to Groton Street, a distance of 1.0 miles;

F. Thence, southerly along Groton Street to its intersection with Chicopee Row, at the town line of Dunstable and Groton, a distance of 1.2 miles;

G. Thence, southerly along Chicopee Row to the intersection of Hollis Street, a distance of 4.0 miles;

H. Thence, southerly along Hollis Street to Groton Center and the intersection of Route 119, a distance of 0.5 miles;

I. Thence, southerly along Route 119 to Interstate 495 in Littleton, a distance of 11.0 miles;

J. Thence, southerly along Interstate 495, to Interstate 290 in Marlborough, a distance of 5.6 miles;

K. Thence, westerly along Interstate 290 to exit 21 in Worcester, a distance of 10.7 miles;

L. Thence, northerly along Plantation Street to the intersection with Northeast Cutoff (route 70 intersection), a distance of 0.71 miles;

M. Thence, northerly along Northeast Cutoff to East Mountain Street, a distance of 0.75 miles;

N. Thence, westerly along East Mountain Street to the intersection of West Boylston Street (Route 12) and West Mountain Street, a distance of 1.49 miles;

O. Thence, westerly along West Mountain Street to intersection with Doyle Road at the Worcester / Holden town line, a distance of 0.81 miles;

P. Thence, westerly along Doyle Road to Shrewsbury Street, a distance of 1.2 miles;

Q. Thence, westerly along Shrewsbury Street to Route 122A (Main Street), a distance of 0.9 miles;

R. Thence, westerly along Route 122A to Salisbury Street, a distance of 0.8 miles;

S. Thence, southerly along Salisbury Street to Fisher Road, a distance of 3.4 miles;

T. Thence, southerly along Fisher Road / Stonehouse Hill Road to Reservoir Street, a distance of 1.8 miles;

U. Thence, southerly along Reservoir Street to the intersection with Oleane Street at the Holden / Worcester town line, a distance of 0.2 miles;

V. Thence, southerly along Oleane Street to the intersection with Cataract Street, a distance of 0.06 miles;

W. Thence, southerly along Cataract Street to the intersection with Mower Street, a distance of 0.85 miles;

X. Thence, westerly along Mower Street to the intersection with Pleasant Street (Route 122), a distance of 0.23 miles;

Y. Thence, westerly along Route 122 to Airport Drive, a distance of 0.37 miles;

Z. Thence, southerly along Airport Drive, to Goddard Memorial Drive, a distance of 0.9 miles;

AA. Thence, southerly along Goddard Memorial Drive to Route 9, a distance of 1.9 miles;

BB. Thence, westerly along Route 9 to Route 56 in Leicester, a distance of 2.9 miles;

CC. Thence, northerly along Route 56 to Whittemore Street, a distance of 0.6 miles;

DD. Thence, northerly along Whittemore Street to Hill Street at the Paxton town line, a distance of 2.7 miles;

EE. Thence, northerly along Hill Street to Marshall Street, a distance of 0.6 miles;

FF. Thence, westerly along Marshall Street to Suomi Street, a distance of 0.1 miles;

GG. Thence, northerly on Suomi Street to Route 31, a distance of 1.0 miles;

HH. Thence, easterly along Route 31 to Route 122 in Paxton Center, a distance of 0.9 miles;

II. Thence, northerly along Route 122 to Route 32, a distance of 12.7 miles;

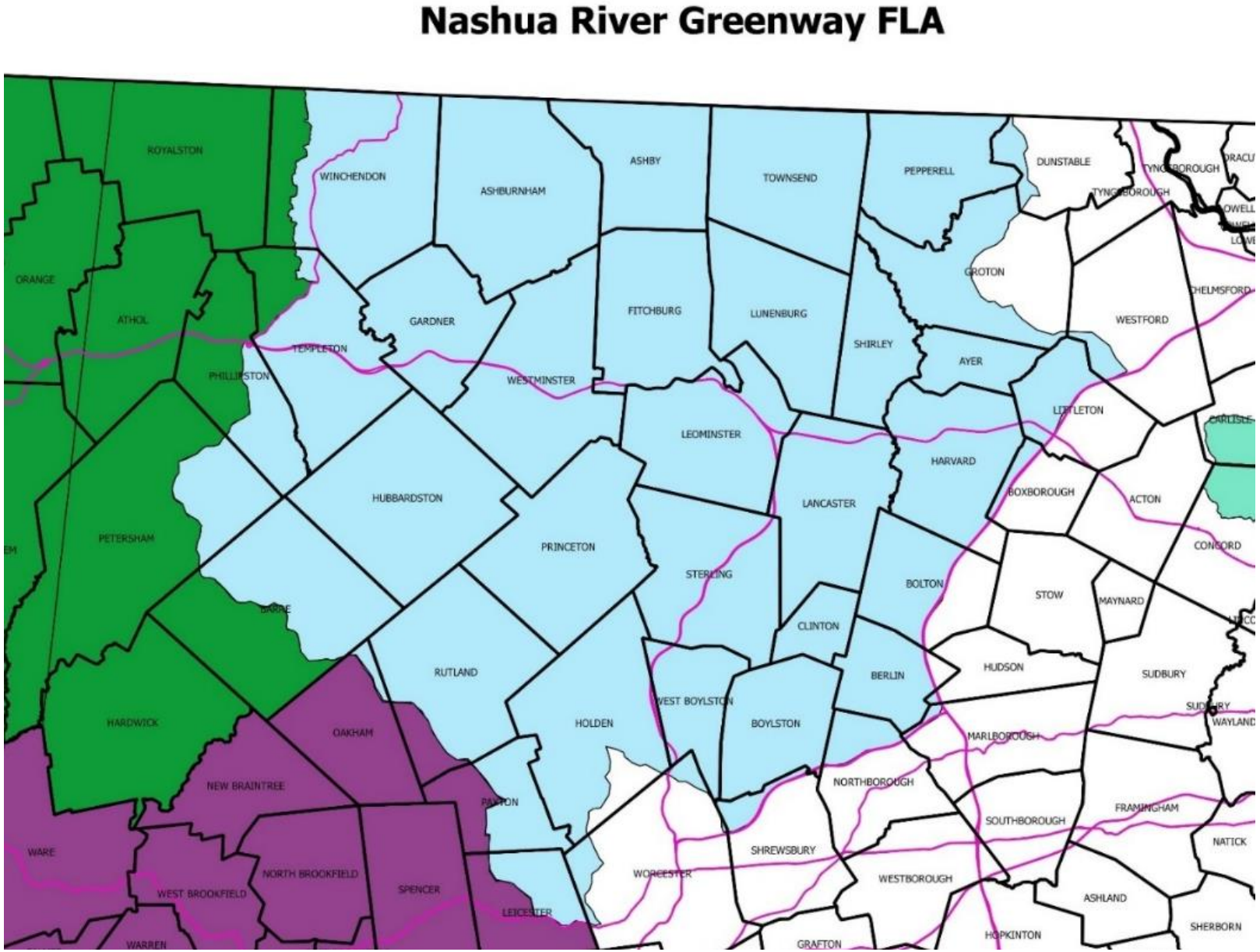
JJ. Thence northerly on Route 122 / 32 to Petersham where Route 122 bears west and Route 32 bears north, a distance of 8.4 miles;

KK. Thence, northerly along Route 32 to West Street, a distance of 0.6 miles, where the Nashua River Greenway Forest Legacy Area intersects with the North Quabbin Corridor Legacy Area;

LL. Thence, northerly along the easterly edge of the North Quabbin Corridor Legacy Area boundary, heretofore described, to the Massachusetts / New Hampshire State line...

Towns Within or Partially Within the Nashua River Greenway Forest Legacy Area

Ashby	Gardner	Oakham	Sterling
Ashburnham	Groton	Paxton	Templeton
Ayer	Harvard	Pepperell	Townsend
Barre	Holden	Petersham	West Boylston
Berlin	Hubbardston	Phillipston	Westford
Bolton	Lancaster	Princeton	Westminster
Boylston	Leicester	Rutland	Winchendon
Clinton	Leominster	Northborough	Worcester
Dunstable	Littleton	Shirley	
Fitchburg	Lunenburg	Shrewsbury	



Nashua River Greenway Forest Legacy Area Map

North Quabbin Corridor Forest Legacy Area

History

The North Quabbin Corridor Forest Legacy Area was established on August 5, 1993. On December 17, 2010, an amendment to the Assessment of Need was passed to expand the area. After the original area was established, development pressure in the area increased and advances in GIS technology revealed the ecological significance throughout the expansion area.

Boundary Description

A. Beginning at the intersection of the Tarbell Brook in the town of Winchendon and the New Hampshire / Massachusetts state line;

B. Thence, westerly along said New Hampshire / Massachusetts state line 29.69 miles to the intersection of the Town Line of Leyden and Colrain;

C. Thence, in a general southeasterly direction along the town boundary between Leyden and Colrain until the intersection with the Town line for Greenfield;

D. Thence, southwesterly along the town boundary between Greenfield and Colrain 0.69 miles until the intersection with the town line for Shelburne;

E. Thence, southerly along the town line between Greenfield and Shelburne 4.88 miles;

F. Thence, easterly along the town boundary between Greenfield and Shelburne 0.61 miles until the intersection with the Deerfield town line;

G. Thence, easterly along the irregular town boundary between the towns of Greenfield and Deerfield until the intersection with the town line for Montague;

H. Thence, along the irregular town boundary (center of the Connecticut River) between the towns of Montague and Deerfield southeasterly and southwesterly until the intersection with the town line for Sunderland;

I. Thence, along the town boundary between the towns of Montague and Sunderland easterly for 1.79 miles until the intersection with the town line for Leverett;

J. Thence, southerly along the town boundary between Leverett and Sunderland for 5.64 miles until the intersection with the town line for Amherst;

K. Thence, easterly for 2.13 miles along the town boundary between Amherst and Leverett until the intersection with the town boundary for Shutesbury;

L. Thence, southerly along the town boundary between Shutesbury and Amherst for 1.76 miles until intersecting the town line for Pelham;

M. Thence, southerly along the town boundary line between Pelham and Amherst for 3.85 miles until intersecting the town line for Belchertown;

N. Thence, easterly along the town boundary line between Pelham and Belchertown for 3.24 miles;

O. Thence, southerly along the town boundary line between Pelham and Belchertown for 1.60 miles;

P. Thence, easterly along the town boundary line between Pelham and Belchertown for 2.55 miles until the intersection with the town line for New Salem;

Q. Thence, southerly along the jagged town boundary between New Salem and Belchertown until the intersection with the town line for Ware;

R. Thence, north-easterly along the town boundary between New Salem and Ware until intersection with the town line for Petersham;

S. Thence, north-easterly along the town boundary between Petersham and Ware for 1.49 miles until intersection with the town line for Hardwick.

T. Thence, southerly along the town boundary between Hardwick and Ware for 3.9 miles;

U. Thence, easterly along the town boundary between Hardwick and Ware for 3.33 miles;

V. Thence, southerly along the town line between Hardwick and Ware for 1.27 miles:

W. Thence, easterly along the town boundary between Hardwick and Ware for 0.16 miles until the intersection with the town line for New Braintree;

X. Thence, north-easterly along the town boundary between Hardwick and New Braintree for 0.95 miles;

Y. Thence, north-westerly along the town boundary between Hardwick and New Braintree for 0.38 miles;

Z. Thence, easterly and northeasterly along the town boundary between Hardwick and New Braintree until the intersection with the town line for Barre;

AA. Thence, south-easterly along the town boundary between Barre and New Braintree for 0.69 miles until the intersection with the town line for Oakham;

BB. Thence, north-easterly along the town boundary between Barre and Oakham for 3.9 miles until the intersection with Route 122.

CC. Thence, north-westerly, generally, along Route 122 until the intersection with Route 32 in Barre;

DD. Thence, northwesterly, generally, along Routes 122 and 32 until the intersection of Routes 122 and 32 in Petersham;

EE. Thence, northerly, generally, along Route 32 until the intersection with Route 101, a distance of 1.53 miles;

FF. Thence, northeasterly along Route 101 to its intersection with Old Queen Lake Road, a distance of 3.41 miles;

GG. Thence, northeasterly along Old Queen Lake Road to its intersection with Searle Hill Road, a distance of 0.21 miles;

HH. Thence, northerly along Searle Hill Road to its intersection with Barre Road, a distance of 1.13 miles;

II. Thence, northerly along Barre Road to its intersection with Baldwinville Road in

Phillipston Center, a distance of 0.2 miles;

JJ. Thence, northerly along Baldwinville Road to its intersection with Route 2A, a distance of 1.4 miles;

KK. Thence, northeasterly along Route 2A to its intersection with Route 2 (junction at Four Corners in Phillipston) and Route 202, a distance of 0.2 miles;

LL. Thence, continuing northeasterly along Route 202 to its intersection with Otter River in Baldwinville, a distance of 3.7 miles;

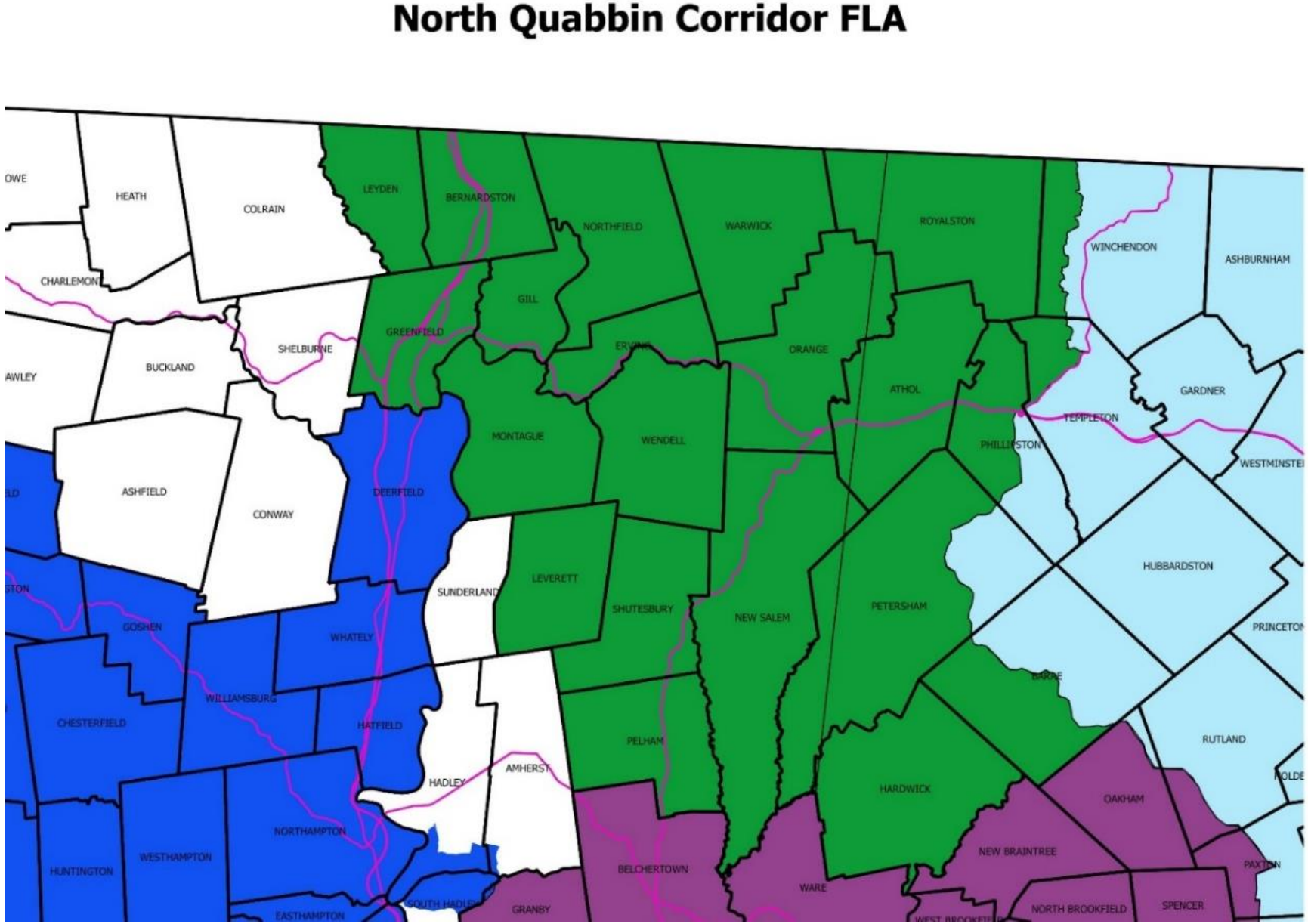
MM. Thence, northerly along Otter River to its intersection with Millers River, a distance of 3.4 miles;

NN. Thence, northerly along Millers River to its intersection with Tarbell Brook in the Town of Winchendon, a distance of 5.2 miles;

OO. Thence, northerly along Tarbell Brook to its intersection with the New Hampshire / Massachusetts State line at the point of the beginning, a distance of 2.4 miles...

Towns Within or Partially Within the North Quabbin Corridor Forest Legacy Area

Athol	Hardwick	Orange	Templeton
Barre	Leverett	Pelham	Warwick
Bernardston	Lyden	Petersham	Wendell
Erving	Montague	Phillipston	Winchendon
Gill	New Salem	Roylston	
Greenfield	Northfield	Shutesbury	



North Quabbin Corridor Forest Legacy Area Map

Western Massachusetts Forest Legacy Area

History

The Western Massachusetts Forest Legacy Area was established on October 11, 2016. This amendment to the Assessment of Need incorporated 3 historical Forest Legacy Areas (Conncticut Valley, Stockbridge Yokun Ridge, and Taconic Range) into this area as well as adding many towns in Berkshire, Hampden, and Hampshire counties. This 1.25 million acre FLA contains some of the largest blocks of intact natural landscape in southern New England

Boundary Description

A. Beginning at the intersection of the Massachusetts / Connecticut state line at the town boundary between the Towns of Agawam and Longmeadow;

B. Thence, westerly along the Massachusetts / Connecticut state line, along the southern border of the towns of Agawam, Southwick, Granville, Tolland, Sandisfield, New Marlborough, Sheffield, and Mount Washington, a distance of 40.3 miles;

C. Thence, northerly along the Massachusetts / New York state line, along the western border of the towns of Mount Washington, Egremont, Alford, West Stockbridge, Richmond, Hancock, and Williamstown, a distance of 49.8 miles;

D. Thence, easterly along the Massachusetts / Vermont state line to Northwest Hill Rd in the town of Williamstown, a distance of 1.0 mile;

E. Thence, southerly along Northwest Hill Rd to Main St, a distance of 2.5 miles;

F. Thence, easterly along Main St. to Thornliebank Rd, a distance of 0.2 miles;

G. Thence, southerly along Thornliebank Rd to Cold Spring Rd, a distance of 0.4 miles;

H. Thence, westerly along Cold Spring Rd to Bee Hill Rd, a distance of 0.1 miles;

I. Thence, southerly along Bee Hill Rd to Torrey Woods Rd, a distance of 2.0 miles;

J. Thence, easterly on Torrey Woods Rd to Oblong Rd, a distance of 0.6 miles;

K. Thence, southerly on Oblong Rd to Route 43, a distance of 3.41 miles;

L. Thence, southerly on Route 43 to the boundary between the Towns of Williamstown and Hancock, a distance of 1.7 miles;

M. Thence, southerly and easterly along the north-eastern boundary of the towns of Hancock, Lanesborough, Dalton, and Hinsdale to the boundary of the town of Washington, a distance of 33.5 miles;

N. Thence, easterly along the northern boundary of the towns of Washington and Middlefield to the boundary of the town of Worthington, a distance of 5.2 miles;

O. Thence, northerly along the western boundary of the towns of Worthington, Cummington, and Plainfield to the boundary of the town of Hawley, a distance of 12.3 miles;

P. Thence, easterly and southerly along the northern boundary of the towns of Plainfield, Cummington, Goshen, Williamsburg, and Whately to the boundary of the town of Deerfield, a distance of 23.4 miles;

Q. Thence, northerly along the western boundary of Deerfield to the to the center of the Connecticut River, a distance of 6.9 miles;

R. Thence, southerly along the eastern boundary of Deerfield, Whately, Hatfield, and Northampton in the center of the Connecticut River to the confluence of the Fort River and the Connecticut River, a distance of 24.3 miles;

S. Thence, easterly and northerly upstream along the Fort River to a point where it crosses Bay Rd in the town of Hadley, a distance of 0.8 miles;

T. Thence, southerly along Bay Rd to Lawrence Plain Rd, a distance of 0.1 miles;

U. Thence, southerly along Lawrence Plain Rd to Churma Road, a distance of 1.1 miles;

V. Thence, easterly along Churma Rd to its end at a cul-de-sac, a distance of 1.3 miles;

W. Thence, northerly along a line from the cul-de-sac to the intersection of South Maple St and Bay Rd, a distance of 0.4 miles;

X. Thence, easterly along Bay Rd to the Hadley / Amherst town line, a distance of 0.15 miles;

Y. Thence, southerly along the Hadley / Amherst town line to the intersection of the Hadley / Amherst / South Hadley town line, a distance of 1.11 miles;

Z. Thence, southeasterly along the Amherst / South Hadley town line to the intersection with Route 116 (Amherst St) at the Amherst / South Hadley / Granby town line, a distance of 0.43 miles;

AA. Thence, southwesterly along Route 116 (Amherst St) to the intersection with the South Hadley / Granby town line, a distance of 0.24 miles;

BB. Thence, southwesterly along South Hadley / Granby town line (a portion of which follows along Route 116) to the Granby / South Hadley town line corner near the intersection at Route 116 (Amherst Rd) and Pearl St., a distance of 2.09 miles;

CC. Thence, southeasterly along the Granby/South Hadley town line to its intersection with Route 116 (Amherst Rd), a distance of 0.02 miles;

DD. Thence, southwesterly along Route 116 (Amherst Rd) to the intersection of Pearl St in South Hadley, a distance of 0.01 miles;

EE. Thence, westerly along Pearl St to Route 47, a distance of 1.8 miles;

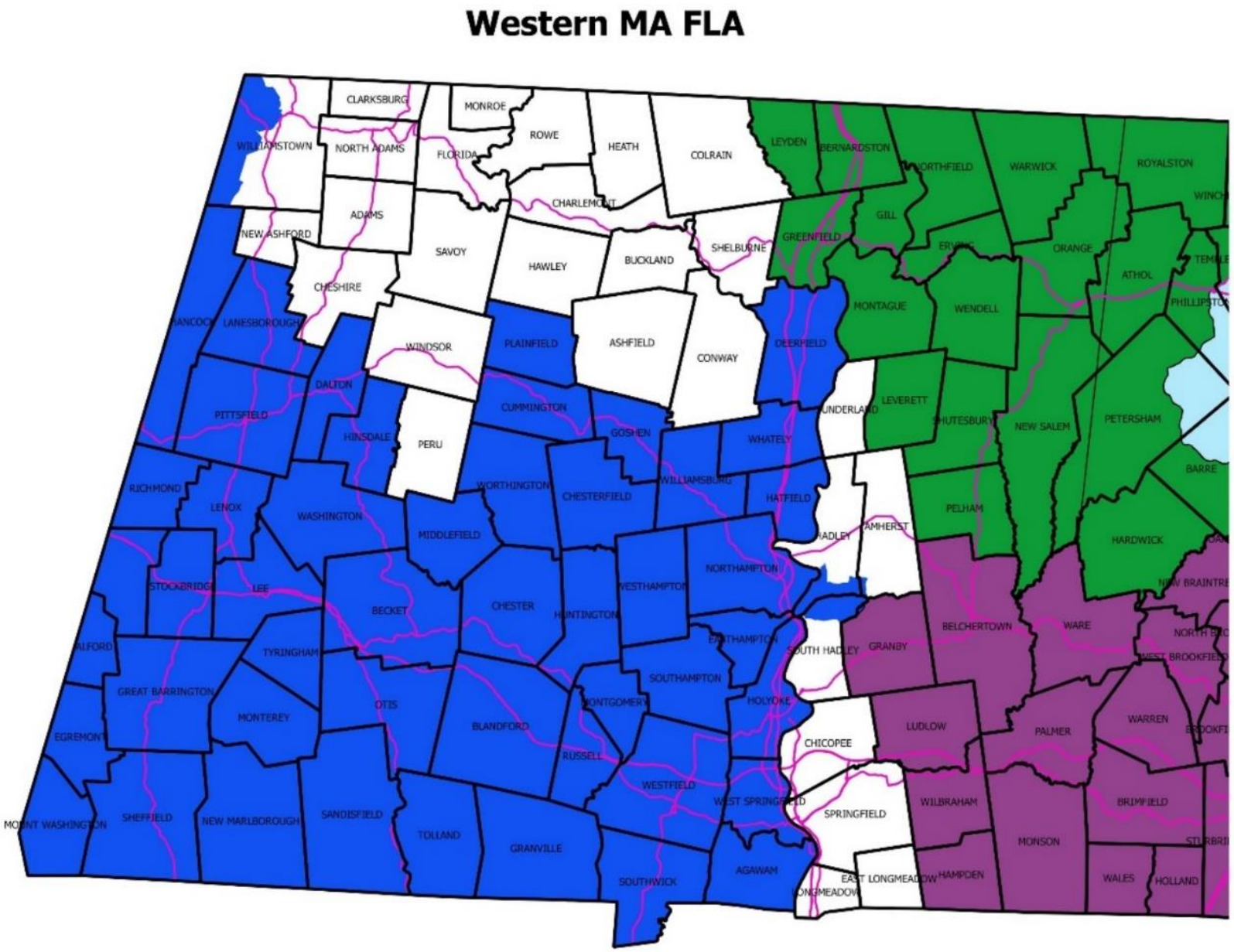
FF. Thence, northerly along Route 47 to the boundary between the towns of Hadley and South Hadley, a distance of 0.7 miles;

GG. Thence, westerly along the southern boundary of the town of Hadley to the center of the Connecticut River, the boundary of the city of Holyoke, a distance of 0.4 miles;

HH. Thence, southerly along the center of the Connecticut River, the eastern boundary of Holyoke, West Springfield, and Agawam to the Connecticut / Massachusetts state line at the point of beginning, a distance of 21.5 miles…

Towns Within or Partially Within the Western Massachusetts Forest Legacy Area

Agawam	Goshen	Lenox	Russell
Alford	Granville	Middlefield	Sandisfield
Becket	Great Barrington	Monterey	Sheffield
Blandford	Hadley	Montgomery	South Hadley
Chester	Hancock	Mount Washington	Southampton
Chesterfield	Hatfield	New Marlborough	Southwick
Cummington	Hinsdale	Northampton	Stockbridge
Dalton	Holyoke	Otis	Tolland
Deerfield	Huntington	Pittsfield	Tyringham
Easthampton	Lanesborough	Plainfield	Washington
Egremont	Lee	Richmond	West Springfield



Western Massachusetts Forest Legacy Area Map

APPENDIX B

Massachusetts Forest Legacy Program Authorization Letter

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE DEPARTMENT
STATE HOUSE • BOSTON 02133

WILLIAM F. WELD
GOVERNOR

ARGEO PAUL CELLUCCI
LIEUTENANT GOVERNOR

October 3, 1991

Mr. Michael Rains, Director
Northeast Area State & Private Forestry
USDA Forest Service
5 Radnor Corporate Center
100 Matsonford Rd.
Radnor, PA 19087

Dear Mr. Rains,

I am writing in response to a request to name a lead agency to cooperate with the U.S.D.A. Forest Service on the Forest Legacy Program in Massachusetts.

I am designating the Department of Environmental Management's, Bureau of Forest Development as the lead agency for this project. The Bureau is headed by Chief Forester Warren Archey who will serve as the principal contact for the Legacy program in the Commonwealth.

I am excited about the potential of this program to provide new means for the protection of critical forest lands in the Commonwealth, and look forward to its successful implementation.

Sincerely,

Bill Weld

William F. Weld
Governor

cc: Peter Webber, Commissioner DEM
Warren Archey, Ghief Forester

APPENDIX C

State Stewardship Coordinating Committee minutes of August 27, 1991, authorizing the establishment of a Forest Legacy Program Subcommittee

Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Management

P. O. Box 155
Clinton
Massachusetts
01510
(508) 368-0126

Division of
Forests & Parks
Region 3

TO: Massachusetts Stewardship Committee

Enclosed please find minutes of August 27, 1991 Stewardship Coordinating Committee Meeting.

Next Stewardship Committee Meeting
September 26th, 1991 at Auburn Rink at 9:30

Other Meetings
5 Year Plan Revision Subcommittee Meeting
September 16th, 1991 at the Auburn Rink, 9:30 a. m.

Forest Legacy Program - overview of new Forest Service Program. Tom Quink, Forest Legacy Coordinator, Subcommittee will be established to propose "Legacy Areas" throughout Massachusetts. No money available to purchase "rights" from willing landowners for this current year.

Land Trust Association in Massachusetts will meet with T. Quink to discuss Forest Legacy Program.

SIP Report - Chairman Bob Lear explained that some of the SIP Practices for Massachusetts will be ready for full Stewardship Committee review by September 26th.

5 Year Plan - Chairperson S. Campbell handed out a progress report. The 5 Year Plan subcommittees' timeline for the next few months and next year were discussed along with the idea of training sessions for resource professionals.

Mike Fleming informed the committee of an upcoming Stewardship Video conference February 15th, 1992. One site for visiting will probably be at Univ. of Mssachusetts Amherst. Contact Dave Kittredge.

The idea of a Full Time Stewardship Coordinator position was discussed. Hugh Putnam suggested that Mike Fleming spend as much time as possible on the program. Mike explained that some of his workload will be reassigned to other Bureau of Forestry Personnel.

APPENDIX D

Letters of Support

June 11, 2018

Lindsay Nystrom
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01520

Re: Forest Legacy Area Expansion

Dear Lindsay:

Buzzards Bay Coalition strongly supports the Massachusetts Forest Legacy Program's proposed Forest Legacy Area, Southeastern Massachusetts Expansion.

Buzzards Bay Coalition (BBC) is a non-profit conservation organization and nationally accredited land trust supported by 8,500 members dedicated to the protection, restoration and sustainable use and enjoyment of Buzzards Bay and its 432 square mile watershed. BBC pursues its mission through specific programs aimed at protecting and improving Bay health. These programs include water quality monitoring, research and education programs as well as an active Watershed Protection Program which supports the conservation of and restoration of bay watershed lands. BBC was selected from more than 1,700 land trust as the recipient of the first ever National Land Trust Excellence Award from the Land Trust Alliance for its work in preserving lands vital to the protection of Buzzards Bay, its rivers and its water resources. Since launching its land program, BBC has successfully accelerated land protection in the watershed in the face of strong development pressure, has successfully garnered federal, state and local funds as well as private funds and has protected more than 8,000 acres of watershed land.

The Buzzards Bay watershed overlaps with 12 of the 16 towns within the proposed expansion. Much of this area is privately owned woodlands that are currently under threat of land use conversion and fragmentation. BBC supports landowners, municipalities and conservation agencies and organizations in all of these towns and successful conservation outcomes are often limited by lack of funding. Expansion of the Forest Legacy Program Area to include these towns in Southeastern Massachusetts would have great benefits to the continuation of traditional forest uses and the variety of valuable natural resources that are supported by these forest lands.

Sincerely,

Brendan Annett
Vice President, Watershed Protection

www.savebuzzardsbay.org
114 Front Street, New Bedford, Massachusetts 02740 | Tel: 508-999-6363 Fax: 508-984-7913
21 Luscombe Avenue, Woods Hole, Massachusetts 02543 | Tel: 508-540-6222

Town of Dighton
Office of the Town Administrator
979 Somerset Avenue
Dighton, MA 02715
Tel: (508) 669-6431
Fax: (508) 669-5667

December 3, 2019

Lindsay Nystrom
Massachusetts Forest Legacy Program Coordinator
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

Re: Inclusion of the Town of Dighton as a Forest Legacy Area

Dear Ms. Nystrom,

Thank you for your correspondence dated October 8, 2019, explaining the Forest Legacy Program and the need to protect privately-owned forest lands.

Please consider this a letter of support for the Forest Legacy Program as well as a request to include the Town of Dighton, as a designated Forest Legacy Area. I understand that this designation would allow access to possible future funding sources for potential forest conservation projects.

Our community is very much interested in such preservation projects as we experience seemingly endless population growth. The new developments are built and oftentimes named after the very trees they just cut down to do so. We are happy to take steps to preserve our local forestry assets and enhance our natural environment.

Thank you for your kind attention and consideration.

Sincerely,

Mallory Aronstein, MCCPO
Town Administrator
Town of Dighton

OFFICE OF THE
CONSERVATION COMMISSION
TOWN HALL, 511 MAIN STREET
DUNSTABLE, MA 01827-1313
(978) 649-4514 FAX (978) 649-8893
mailto:conscom@dunstable-ma.gov

November 5, 2019

Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

Attn: Lindsay Nystrom

Ms. Nystrom,

The Dunstable Conservation Commission met on Monday, November 4, 2019 and discussed your letter regarding the Forest Legacy Program (FLP).

Members are in full support of expanding the program into our town, which would allow residents access to another funding source for forest conservation projects. We have many private landowners that have shown interest in protecting their forestlands from conversion to non-forest uses.

Dunstable residents have traditionally supported protection of important woodlands and critical wildlife habitat that makes up the rural character of our town. Adding Dunstable to the program would be another step in our quest to protect our important forests.

Respectfully,
The Dunstable Conservation Commission

FREETOWN
CONSERVATION COMMISSION
TOWN HALL **P.O. BOX 438**
ASSONET, MASSACHUSETTS 02702

December 9, 2019

Mass. Dept. of Conservation & Recreation
Attn: Lindsay Nystrom
355 West Boylston Street
Clinton, Mass. 01510

Dear Ms. Nystrom:

The Freetown Conservation Commission has reviewed your letter of October 8th regarding the Forest Legacy Program. We are in support of the expansion of this program, and of the inclusion of Freetown in the expanded area.

Should you have any questions or concerns, or require any further information, please contact us by e-mail at conservation@freetownma.gov or by telephone at (508) 644-2201.

Sincerely,

Keven V. Desmarais, Chairman
Freetown Conservation Commission

TOWN OF GROTON
173 Main Street
Groton, Massachusetts 01450-1237
Tel: (978) 448-1111
Fax: (978) 448-1115

Select Board
Alison S. Manugian, *Chair*
Joshua A. Degen, *Vice Chair*
John F. Reilly, *Clerk*
John R. Giger, *Member*
Rebecca H. Pine, *Member*

Town Manager
Mark W. Haddad

November 25, 2019

Lindsay Nystrom
Massachusetts Forest Legacy Program Coordinator
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

RE: Massachusetts Forest Legacy Area Designation

Dear Ms. Nystrom:

The Groton Select Board supports the proposed designation of a Forest Legacy Areas in central and south eastern Massachusetts. The remaining forest blocks in these areas of Massachusetts are highly threatened by development and urban sprawl as the population of Boston grows. These areas provide wildlife habitat, timber and other forest products, clean drinking water, and many exceptional recreational opportunities. Funding for the conservation of working forests and forest preserves is also consistent with the town's goal to promote agriculturally based economic opportunities, which includes the growing and harvesting of forest products.

For some regional context, over 50 % of the town's 32 square miles are forested. There are approximately 713 acres of private- and institutionally-owned forested land that have been protected with Conservation Restrictions. Additionally, approximately 608 acres in Groton are classified as Chapter 61 Forest Lands and are under a minimum ten-year management plan certified by the State Forester. On the public side, the Town has permanently protected numerous acres of (largely forested) open space. These properties are primarily managed by the Groton Conservation Commission (2,009 acres), the Town Forest Committee (516 acres), and the Groton Water Department (including the West Groton Water Supply District) (385 acres).

We believe the Forest Legacy Program is consistent with both the regional context of the Town of Groton as well as our goal to promote agricultural opportunities. Furthermore, we believe the Forest Legacy Program could be an important tool in conserving the region's forest resources while maintaining private ownership, and we strongly support the expansion of Massachusetts' Forest Legacy Areas.

Sincerely,

Groton Select Board
Alison S. Manugian
Alison S. Manugian, Chair

ASM/mwh
cc: Select Board

OFFICE OF THE
CONSERVATION COMMISSION
13 AYER ROAD HARVARD, MA 01451 978-456-4100 EXT.321 www.harvard.ma.us

November 19, 2019

Lindsay Nystrom
Department of Conservation & Recreation
355 West Boylston Street
Clinton, MA 01510

RE: Forest Legacy Program

Dear Ms. Nystrom,

The Harvard Conservation Commission (ConCom) vote unanimously at its November 7, 2019 meeting to support the efforts of the Massachusetts Department of Conservation and Recreation Forest Legacy Program (FLP) by expanding the Massachusetts Forest Legacy Area to include the Town of Harvard. The protection of important forest areas from development and fragmentation is one of the goals of the 2016 Open Space and Recreation Plan by protecting historic landscapes. The values of FLP go hand and hand with those of the Harvard ConCom by ensuring conservation of important public benefits that forested areas provide, including wildlife habitat, watershed function, water quality and quality recreational opportunities.

Thank you for this opportunity to be part of this program.

On behalf of the Commission,

Don Ritchie, Chair

Cc: File

TOWN OF HOPKINTON
TOWN MANAGER'S OFFICE

December 2, 2019

Lindsay Nystrom
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

Re: **Forest Legacy Program**

Dear Ms. Nystrom,

The Town of Hopkinton supports its inclusion in the Massachusetts Forest Legacy Area. For several years, Hopkinton has seen rapid residential growth. While the Town has been successful in preserving open space and forest land during this period, the Town has also seen a significant amount of forest converted to development and it has seen its forests fragmented. There are property owners in Hopkinton who are stewards of the forest land they own, and Hopkinton's inclusion in the Forest Legacy Program would provide them more opportunities and tools to undertake conservation projects.

Hopkinton's Master Plan (2017) includes the following goals:

- Preserve and enhance large tracts of privately owned open land in agricultural, recreational, or undeveloped use.
- Link public, private and semi-public open spaces together to form corridors for wetlands, wildlife and recreational uses and preserve wildlife corridors.

The Master Plan includes the following Action Plan item:

- Provide incentives for owners of large parcels to maintain their land as open space.
- Create open space links and corridors, using tools such as OSLPD, land trusts, donations of land, and conservation easements.

Inclusion within the Massachusetts Forest Legacy Area would help the property owners and further the Town's goals. It would also link Hopkinton's forest preservation goals with aligned regional and statewide goals.

18 Main Street, Hopkinton, MA 01748 | 508-497-9700 | elainel@hopkintonma.gov

Thank you, and please contact me if you have any questions or if you need additional information.

Sincerely,

Elaine Lazarus
Assistant Town Manager

TOWN OF HOPKINTON
OFFICE OF THE
PLANNING BOARD
18 Main Street, Hopkinton MA 01748
(508) 497-9745

January 14, 2020

Lindsay Nystrom
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

Re: Forest Legacy Program

Dear Ms. Nystrom,

The members of the Hopking Planning Board would like to express their collective support of the inclusion of Hopkinton in the Massachusetts Forest Legacy Area. As stated in the letter by Elaine Lazarus, Assistant Town Manager, the Town has undergone significant residential growth in recent years, which has had an adverse impact on the forest resources within Town.

Hopkinton has and continues to make an effort to conserve forest resources in Town, and we hope that the inclusion of Hopkinton in DCR's Massachusetts Forest Legacy Area will help in this ongoing effort.

Sincerely,

John Gelcich, AICP
Principal Planner

Town of Lakeville
PLANNING BOARD
346 Bedford Street
Lakeville, MA 02347
508-946-3473

Brian Hoeg, Chairman
Sylvester Zienkiewicz, Vice Chairman
Peter Conroy
Barbara Mancovsky
Mark Knox

December 18, 2019

Ms. Lindsay Nystrom
Massachusetts Forest Legacy Program Coordinator
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

Dear Ms. Nystrom,

This is in response to your October 8, 2019, letter regarding the proposed expansion of the Forest Legacy Area. This proposal would allow grant funding from The Forest Legacy Program (FLP) to be available for the conservation of additional forest areas in the state of Massachusetts. The Lakeville Planning Board reviewed your correspondence at their November 14, 2019, meeting. It was voted by the Board to forward you their unanimous support for this initiative.

At this meeting, one Board member also commented upon an individual they were acquainted with who owns a large forested property. That individual found the knowledge gained from participating in this type of program invaluable. It was not only beneficial to them and their business but also to the environment and the community. As developable land becomes progressively scarce in the Commonwealth, alternative economic options such as The Forest Legacy Program will become instrumental to land owners whose desire is to preserve their land but may find it unfeasible because of varying financial situations.

The Planning Board recognizes the importance of maintaining forested areas, not only within the State, but also within the Town of Lakeville. Responsible management of a forest provides a variety of benefits including employment opportunities, protection for watersheds, and preventing soil erosion. Forests are also home to a diverse population of wildlife and plant species. The loss of a forest is the loss of an entire ecosystem. As this program is voluntary and imposes no regulatory constraints on the landowner, the Planning Board feels it is a program they can whole heartedly endorse. They look forward to receiving additional information when these changes are implemented.

Sincerely yours,

Brian Hoeg, Chairman
Lakeville Planning Board

TOWN OF MARION
CONSERVATION COMMISSION
2 SPRING STREET
MARION, MASSACHUSETTS 02738
Telephone (508) 748-3515

November 20, 2019

Lindsay Nystrom
Massachusetts Forest Legacy Program Coordinator
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

RE: Massachusetts Forest Legacy Area Designation

Dear Ms. Nystrom:

The Marion Conservation Commission supports the proposed designation of a Forest Legacy Areas in south central and south eastern Massachusetts, provided that there is no additional regulatory burden, or required action by public or private landowners. The remaining forest blocks in these areas of Massachusetts are highly threatened by development and urban sprawl as the population of Boston grows. These areas provide wildlife habitat, timber and other forest products, clean drinking water, and many exceptional recreational opportunities. Funding for the conservation of working forests and forest preserves is needed to help our organization pursue key projects within the region.

We believe the Forest Legacy Program could be an important tool in conserving the region's forest resources while maintaining private ownership, and we strongly support the expansion of Massachusetts' Forest Legacy Areas.

Sincerely,

Jeffrey Doubrava, Chair
Marion Conservation Commission

Town of Mendon
Land Use Committee
20 Main Street, Mendon, MA 01756
www.mendonma.gov

December 17, 2019

Lindsay Nystrom
Massachusetts Forest Legacy Program Coordinator
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

Dear Lindsay Nystrom,

The Mendon Land Use Committee fully supports Mendon becoming a Forest Legacy Area.

Mendon still has large areas of undeveloped contiguous forests and natural vegetation. According to the MA BioMap2, Mendon has sizeable portions of the town that fall under Core Habitat and Critical Natural Landscapes. However, they are under threat by development. The towns from Boston right up to Mendon are built-out putting heavy pressure on Mendon for sprawling development.

Mendon also has a successful record of preserving land through using CPA funds and state grant programs. Mendon would find the Forest Legacy Program to be an asset to support the protection of forestland.

Thank you for your efforts to include Mendon in the Forest Legacy Program.

Sincerely,

Anne S Mazar

Anne Mazar
Mendon Land Use Committee Chair
508.280.8826

cc: Mendon Conservation Commission

METACOMET
LAND • TRUST
P.O. Box 231
Franklin, MA 02038

January 9, 2020

Lindsay Nystrom
Massachusetts Forest Legacy Program Coordinator
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

Dear Lindsay,

At its December 19, 2019, meeting the Metacomet Land Trust Board of Directors voted to strongly support the proposed expansion of the Massachusetts Forest Legacy Program service area into south central Massachusetts. The trust works in 15 communities throughout southern Worcester and Norfolk Counties and the expansion of the Legacy program would be greatly beneficial to those we regularly engage with including landowners, municipalities and the Commonwealth.

Should you have any questions please contact me and we look forward to working with you in the event that the Legacy program successfully expands to include our service area.

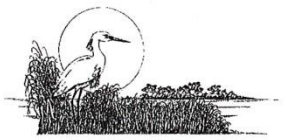
In conservation,

Lisa Mosczynski

Lisa Mosczynski
President
508-341-4876

Metacomet Land Trust is a charitable organization recognized as a 501 c 3 tax exempt organization by the Internal Revenue Service (EIN 04-3020897) and the Commonwealth of Massachusetts. Donations are tax-deductible to the extent allowed by law.

www.metacometlandtrust.org



Mattapoisett Land Trust, Inc.

June 13, 2018

Ms. Lindsay Nystrom
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01520

Subject: Letter of Support – Expansion of Forest Legacy Area into Southeastern Massachusetts.

Dear Ms. Nystrom:

On behalf of the Mattapoisett Land Trust, Inc. (MLT) I write to strongly support the proposal by Massachusetts DCR to expand the Forest Legacy Area to include 16 new communities in southeastern Massachusetts, including our town of Mattapoisett. MLT is an all-volunteer, nonprofit organization of 300 members presently conserving over 700 acres of land in Mattapoisett and Rochester.

MLT has worked hard for over forty years to permanently protect sensitive land and create large areas for wildlife habitat, public passive use, and beautiful scenic vistas. The work in Mattapoisett is by no means over, and we would welcome further involvement, support and funding from DCR. The expansion of the FLP will bring more federal dollars to state agencies, and those agencies in turn can utilize additional funds for land protection in Mattapoisett and surrounding towns. In our view, this fills an important need and is an excellent use of public money.

Please contact me if I can provide further information, and thank you for your work to expand the FLP areas.

Sincerely,

Mike Huguenin
President

Post Office Box 31
Mattapoisett, Massachusetts 02739
www.mattlandtrust.org

We preserve land in order to enrich the quality of life for present and future generations of Mattapoisett residents and visitors.

Plympton Conservation Commission

5 Palmer Road

Plympton, Ma 02367

Lindsay Nystrom

Massachusetts Forest Legacy Program Coordinator

Department of Conservation and Recreation

355 West Boylston St

Clinton MA 01510

Dear Ms Nystrom

The Town of Plympton, located in Southeastern Massachusetts, has many forests that are primarily in private ownership. In fact, only 4% of the town's land is permanently protected. About one- third of the town's parcels are registered in Chapter 61 for forestry or related uses. Plympton is a small town with a population of 2800, with a residential tax base, and a modest town operating budget.

The Massachusetts Heritage program rates almost 2/3 of the Town's land as either critical or core habitat. 12 Endangered species have been recorded, as well as other Threatened and vulnerable species. Plympton relies solely on private wells and septic systems, and has no designated community well sites for future contingencies- a problem we are working to remedy through acquisition of key sites. In sum, we are a town rich in natural resources but poor in our ability to help landowners protect them for the future.

Through town-wide surveys, Plympton residents rate "maintaining our rural character" and "protecting our water quantity and quality" as their top priorities.

The expansion of the Forest Legacy Areas program would provide our private landowners with another option for preserving their forested lands. We hope very much that the program can be expanded.

Please contact me if you would like further information.

Sincerely,

Richard Burnet, Chair

Rochester Conservation Commission & Town Forest Committee
Town Hall Annex, 37 Marion Road, Rochester MA 02770
Phone: 508-763-5421 Fax: 508-763-5379

November 25, 2019

Lindsay Nystrom
Massachusetts Forest Legacy Program Coordinator
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

RE: ROCHESTER – Letter of Support for inclusion of the Town of Rochester In the Massachusetts Forest Legacy Area

Dear Ms. Nystrom;

The Rochester Conservation Commission & Town Forest Committee voted unanimously at its November 19, 2019 meeting to wholeheartedly support Massachusetts DCR's proposal to include the Town of Rochester in its expanded the Forest Legacy Area eligible for FLP funding. The Town of Rochester has a number of large privately-owned woodlands that are under threat of fragmentation and conversion to non-forest uses. We support DCR's efforts to provide our Town another funding source to protect these vital properties.

Please feel free to contact me at lfarinon@townofrochester.com or 508-763-5421 extension 206 with any questions or comments.

Very truly yours,

Laurell J. Farinon, P.W.S.
Conservation Agent

Sudbury Valley Trustees

Conservation, Collaboration, and Community since 1953

June 5, 2018

Lindsay Nystrom
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01520

Dear Ms. Nystrom,

On behalf of Sudbury Valley Trustees, I'm writing to enthusiastically support the expansion of Forest Legacy areas in east-central Massachusetts.

Sudbury Valley Trustees (SVT), founded in 1953, is a regional land trust that conserves land and protects wildlife habitat in the Concord, Assabet, and Sudbury river basin for the benefit of present and future generations. We care for some of this region's most important forests, wetlands, and grasslands—natural areas that support wildlife habitat, working farms, and recreational trails. As of 2018, SVT cares for more than 4800 acres on 89 reservations and 77 Conservation Restrictions and maintains 55 miles of trails. We collaborate with numerous partner organizations, and our work is supported by 2800 members and 200 volunteers.

This proposed Forest Legacy expansion promises to bring needed attention to a region of the Commonwealth where expansive forests, copious drinking water resources, and diverse wildlife habitats have been increasingly threatened by development pressure – the sprawl frontier. Since many of these resources remain privately owned, expanding the Forest Legacy Program's reach in the region will have a strong positive impact on conservation. Not only does this represent an important opportunity for protecting large tracks of ecologically significant land, but also for protecting the character of communities and the quality of life in the region.

The proposed expansion will cover much of the western portion of SVT's focus area. This contains large blocks of unprotected lands that we have identified in a recent prioritization exercise as being of high value for conservation because of their roles in protecting wildlife habitat, water quality, and ability to adapt to climate change, in addition to other qualities. Most of these areas are densely forested.

Sudbury Valley Trustees shares the Forest Legacy Program's commitment to working in close collaboration with landowners, businesses, local conservation commissions and government agencies to protect land. We believe the Forest Legacy Program will be well served by the proposed expansion of Forest Legacy areas in central-eastern Massachusetts.

Sincerely,

Lisa Vernegaard
Executive Director

cc: Joe Smith

18 Wolbach Road • Sudbury, MA 01776-2429 • tel 978-443-5588 • fax 978-443-2333 • www.svtweb.org

ROCHESTER LAND TRUST, INC.

Please consider this a letter of support for the proposed expansion of Massachusetts' Forest Legacy Program Assessment of Need. The expansion of the Forest Legacy Area to include towns in Southeastern Massachusetts is critical in helping groups like the Rochester Land Trust aid local residents. Land-rich owners may find themselves torn between retaining the scenic and natural lands they've grown to love and cherish and very real financial needs that could push them to sell, potentially losing natural land for the foreseeable future. A program such as this could go a long way towards helping us provide them a better alternative.

The area of SE MA may seem to be all suburbia, but the 36.4 square miles that make up Rochester put it in the top largest Massachusetts town in land area. With a population just over 5000, the density per square mile is as low as many of the towns already in the program in the western part of the state. We are lucky that we have large tracts of White Pine, Beech and Pine Barren forests. Loss of these forested areas poses an increasing threat to the integrity of our town's natural resources. As these areas are fragmented and disappear, so do the benefits such as habitat for wildlife, drinking watershed, forest products and outdoor activity opportunities that they provide. We truly need help protecting these "working forests"

We urge the Massachusetts Department of Conservation and Recreation to update its Forest Legacy Program and to include areas in SE Massachusetts to help identify and protect privately owned woodlands that are under threat in this part of the state.

Thank you for your consideration of our needs.

Laurene Gerrior

Laurene Gerrior
Board of Directors
Rochester Land Trust

Post Office Box 337, Rochester, Massachusetts 02770

TOWN OF UPTON, MASSACHUSETTS

Conservation Commission

January 8, 2020

Lindsay Nystrom
Massachusetts Forest Legacy Program Coordinator
Department of Conservation and Recreation
355 West Boylston Street Clinton, MA 01510

Dear Lindsay,

The Upton Conservation Commission strongly supports the proposed expansion of the Forest Legacy Program service area into southcentral Massachusetts, including the Town of Upton.

Upton has an exceptional amount of protected open space and thousands of acres of unprotected developable land. There remain many opportunities to expand and link contiguous areas of protected open space and we would welcome support the Forest Legacy Program could provide.

Sincerely,

Christine Scott

Chair Upton Conservation Commission

cc: Upton Town Manager

One Main Street • Suite 9 • Upton, MA 01568
T: 508.529.6286 • F: 508.529.1010

P.O. Box 718
219 Main Street, Suite E
Wareham, MA 02571
May 23, 2018

Lindsay Nystrom
Massachusetts Forest Legacy Program Coordinator
Department of Conservation and Recreation
355 West Boylston Street
Clinton, MA 01510

RE: Massachusetts Forest Legacy Area Designation

Dear Ms. Nystrom:

The Wareham Land Trust, Inc. (WLT) supports the proposed designation of a Forest Legacy Areas in south central and south eastern Massachusetts. The remaining forest blocks in these areas of Massachusetts are highly threatened by development and urban sprawl as the population of Boston grows. These areas provide wildlife habitat, timber and other forest products, clean drinking water, and many exceptional recreational opportunities. Funding for the conservation of working forests and forest preserves is needed to help our organization pursue key projects within the region.

There are significant forested areas along and near the Weweantic and Agawam Rivers in Wareham that WLT has set as acquisition goals. In addition, there are wooded areas remaining along Stoney Run and other small tributaries to Buzzards Bay that still need conserving. We would hope that the Forest Legacy Program may be of help in our conservation plans.

We believe the Forest Legacy Program will be an important tool in conserving the region's forest resources while maintaining private ownership, and we strongly support the expansion of Massachusetts' Forest Legacy Areas.

Sincerely,
John H. Browning
Vice President Land Protection