

## Chapter 2 Land Use

### Section 2.1 – Introduction

All communities have recognizable arrangements of residential, commercial, industrial, and institutional development, transportation features, vacant land, and water. These arrangements make up land use patterns that can be grouped into categories with common attributes. The presence of distinctive land use patterns contributes to that hard-to-define virtue known as “community character”.

Hubbardston’s community character is composed of several faces, each with defining natural and built features: large tracts of forests, wetlands and water, farms, historic buildings and sites, municipal buildings, a town center, and residential homes dotted throughout the town.



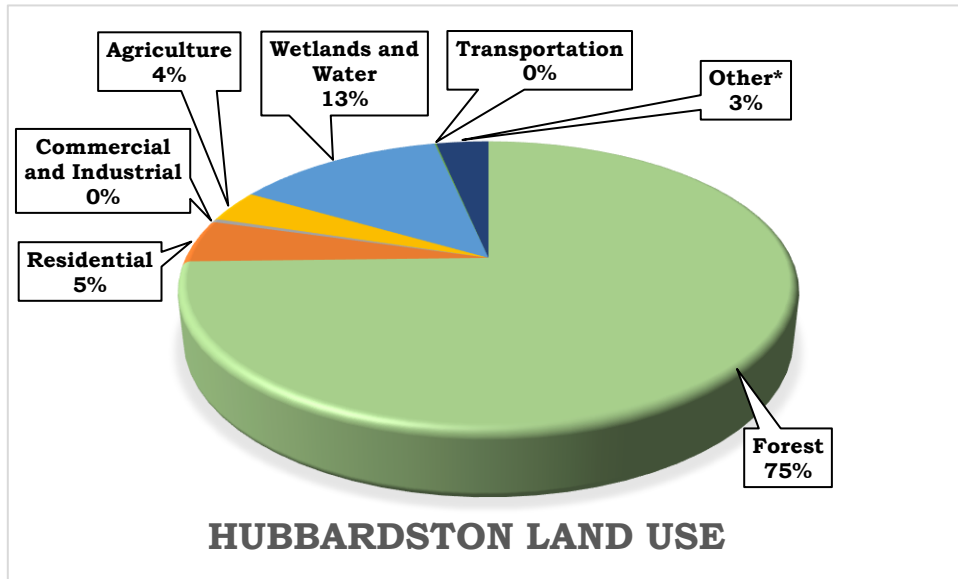
Most decisions about land use are made by private-sector landowners, builders, and occupants. The most important way communities regulate their land use policies is through zoning: the practice of dividing land into mapped districts, each with prescribed uses, density, and intensity regulations. Since zoning involves a multitude of policy choices and adoption by town meeting, it is inherently political. Land use policies strongly influence, and thus must be informed by, the economic development, transportation, housing, and civic needs of the community. Development that predates zoning tends to be organic, whereas development that follows the adoption of zoning tends toward a more uniform appearance because the lots and structures must meet specific dimensional requirements.

The data and analysis in this chapter are based on information obtained from the Montachusett Regional Planning Commission (MRPC), Town of Hubbardston Records & the U.S. Census Bureau. Methodology for the US Census estimates can be found at: <https://www.census.gov/programs-surveys/popest/technical-documentation/methodology.html>

**Quantitative Assessment**

Single-family home development is the most common type of developed land use in Hubbardston. According to data as calculated through MRPC GIS in 2015 (depicted in Figure LU-1), land devoted to residential uses account for about 4.8% or 1,290 acres of the town’s total acreage (26,871). Hubbardston has large amounts of developed forest or wetlands and water amounting to 87.8% or 23,593 acres of the total acreage (26,871). This can be observed from just about any road in town or in aerial photographs.

**Figure LU-1: Existing Land Use**



The existing land use covering the Town, as calculated through MRPC GIS in 2015, is shown in Figure LU-1. As indicated in Table LU-1, 20,045 acres or 74.6 percent of total area, are classified as forest. The next major land use within the Town of Hubbardston is wetlands and water use with a total of 3,547 acres or 13.2% percent of total area, Agriculture uses total 967 acres or 3.6% percent, of total area. Residential uses make up 1,289 acres or 4.8% percent of total land area.

**Table LU-1: Existing Land Use Breakdown by Percentage**

LAND USE	PERCENTAGE	ACRES
Forest	74.6	20,046
Residential	4.8	1,290
Commercial and Industrial	0.4	107
Agriculture	3.6	967
Wetlands and Water	13.2	3,547
Transportation	0.1	27
Other*	3.3	887
Total	100	26,871

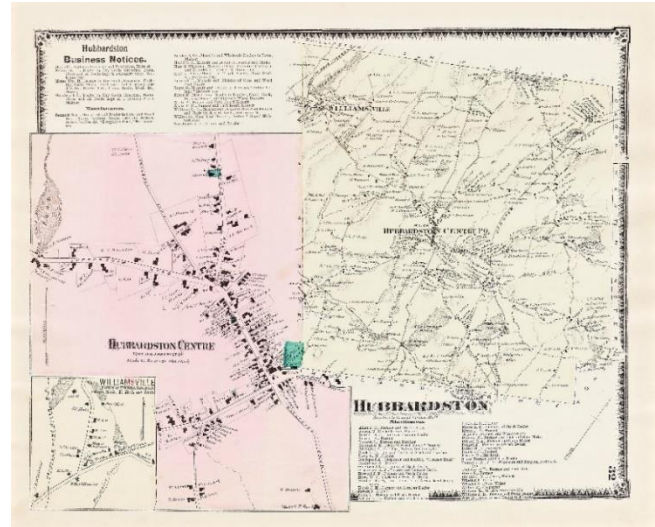
\*Where the zoning does not fit one of the previously mentioned classifications

Map LUM-1 in the Land Use Appendix illustrates the land use categorized in Figure LU-1. The Map illustrates the prevalence of forest dedicated lands, wetland, water, agriculture, and residential uses, as well as other land use categories.

## Section 2.1 – Existing Conditions and Development Trends

### Settlement

Significant growth occurred in Hubbardston in the early Industrial period (1830-1870) period as the central village became a commercial and light industrial (chairs, boots, and shoes) focus. Intensive commercial and residential development occurred on Main Street between the Orthodox and Unitarian churches. Linear development also extended from the central corridor northeast on Gardner Road, west on Elm Street/Barre Road, and east on Westminster Road. Larger industrial establishments were built on the village periphery (Petersham Road tannery and Templeton Road chair factory). Outside the central village, dispersed upland agriculture continued, and small-scale industrial shops proliferated. The most significant of these secondary clusters is the chair manufacturing village at Williamsville on the Burnshirt River, with worker housing on Templeton Road.



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The most notable change during the late Industrial Period (1870-1915) was the Brigham Pond industrial development southeast of the town center on the Ware River corridor. A textile mill was located at the western pond outlet, with worker housing on Worcester Road, and box factories on the east and northeast ends of the pond. Limited development occurred in the central village, including a public library (1874), a few small, stylish residences on Main Street, and some residential infill on the south side of Elm Street. Railroad depots were located at Williamsville, and east of the town center on Westminster Road.

During the first three decades of the 19th century, new sawmills were built in or around the developing areas of manufacturing to accommodate the increased demand for lumber. Douglas and Holden contained ten sawmills each, while the agricultural towns of Sturbridge, Barre, and Hubbardston had 13, 13, and 15 mills respectively in 1831. At the same time as the building of the Quabbin Reservoir (1938), the creation of surrounding watershed management areas resulted in the removal of industrial and residential development in Barre, Hubbardston, Oakham, Petersham, and Rutland. Dairy and berry farming and market gardening became major enterprises.

Hubbardston has retained some of its historic development pattern, in which much of the town's activity is concentrated into the community's town center district while

most of its outlying areas are developed with residential and agricultural uses. Owing to high rates of residential growth driven in the mid-to-late 20<sup>th</sup> century, Hubbardston saw sprawling land use pattern common to many American towns that saw significant growth during the period of suburbanization. Sometimes referred to as suburban sprawl, the development that took place during this era featured patterns of large-lot single family homes segregated from automobile-oriented commercial corridors.

### **Residential**

Given Hubbardston's rural history and large lot zoning requirements it is not surprising that single-family homes only occupy 4.8% of land use with a 2-acre zoning (2 acres equals 80,000 square feet) requirement that includes a 200' frontage requirement. This large lot zoning requirement led to the sprawling residential growth pattern.

Much of Hubbardston's moderately dense housing is a result of historical (pre-zoning) development rather than present day land use policy. Map LUM-2 in the Land Use Appendix illustrates single-family homes on lots less than 80,000 square feet, many concentrated in the town center.

#### **TOOL KIT**

Although, Hubbardston has large lot zoning requirements it does have zoning tools in place that cluster development while preserving open space such as the Open Space Residential Development (OSRD).

To learn more about other Sustainable Development Principles [click here](#)

### **Agriculture**

Throughout Ashburnham's history, agriculture was the mainstay of the economy. Originally called the "Northeast Quarter", Ashburnham was part of Rutland until it became a town in 1767. It was named for Thomas Hubbard, one of the original proprietors. The first European settlers were recorded in 1737. The community has

been described by historians as a poor town in its early years, sparsely settled and almost solely agricultural. By the 18th century, there were sawmills, potash works and cottage industries, including the making of palm leaf hats, chairs, cabinets, shoes, and horse blankets.

By the 19th century, dairy and berry farming and market gardening were major enterprises. Immigrants from Ireland, French Canada, England, Sweden, and Finland moved to town to work on local farms. The town's early economy was based on agriculture and small-scale chair, boot, and shoe manufacturing. Dairy and berry farming and market gardening were major pursuits in the town.

There are prime farmlands soils throughout Ashburnham. Most overlay coarse glacial deposit and till bedrock zones. As agriculture shifted westward from New England, many farm fields were abandoned and slowly became reforested.

Table LU-3 below shows, 1,441.77 acres in Ashburnham are under Chapter 61 agreements. Lands under special taxation programs are presently managed by their



owners for forestry (Chapter 61), agriculture (Chapter 61A), or recreation (Chapter 61B). This means the land is taxed at its forestry, agricultural, or recreational value, not fair market value. The intent of the state laws that authorize these agreements is to encourage productive and extensive land uses.

#### **TOOL KIT**

The State of Massachusetts is losing agricultural lands and land for farming opportunities at an alarming rate. The loss of agricultural land not only alters the traditional New England landscape, but it also creates a growing dependence on imported food and increases food prices due to transportation costs. Preservation techniques not only protect agricultural land but also protect existing natural resources, maintain groundwater recharge areas, protect wildlife habitat and cultural and historic landscapes, and fosters local economies by strengthening resource-based businesses.

Bylaws, ordinances, and regulations (bylaws) and initiatives/programs can be adopted to preserve these precious lands. Among them are:

1. Accessory uses allow farms to diversify uses making them more sustainable by allowing pick your own, farm tours, farm stays, retail facilities, restaurant, winery, brewery, value added product processing facilities, educational, recreational, harvest festivals, private events, and weddings.
2. Transfer of Development Rights (TDR)
3. Agriculture Preservation Restrictions (APR)
4. Community Gardens
5. Farm Viability Enhancement Program (FVEP)
6. Concentrate development e.g., Town Center zoning, cluster zoning, large lot zoning and Open Space Residential Design (OSRD)

### **Town Center and Commercial**

Hubbardston's commercial districts comprise of 67.27 acres zoned for "downtown" business (Town Center) and 341.60 acres zoned for commercial. Refer to the Zoning District Map LUM-3 in the Land Use Appendix for the locations of the districts.

The Town Center (Business District) is located on Worcester Road (Route 68) The District is a custom zoning district created specifically for the area. (Map LUM-8) The district is zoned with small business in mind to strengthen the core commercial center along Main Street and to encourage commercial and residential revitalization in harmony with its traditional town center character.

The two Commercial Districts lie adjacent to the Town Center Business District along Worcester Road (Route 68) and the Intersection of Route 68 and Route 62. The latter, one of the busiest areas of town, emulates historic development patterns in the area. However, due in large part to large lot and frontage requirements a small retail/social center exists with several businesses extends out, away from the center.

#### **TOOL KIT**

Current Zoning requirements result in very low-density commercial development pattern in the town center, commercial and industrial districts.

To learn more about Smart Growth Tools visit [State of Massachusetts Smart Growth Tool Kit](#)

### Education And Religious

Hubbardston has one elementary School grades K-6 located in the town with a land area of 7.3 acres. This parcel also includes the town hall, fire and police departments and the public library. Hubbardston is a member of the Quabbin Regional Middle School (7-8) and High School (9-12) located in Barre and a member of the Montachusett Regional Vocational Technical School located in Fitchburg.

Places of worship include Evangelical Congregational Church (.7 acres), First Parish Unitarian Church/Hubbardston Federated Church (1.05 acres), and Church in Wyldewood<sup>1</sup> (2.25) with a total land area of 4.10 acres.

### Conservation & Recreation

Hubbardston's character is defined by its extensive, high-quality Open Space & Natural resources. Map LUM-4 in Appendix C shows Open Space by owner. As indicated in Table LU-2, accounts for 10,881.81 acres or 40.62 percent of total land in Hubbardston protected open space by public (federal, state, and municipal). Conscious efforts have been made by the Town of Hubbardston to acquire open space in a way which produces larger and contiguous parcels.

**Table LU-2: Open Space by Ownership**

Owner	Owner Class	CR	ACRES
Army Corps of Engineers (ACOE)	Federal	NO	46.67
M97	Fitchburg	NO	465.96
Department Of Environmental Management (DCR)	State	NO	1,150.48
Division Of Fisheries and Wildlife (DCR)	State	NO	231.44
Department Of Conservation & Recreation (DCR)	State	NO	8,514.05
Department Of Conservation & Recreation (DCR)	State	YES	320.70
	State - Total		<b>10,216.66</b>
M140	Town	NO	84.78
M140	Town	YES	67.73
	Town- Total		<b>152.51</b>

The aggregation of adjacent parcels enhances protection of natural resources by reducing fragmentation and widening corridors. Connecting parcels also creates an opportunity for trail building within the town and region. Collaboration among many owners, whether public or private, has resulted in a large, protected open space inventory. Municipal protected lands abut private lands and other public lands throughout the town.

<sup>1</sup> Property is located on the border of Templeton and Hubbardston with the address in Templeton.

Included in this inventory are areas, both public and private, protected in perpetuity with a Conservation Restriction (388.43 acres) and another 10,493.38 protected acres (without Conservation Restrictions). The lands in this inventory are spread relatively evenly throughout Hubbardston, making them accessible to all populations. They help to protect valuable water resources and wildlife habitats. Public and private recreation and conservation lands are protected in perpetuity if they have been dedicated to such uses by deed. Municipal properties may be protected if specified in funding for acquisition. Private land can be protected in perpetuity if there is a conservation restriction placed on the property. The Town has private land parcels (67.73 acres) protected in perpetuity.

**TOOL KIT**

It will be important to continue to work with various public and private agencies to protect adjacent lands of conservation interest that are not yet permanently protected.

Other open space may be protected by Hubbardston Zoning Regulations. The Wetlands Protection Bylaw, the Massachusetts Wetlands Protection Act, and the Massachusetts River Protection Act. Lands under special taxation programs, including Chapter 61 Forestry (694.11 acres), 61A Agriculture (409.41 acres), and Chapter 61B Recreation (338.25 acres) are actively managed by their owners for forestry, agricultural, or recreational use and are in protection but not in perpetuity. The town has the right of first refusal should the landowner decide to sell and change the use of the land.

**Table LU-3: Lands Under Chapter 61**

Chapter Lands		Acres
61	Forestry	694.11
61A	Agriculture	409.41
61B	Recreation	338.25
<b>Total Acres</b>		<b>1,441.77</b>

Table LU-3 shows that 1,441.77 acres in Hubbardston are under Chapter 61 agreements. Lands under special taxation programs are presently managed by their owners for forestry (Chapter 61), agriculture (Chapter 61A), or recreation (Chapter 61B). This means the land is taxed at its forestry, agricultural, or recreational value, not fair market value. The intent of the state laws that authorize these agreements is to encourage productive and extensive land uses.

**TOOL KIT**

The Town should assess and prioritize Chapter 61 lands for possible future acquisition or other protection measures, such as an Agricultural Protection Restriction or a Conservation Restriction. When abutting other conservation areas, such lands may enhance the value of current conservation and recreation land by providing greater ecological services.

### **Water Supply, Aquifers, Recharge Areas, and Water Resources**

LUM-5 Map in the Land Use Appendix depicts Hubbardston's water supply, aquifers, and recharge areas. This map includes streams, rivers, lakes, ponds, and reservoirs; DEP public water supplies, community, and non-community ground water sources; well protection areas; aquifers; and FEMA flood zones.

Hubbardston is part of the Nashua River watershed. The Nashua River watershed covers an area of 538 square miles within 31 communities in Massachusetts and New Hampshire. LUM-6 Map in the Land Use Appendix depicts Hubbardston's water resources, watershed boundaries, drainage sub basins, and state certified vernal pools. These two maps show its rivers, streams, and aquifers that connect Hubbardston to neighboring towns. Every neighboring town sits over the same high and medium-yield aquifers that run through Hubbardston. Hubbardston is served by private well water and septic. [Town of Hubbardston's Sewer Feasibility Study 2011](#)

#### **TOOL KIT**

Bylaws, ordinances, and regulations (bylaws) can be adopted to better protect a community's water and natural resources. Among them are:

- steep slope and erosion control bylaw
- wellhead and aquifer protection bylaw
- riparian (river) corridor protection bylaw
- low impact development bylaw
- stormwater bylaw

Visit the [Nashua River Watershed Association](#) to learn more.

### **Large Scale Solar Photovoltaic Installations**

Large scale solar ground or roof top mounted systems are allowed in all zoning districts permitted by Special Permit. Large-scale solar projects have seen an increase throughout the state in the past ten years or so due to grants and tax incentives. Community solar has also increased. The scale of solar farms and community solar projects varies from project to project. 6 to 7 acres are typically required for every megawatt (MW) of solar installed. A 5 MW project, for example, would require somewhere between 30 - 35 acres of suitable land.

To site these projects, solar developers need to find landowners with sufficient acreage on a viable parcel of land and communities looking to site community solar projects need to identify land to site these projects which can often be difficult if municipal land is not available. Many communities have sited solar projects on capped landfills. Land lease agreements whereas the solar developer pays the landowner for the use of their land for the solar installation are generally long-term commitments of 15-30 years for the entire lifespan of the project and beyond. In order to successfully interconnect the project, it is important that the land is in proximity to a substation/three-phase power line and requires clear land with no major obstructions and minimal debris.



Hubbardston currently has 6 solar farms sited on a total of 113.6 acres which will occupy land for 15 years or more. Refer to Table LU-4 below and Solar Fields and Gravel Pit Map LUM-5 in Appendix C.

**Table LU-4: Hubbardston Solar Projects**

PROJECT	LOCATION	DEVELOPER/SOLAR OWNER	PARCEL ID	ACRES
Seaboard Solar Holdings LLC	91 Williamsville Rd.	True Green Solar	4-32	15.6
Sun E Hubbardston Solar LLC	20 Pitcherville Rd.	Sun Edison	3-60	50.66
Kearsarge Energy LP	95 Willisamsville Rd	K S Solar Six	4-31	25
978 Solar Development LLC 1	Off Gardner Rd.	Borrego	3-110	2.07
978 Solar Development LLC 2	240 Gardner Rd.	Borrego	3-106	20.3
147 Williamsville Solar 1	147 Williamsville Rd.	Clearwater Energy	4-127	113.6
			TOTAL, ACRES:	113.6

**Quarrying and Earth Removal** Hubbardston allows the removal of stone or earth for the sale or commercial processing, by permit under its “Earth Removal” General Bylaw. Earth Removal permits are good for only two years. Currently there are no active Earth Removal permits in town. There are several known formal gravel pit operations in the community, including one owned by the town, totaling 472.88 acres. See Table LU-5 below and Solar Fields and Gravel Pit Map LUM-5 in Appendix C.

**Table LU-5: Hubbardston Gravel Pits**

PARCEL-ID	ACRES
02-160	240.35
03-056	25.13
03-088	22.10
03-034	48.26
03-036	9.20
03-037	3.37
03-039	13.10
03-080	62.32
03-077	6.30
03-032	42.75
<b>TOTAL ACRES</b>	<b>472.88</b>

Communities often wonder what future land uses will occur if any once a gravel operation ceases to operate. Hubbardston’s Master Plan survey conducted in June 2021 asked participants what top land uses were desired once a gravel pit is no longer in operation. The top 3 choices were:

1. Public Park or playground (46.83%),
2. Solar development (38.49%),
3. Open space protection (38.10%).

The town owned gravel pit on Pitcherville Road is currently under study for use as subsidized senior housing. Hubbardston could consider exploring adaptive reuses of its gravel pit/quarry operations. Below are examples of adaptive reuses in other Massachusetts communities:

- Bolton permitted a 5.96 MV DC solar farm on 26 acres on a [former gravel pit](#).
- An over 55 development was proposed in the Town of Hudson on a former gravel pit operation.
- The town of Concord approved a 274-unit residential development on a 46.6-acre former gravel pit operation.
- The town of Sudbury acquired a former quarry operation and put out an RFP and received 3 bids including a greenhouse operation, a residential development consisting of 300 rental units and 33 senior age restricted condos.
- Saugus conducted a Master Plan Study for proposed uses which included mixed use and open space.

## Section 4 – Existing Land Use Regulations

### Zoning Districts and Analysis

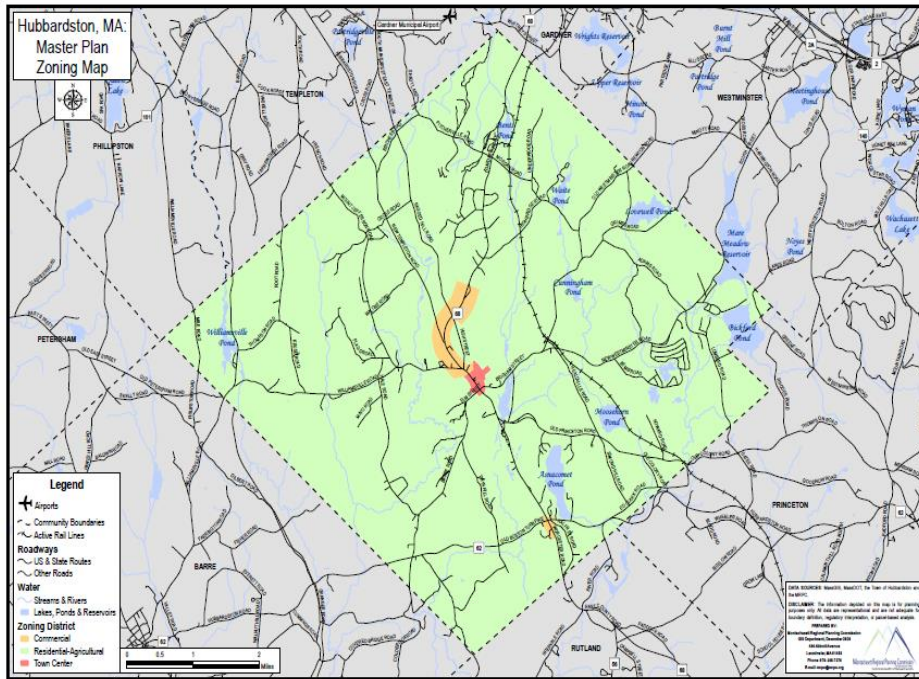
Table LU-6 Dimensional and Zoning Table below, depicts the existing zoning districts that comprise Hubbardston’s zoning bylaw. Currently the Town of Hubbardston has one Residential-Agricultural District; one Town Center District; and two Commercial Districts, both located along Route 68.

One Commercial abuts the Town Center District to the north and ends at the north end of Cutoff Road. The other is a small area located at the intersection of Routes 62 and 68. The Light Industrial District formerly located on the east side of Gardner Road between High Street and Morgan Road and on the west side of Gardner Road between Ragged Hill Road and Pitcherville Road was amended to be included in the Residential-Agricultural District. Light Industrial was removed as a zoning district from the Zoning Map, and light industrial uses were added to allowed use in the Commercial District.

**Table LU-6: Dimensional And Zoning Table**

District	Lot Area	Frontage	Rear/Side Yards	Max Lot Coverage	Max Building Height
Residential-Agricultural	80,000 sf	200'	75'	25%	30'
Town Center	80,000 sf	200'	75'	25%	30'
Commercial	80,000 sf	200'	100'	50%	35'

**Figure LU-1: Existing Zoning Map**



DISTRICT	BY- RIGHT	SPECIAL PERMIT BY PLANNING BOARD
<b>Residential – Agricultural District</b>	<p><b>Intended for personal residence, agriculture, conservation, recreation, and open space.</b></p> <ul style="list-style-type: none"> <li>• Single &amp; 2-family homes</li> <li>• agricultural, conservation, recreation, open space</li> <li>• public and private non-profit educational museums, municipal uses, educational uses</li> <li>• home occupation</li> <li>• guest houses, bed and breakfast, in-law apartments</li> <li>• solar photovoltaic installations</li> </ul>	<ul style="list-style-type: none"> <li>• libraries, health care facilities, public utility facility</li> <li>• country club, tennis club and golf course, commercial greenhouse</li> <li>• multi-family residences up to four family units</li> <li>• radio, television, and communications towers</li> <li>• nursing, convalescent and rest homes, day care centers, kennels</li> <li>• senior residential development (SRD) &amp; open space residential developments</li> <li>• accessory apartments,</li> <li>• outdoor marijuana cultivation establishments</li> </ul>
<b>Town Center District</b>	<p><b>Intended for traditional town center residential activities.</b></p> <ul style="list-style-type: none"> <li>• single &amp; two-family residences</li> <li>• religious uses</li> <li>• conservation or open space areas, recreation &amp; park land, agriculture, nursery, orchards. Sale of farm products, cemetery,</li> <li>• public and private non-profit educational museums, municipal uses, library, government building or facilities, educational uses</li> <li>• guest houses, bed, and breakfast</li> <li>• home occupations</li> </ul>	<ul style="list-style-type: none"> <li>• retail or service establishments,</li> <li>• markets, delicatessen</li> <li>• business and professional offices</li> <li>• outdoor marijuana cultivation establishments</li> </ul>
<b>Commercial District</b>	<p><b>Intended for residential and commercial activities.</b></p>	<ul style="list-style-type: none"> <li>• The Planning Board has authority to grant special permits for by-right uses allowed in the Residential District</li> </ul>

	<ul style="list-style-type: none"> <li>• all uses allowed in the residential district and retail or service establishments (no automobile sales)</li> <li>• markets, restaurants (no drive throughs)</li> <li>• individual business, professional or campaign offices</li> <li>• schools, colleges, libraries, funeral homes, post office, public transit terminal, bank, municipal, government facilities</li> <li>• commercial greenhouses</li> <li>• research labs, light manufacturing, or processing facility</li> <li>• warehouse, storage facilities, construction business, fuel retail distribution business</li> <li>• country clubs, tennis club, golf, amusement/recreation facilities, swimming pool, ice skating arena</li> <li>• private and commercial stable</li> <li>• hospital, health care facility, nursing, convalescent and rest homes, day care center</li> <li>• salerooms and yards for sale of farm, contractor equipment, and freight, transportation terminals, transfer terminals, motor and rail, motor truck yards.</li> </ul>	<ul style="list-style-type: none"> <li>• shopping center or complex of offices, businesses, or retail establishments</li> <li>• motor vehicle service, repair, washing or fuel business.</li> <li>• hotel, motel, inn, campground</li> <li>• sales of new or used motor vehicles.</li> <li>• senior residential development (SRD)</li> <li>• marijuana establishments</li> </ul> <p><b>Light Industrial Uses</b></p> <ul style="list-style-type: none"> <li>• Research labs,</li> <li>• light manufacturing or processing facility,</li> <li>• warehouse</li> <li>• storage facility (no junk vehicles or scrapped metals)</li> <li>• construction business,</li> <li>• enclosed heavy vehicle storage,</li> <li>• and fuel retail distribution</li> </ul>
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**Overlay Districts and Other Land Use Tools**

The Town’s bylaw also allows for overlay districts and other land use tools such as a Flood Plain District; an Aquifer Protection District; and Wireless Communications Overlay District.

**Aquifer Favorability Protection District** – The future growth of the Town of Hubbardston is dependent upon the ability of the town to provide clean drinking water. Areas identified as having a high degree of potential for future development of a municipal water supply need to be protected. The purpose of the Aquifer Favorability Protection District is to limit activities that may occur in areas which have a high degree of potential groundwater yield, and which could pose a threat to the quality or quantity of groundwater that may be available in such areas.

**Estate Lots** – Single family lots in the Residential/Agricultural, Town Center, and Commercial Districts may be created with 150’ of frontage on an existing public way provided the lot area is a minimum of 435,600 sf or 10 acres. And cannot be further subdivided. Dimensional requirements are the same as described for these districts.

**Flood Plain District** - The purposes of the Flood Plain District are to protect the health, safety, and welfare; to protect human life and property from the hazards of periodic flooding; to preserve the natural flood control characteristics and the flood storage capacity of the flood plain; and to preserve and maintain the ground water table and water recharge areas within the flood plain. The Flood Plain District is established as an overlay district to all other districts. All development in this district,

including structural activities, whether permitted by right or by special permit must be in compliance with Chapter 131, Section 40 of the Massachusetts General Laws.

**Open Space Residential Development (OSRD)** - The purpose of an OSRD is to encourage the preservation of open land by providing an alternative pattern of development that offers flexibility and creativity in the design; provides permanent preservation of Open Space, agricultural lands, forest lands and other natural resources to encourage less sprawling development that consumes less open space; maintains traditional new England rural character and land use pattern, economical and efficient streets, utilities and public services; respects natural features; preserves natural views from roadways and provides wildlife corridors and greenways that connect Open Spaces.

**Subdivision Phasing** - No more than fifteen lots or 12.5% of the total number of lots within the approved subdivision, whichever is greater may be built upon for residential purposes in any 12-month period commencing on the date of approval of the subdivision. The purpose of this bylaw is to encourage a steady pace of residential development, provide long-term support to the local building industry, stabilize property values, and facilitate adequate provision of public services.

**Site Plan Approval** – The purpose of the site plan review is to ensure that development proposals are consistent with the environmental and siting objectives of the Town of Hubbardston. Site Plans are approved by the Planning Board.

**Wireless Communications Overlay District** – The purpose of the Wireless Communications Overlay District is to provide installation of wireless communication towers and associated facilities and equipment while balancing the impacts on residential neighborhoods and maintaining and protecting ecological, aesthetic, historical and recreational features of the town. The Town Center District is included in the Wireless Communications Overlay District and particular parcels identified in the map entitled “Wireless Communications Overlay District.”

**Proposed Rural Enterprise Overlay District** – The purpose of this proposed Bylaw is to provide for innovative economic development opportunities for Hubbardston residents. The Bylaw has the potential to benefit the general health and welfare of Town residents and the region by encouraging economic development and open space preservation that fits the rural patterns of land use and development of the Town. The bylaw will also provide opportunities for Hubbardston farmers to supplement their income produced through their farm operations by diversifying their operations to include businesses that may combine agriculture, tourism, outdoor recreation, and other farm related activities. At the time of publication of this document, the Rural Enterprise Overlay District bylaw had not been approved.



**TOOL KIT**

**INVENTORY OF INNOVATIVE PLANNING AND ZONING TOOL**

Although Hubbardston already has many best practices in place, the town can still implement the use of other planning and zoning tools or amend or enhance existing ones.

The table below shows what Hubbardston has in place and what can be done to achieve an optimal level of land use planning and can serve as a “road map” for compliance with the best practices guide.

<b>Planning Tool</b>	<b>In Place</b>
Accessory Apartments	No
Agricultural Protection – Right to Farm	Yes
Community Preservation Act (CPA)	Yes
Design Guidelines	No
Earth Removal	Yes
Form Based Codes	No
43D	No
Green Communities Designation	No
Inclusionary Zoning	No
LID (Low Impact Development)	No
Mixed Use	No
Open Space Residential Development	Yes
Rate of Development (Subdivision Phasing)	Yes
Renewal Energy Bylaw	No
Scenic Roads Bylaw	No
Sign Bylaw	Yes
Site Plan Review	Yes
Solar Bylaw	Yes
Town / Village Area	Yes
Transfer of Development rights (TDR)	No
Water Supply / Wetland Protection	Yes
Wind Energy	No
Wireless Bylaw	Yes

**Water and Sewer**

Hubbardston has been working to develop more sustainable land use practices with a vision to promote more development in the town center while maintaining the rural scenic character of the town. To increase development in the town center, the town will need infrastructure to handle water demands and wastewater discharge. The Town’s 2004 Community Development Plan identified the need for adequate infrastructure including water, sewer, and drainage for retail businesses to locate in the town center and to accommodate existing businesses and residences. In 2011 the town conducted a [public water and sewer feasibility study](#) that provided four wastewater management alternatives:

- 1) Title 5 repairs/upgrades
- 2) Shared Septic Systems

- 3) Decentralized wastewater collection treatment System
- 4) Connection to a centralized wastewater collection system

And three water supply alternatives:

- 1) Individual supply
- 2) Public water surface/groundwater
- 3) Interconnection to nearby community

The town will need to decide on the appropriate wastewater management and water supply systems and explore funding sources that would support existing and future expansion/growth for the town center.

### **5-year Road Maintenance Plan**

The [Town Center Maintenance Plan](#) identifies town center improvements that include roadwork, sidewalks, multi-use lanes, and signage. The estimated work will cost 5.45 million dollars and may be done during FY2020-2024. Funding mechanisms could include MassWorks grants, Chapter 90 funding, and Complete Streets.

### **Town Survey**

The [Town Center Survey](#) was conducted in February 2016 with 340 residents responding.

In the 2016 Town Center Survey, Hubbardston Residents indicated that they would like an active, walkable vibrant town center with improved parking and sidewalks; a center that offers a range of services, and offers more food choices, restaurants, pubs and shops, ice cream shops, and affordable housing options. Beautification improvements that include flowers, greenery and trees while retaining the historic character, small town charm and family friendly atmosphere.

Hubbardston's town center has many key destinations (commercial, civic, educational, churches, recreational) all within a 5-10-minute walk as depicted in the Map below and LUM-7 in Appendix C. Hubbardston can continue with Smart Growth Principles to enhance and improve the Town Center.

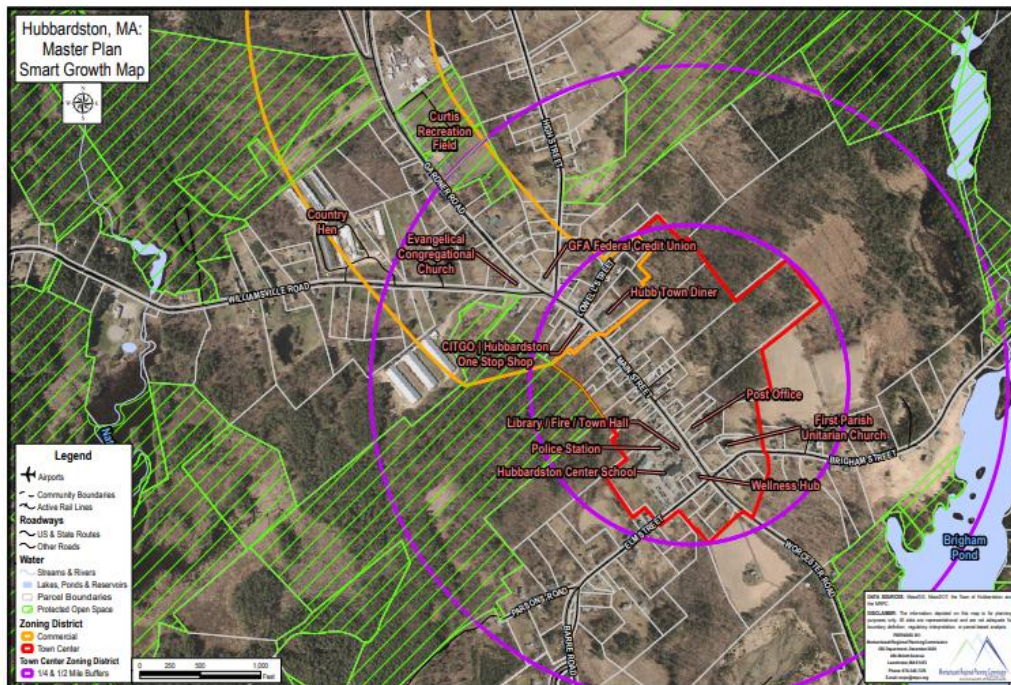
### **Smart Growth (Sustainable Development)**

Smart Growth (or Sustainable Development) is a theory of land development that accepts that growth and development will continue to occur, and so seeks to direct that growth in an intentional, comprehensive way. Its proponents include planners, architects, community activists, and historic preservationists. It also advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use development with a range of housing choices.

Smart Growth emphasizes mixing land uses, increases the availability of a range of housing types in neighborhoods, takes advantage of compact designs, and fosters distinctive and attractive communities. It preserves open space, farmland, natural beauty, and critical environmental areas, strengthens existing communities, provides a variety of transportation choices, makes development decisions predictable, fair, and

cost effective and encourages community and stakeholder collaboration in development decisions.

**Figure LU-3: Smart Growth Zones**



Smart Growth is not “no-growth”, as growth is needed to keep a place economically and culturally vibrant. This means that some land will be needed to accommodate a place’s growth needs, and among the most common Smart Growth techniques, Open Space Residential Development (OSRD) or cluster development is a direct tool of which Hubbardston has taken advantage of.

The Commonwealth has released a set of [Sustainable Development Principles](#) that guide the creation and implementation of state agency policies and programs, as well as investments in land and infrastructure. Municipalities are also asked to modify their planning, regulatory, and funding actions to achieve consistency with the principles.

The state's Sustainable Development Principles include promoting clean energy, in the form of energy efficiency and renewable power generation, to reduce greenhouse gas emissions and consumption of fossil fuels. They also encourage the creation of "pedestrian-friendly" districts and neighborhoods that mix commercial, civic, cultural, educational, and recreational activities with parks and homes. Regarding housing, the principles call for building homes "near jobs, transit, and where services are available. Table LU-5 below shows how Hubbardston’s zoning districts correlate with Smart Growth Principles. [Click here](#) to learn more about the state’s 10 Sustainable Development Principles.

**Table LU-8 Smart Growth Principles**

<b>Sustainable Development Principles</b>	<b>Hubbardston Residential</b>	<b>Hubbardston Town Center</b>	<b>Hubbardston Commercial</b>
Concentrate Development / Mixed Uses	Yes (OSRD) No mixed use	Yes, but improve. No mixed use	Yes, but improve. No mixed use
Advance Equity	No inclusionary zoning		
Make Efficient Decisions	Improve	Improve	Improve
Protect Land and Ecosystems	Yes	Yes	Yes
Use Natural Resources Wisely	Yes	Yes	Yes
Expand Housing Opportunities	No inclusionary zoning	No inclusionary housing	n/a
Provide Transportation Choice	Promote/enhance bicycle and walking opportunities		
Increase Job & Business Opportunities	n/a	Yes – expand opportunities	Yes – expand opportunities
Promote Clean Energy	Y	Y	Y
Plan Regionally	Y	Y	Y

**Section 4: Build-Out Potential**

An environmental and development characteristics analysis involves two phases: mapping followed by quantification of development. In order to reach accurate results, it is crucial to have the necessary geographical data as well as skillful Geographic Information Systems (GIS) staff to perform the initial phase of the analysis. To conduct the analysis, current parcel data from the Town of Hubbardston was utilized, as well as current Zoning. Additionally, environmental and land use data was provided by MassGIS, the state GIS agency.

Environmental data is a key component of the development potential analysis. Certain environmental constraints are considered inappropriate for development and can be defined as “Absolute Constraints” or “Partial Constraints” for the purposes of the development potential analysis.

- **Absolute constraints** are defined as water (as coded by the Land use data), 100 Foot DEP (Department of Environmental Protection), RPA (River Protection Act), Buffers, slopes greater than 26 percent, and Permanently Protected Open space.
- **Partial Constraints** are defined as FEMA 100 and 500-year Flood Zones as well as DEP Wetlands.

Absolute Constraints are completely unsuitable for development, while partial constraints could be developed if pursued in an appropriate manner. Once the constraints have been determined and defined, the next step is to identify lands that have already been developed. Based on MassGIS Land use data, the categories that are included in “Developed Lands” are active/passive/water recreation, residential, commercial, industrial, transportation, waste disposal, power lines, cemeteries, and urban public/institutional.

The final category that is determined is “Future Developable Lands”. GIS tools are utilized to determine what has potential for development, considering all of the constraints and currently developed lands. The result is a new category indicating lands that are developable without any existing development or constraints.

The Development Limitation with Zoning Map LUM-8 in the Land Use Appendix of this report depicts all these data categories (Absolute Constraints, Partial Constraints, Developed Lands, and Future Developable Lands) and provides information for local officials to identify the location and current zoning of future developable lands. GIS tools offer additional useful information by calculating the acreage for each category by zoning district. The data provided by the GIS phase of the build-out analysis is then given to the planning staff or planning board who further investigates the future developable lands within the given zoning districts and provides recommendations for development opportunities. The Development Potential Map LUM-9 in Appendix C depicts all the data categories and applies the zoning to the map.

**Environmental And Development Potential**

Table LU-9 and Figure LU-4 display information on existing conditions in Hubbardston quantifying acres of land by zoning districts divided into four categories: Developed, Undevelopable, Developable Land and Developable with Partial Constraints.

**Figure LU-4: Existing Development Potential- Townwide**

- More than 13,555 acres or 50 % of the land in Hubbardston is **undevelopable** with absolute constraints.
- 9,787 acres or 37% is **developable with partial constraints**.
- 2,168 acres or 8% percent is already **developed**.
- 1,273 acres or 5% is **developable with no constraints** and is in the residential district.

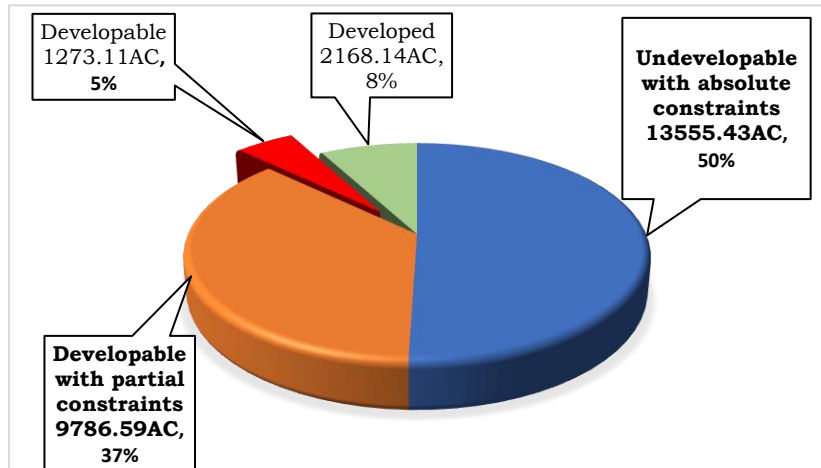


Table LU-9 provides a further breakdown of existing conditions by Zoning Districts. LUM-8 in the Land Use Appendix depicts development limitations and LUM-9 depicts development potential.

**Table LU-9: Hubbardston Existing Conditions by Zone**

Zone code	Category	ACRES	PCT
Commercial	Developed	89.33	0.33%
Commercial	Absolute Constraints	88.32	0.33%
Commercial	Developable W Partial Constraints	163.95	0.61%
Residential-Agricultural	Developed	2,045.24	7.64%
Residential-Agricultural	Absolute Constraints	13,464.21	50.27%
Residential-Agricultural	Developable W Partial Constraints	9,591.83	35.81%
Residential-Agricultural	Developable W No Constraints	1,273.11	4.75%
Town Center	Developed	33.56	0.13%

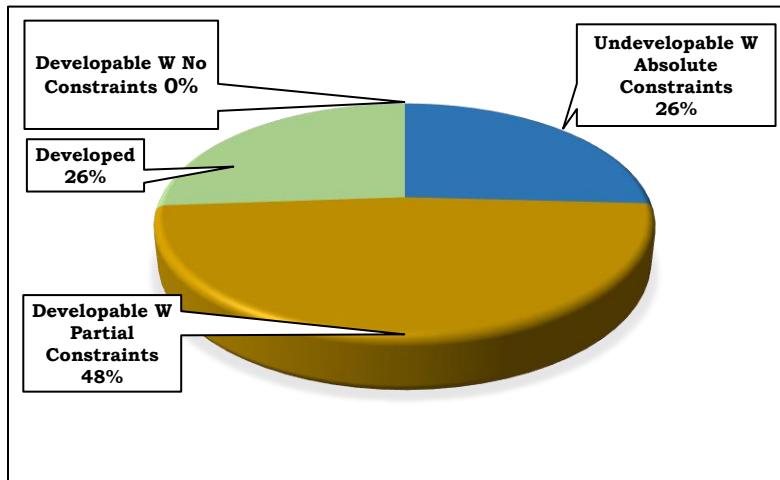


Town Center	Absolute Constraints	2.90	0.01%
Town Center	Developable W Partial Constraints	30.80	0.12%
<b>TOTAL</b>		<b>26,783.26</b>	<b>100.00%</b>

**Commercial**

A total of 341 acres is zoned commercial. 89 acres have been developed, 88 acres are undevelopable, and 164 acres are developable with partial constraints. The Commercial District has **no** available land available for development that is without constraints.

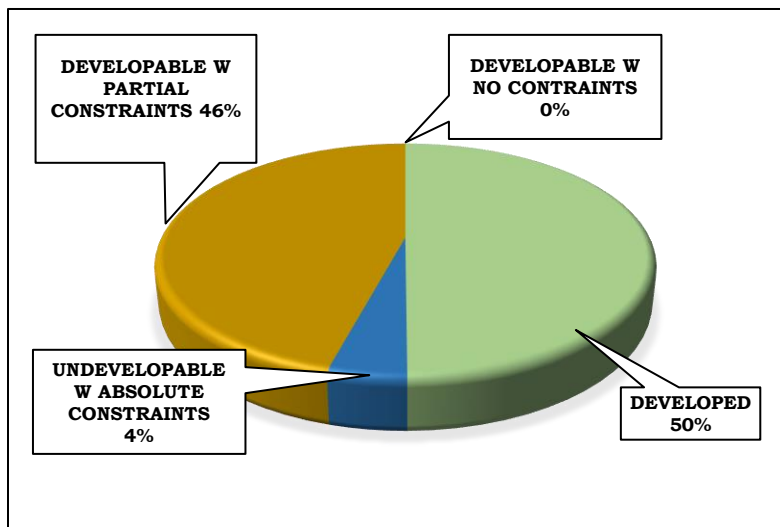
**Figure LU-5 : Commercial Zone Development Potential**



**Town Center**

A total of 36.47 acres is in the Town Center zone. 33.56 acres has been developed, 2.90 acres is undevelopable, and 30.80 acres is developable with partial constraints. The Town Center District has **no** available land for development that is without constraints.

**Figure LU-6: Town Center Zone Development Potential**



**Residential**

A total of 25,107.27 acres is zoned Residential- Agricultural. 2045.24 acres have been developed, 13,464.21 acres are undevelopable, and 9591.83 acres is developable with partial constraints. The Residential-Agricultural District has 1,273.11 acres of available land to be developed that is without constraints.

**Table LU-10: Residential Zone Development Potential**

Zone code	Category	ACRES	PCT
Residential-Agricultural	Developed	2,045.24	3.95%
Residential-Agricultural	Absolute Constraints	13,464.21	26.00%
Residential-Agricultural	Developable W Partial Constraints	9,591.83	18.52%
Residential-Agricultural	Developable W No Constraints	1,273.11	<b>2.46%</b>

**TOOL KIT**

The Residential-Agricultural District has 1,273.11 acres available land to be developed without constraints. That means an estimated residential buildout under current zoning could mean an additional 693 additional single-family homes (80,000 SF lots) or 127 Estate Lots (10-acre lots). This is an estimate and does not account for dimensional zoning requirements, or accommodating roads, driveways, utilities, septic, and water.

It is likely that the Commercial and Town Center Districts cannot be further developed due to environmental constraints such as water, 100 Foot DEP (Department of Environmental Protection), RPA (River Protection Act), buffers, slopes greater than 26 percent, and Permanently Protected Open space. These Absolute Constraints are completely unsuitable for development.

Of the 26,783.26 total acres in Hubbardston 9,786.59 or 37% has partial constraints which are defined as FEMA 100 and 500-year Flood Zones as well as DEP Wetlands. Partial constraints could be developed if pursued in an appropriate manner.

The Town of Hubbardston can consider:

- Zoning amendments that would allow greater density in the Town Center and/or Commercial Districts.
- Allow mixed uses and other appropriate uses.
- Expand Town Center and Commercial Districts by rezoning adjacent residential-agricultural district.
- Analysis existing uses whether they are appropriate.
- Explore redevelopment and infill opportunities in these districts.

**Needs**

Hubbardston is highly reliant on its residents to fund the town’s annual budget because of a shortage of light industrial and commercial development as well as the amount of state-owned land. This problem is compounded by a shortage of developable land zoned for industry and business that development is without restraints. The development of its remaining commercially zone land may prove difficult, making the identification of new development opportunities vital, and the intensification of business uses in the

town center area. Both avenues should be pursued as strategies to increase the highest and best use of commercial areas.

### **Section 5 – Land Use Goals & Actions**

Land use goals and policies are largely regulatory, and policy oriented to preserve the elements and features that contribute to Hubbardston’s New England rural town character. The majority of the town is zoned residential/agricultural with a small-town center and commercial along Worcester Road (Route 68) and the Intersection of Route 68 and Route 62. Due to large lot and frontage requirements a small retail/social center exists with several businesses located away from the center.

There are 5 main goals that have been identified to encourage the preservation of the Town’s assets and focus on new development in the Town Center and commercial areas which supports the town’s commitment to sustainability while retaining Hubbardston’s New England rural town character.

#### **Vision**

*Promote a sense of community and preserve natural and man-made features that contribute to Hubbardston’s rural and historic character while ensuring that housing opportunities are available for a broad range of people and supporting commercial and industrial growth that will fit in Hubbardston and contribute to the community’s quality of life and fiscal stability.*

#### **Goal LU1: Preserve Hubbardston’s Current Land Uses: Open Space, Forestry, Agriculture**

- LU1-1 Continue to work with various public and private agencies to protect lands of conservation interest that are not yet permanently protected.
- LU1-2 Assess and prioritize Chapter 61 lands for possible future acquisition or other protection measures, such as an Agricultural Protection Restriction (APR) or a Conservation Restriction (CR).
- LU1-3 Explore bylaws, ordinances, and regulations (bylaws) and other initiatives/programs to preserve these precious lands.

#### **Goal LU2: Explore Bylaws, ordinances, and regulations (bylaws) to better protect Hubbardston’s water and natural resources.**

- LU2-1 Consider creating specific bylaws such as: a local wetland bylaw, steep slope and erosion control bylaw, riparian (river) corridor protection bylaw, low impact development bylaw.

**Goal LU3: Explore alternatives that enable higher density, mixed use, walkable and economically drivers near/within town center while preserving the rural qualities of outlying areas.**

- LU3-1 Develop Architectural Design Guidelines for the Town Center
- LU3-2 Explore housing alternatives in the Town Center
- LU3-3 Decide on appropriate wastewater management and water supply systems and explore funding sources that would support existing and future expansion/growth for the town center. Funding sources could include MassWorks grants.
- LU3-4 Analyze existing and new allowed uses to make sure they are appropriate for a town center
- LU3-5 Explore redevelopment, readaptation, and infill opportunities to enhance the town center

**Goal LU4: Support expansion of commercial and industrial uses within existing zoned area to improve the town's long term financial sustainability and expanded tax base and provide services to residents and continued viability and support for businesses.**

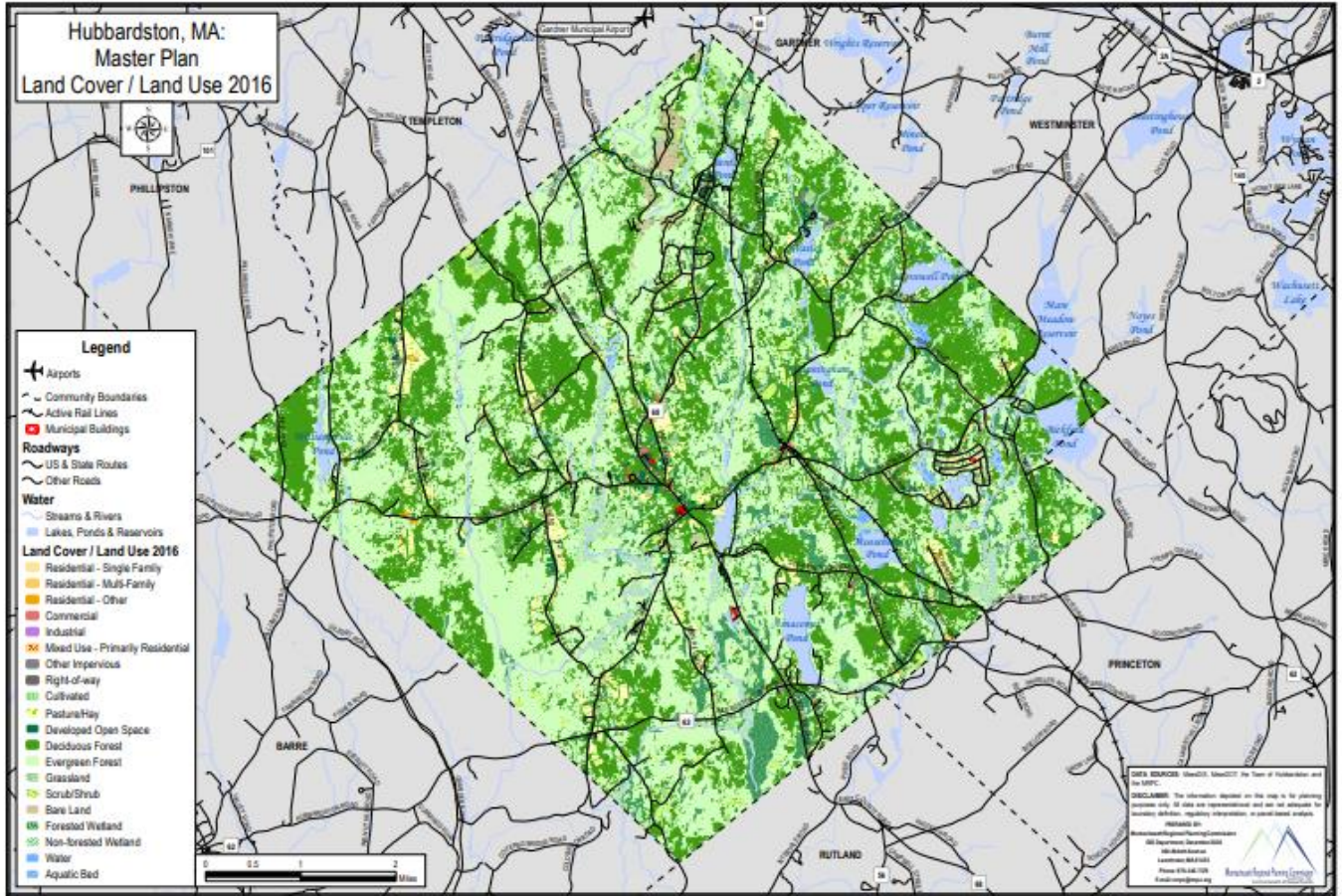
- LU4-1 Explore zoning alternatives or expansion of the commercial districts that enable higher density, economically drivers in the commercial district
- LU4-2 Explore existing uses and new uses that are appropriate and highest and best use of the district

**Goal LU5: Increase affordable housing in Hubbardston that provides housing choices for low income, seniors, disabled, young professionals, empty-nesters, and young families.**

- LU5-1 Explore inclusionary zoning
- LU5-2 Increase stock of multi-family: duplexes, town houses, in-law/accessory apartments, small house developments

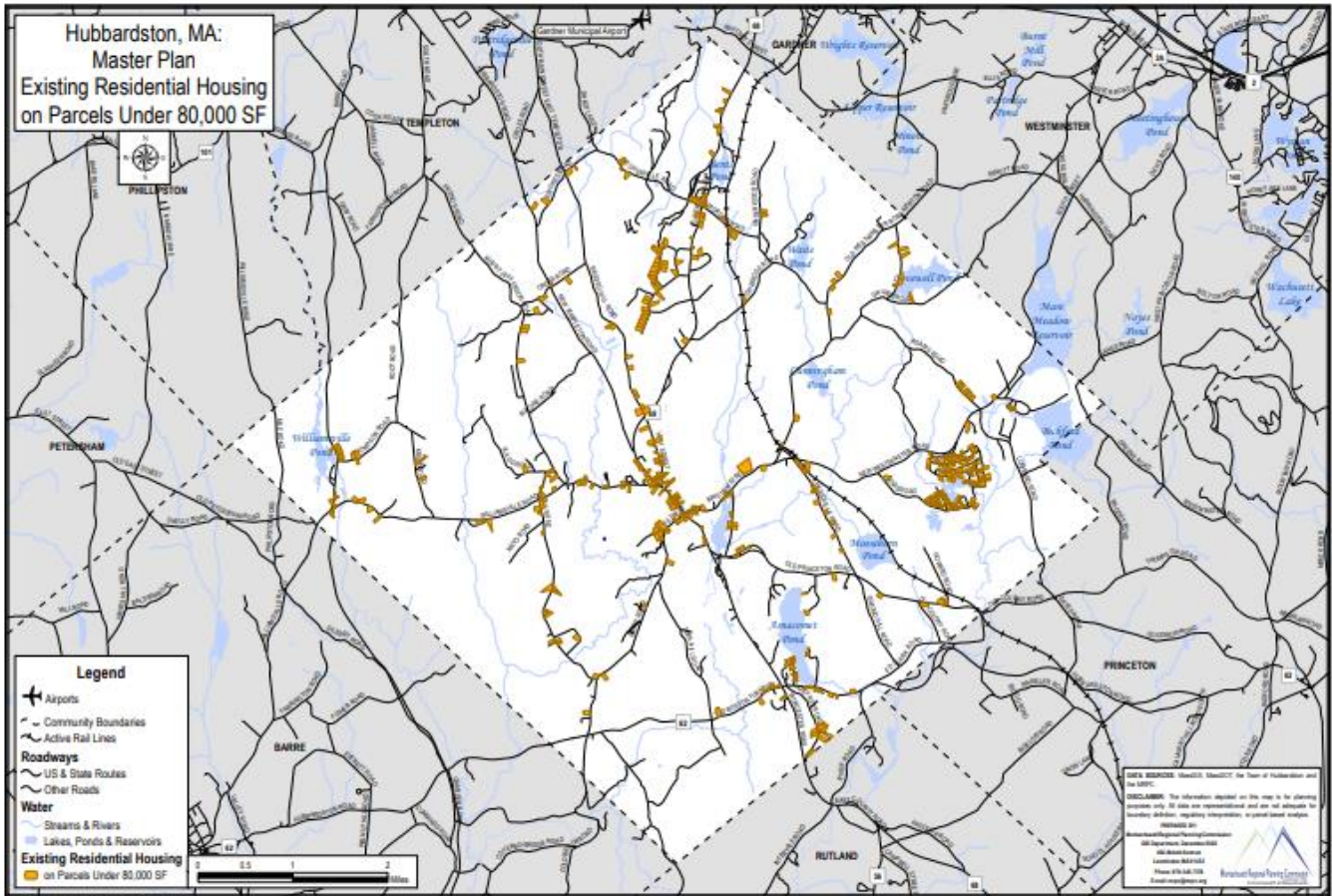
### Land Use Appendix - Hubbardston Land Use Maps

#### LUM 1 - Land Cover / Land Use

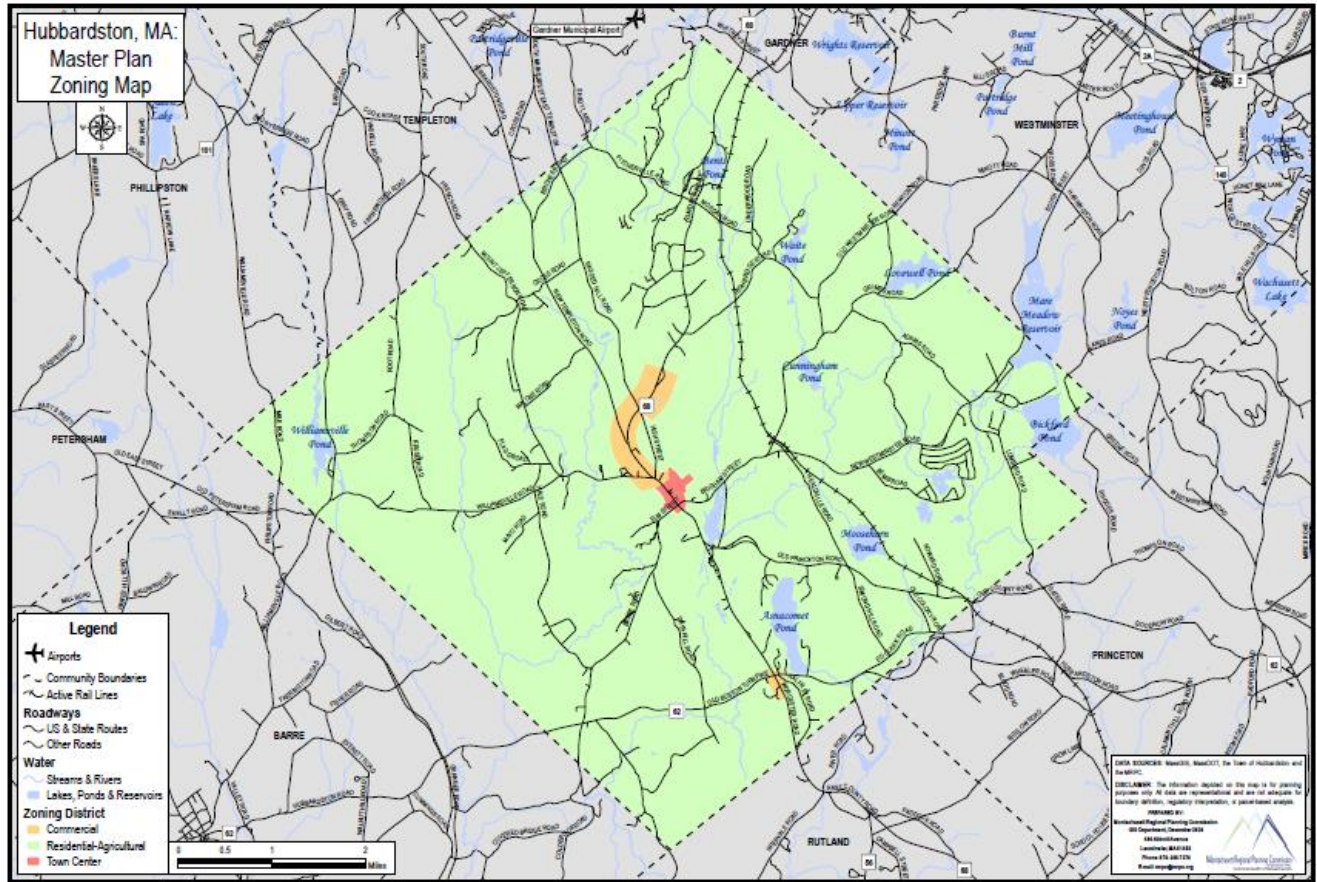




**LUM 2 – Residential on Lots Under 80,000 Square Feet**

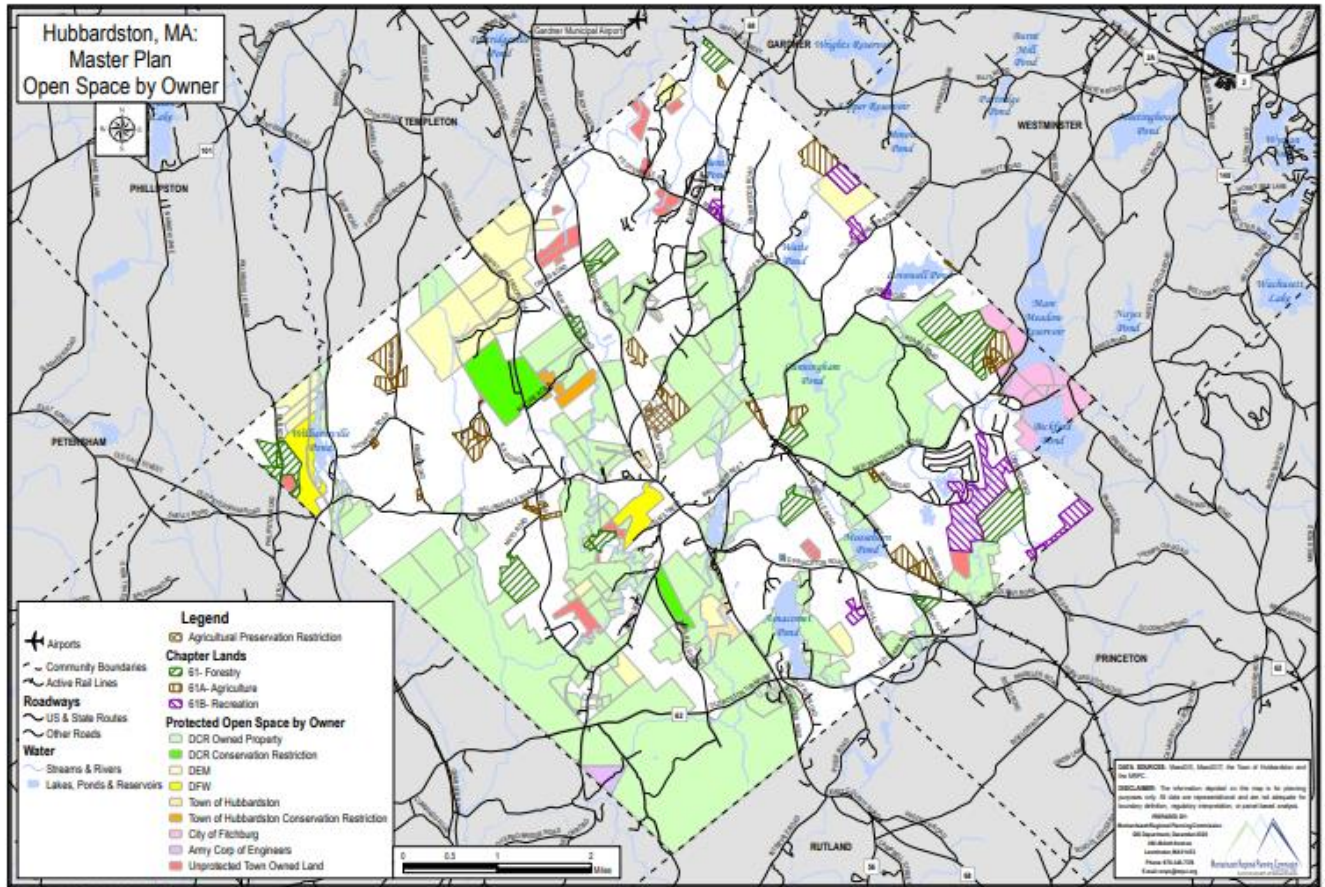


### LUM 3 – Zoning Map

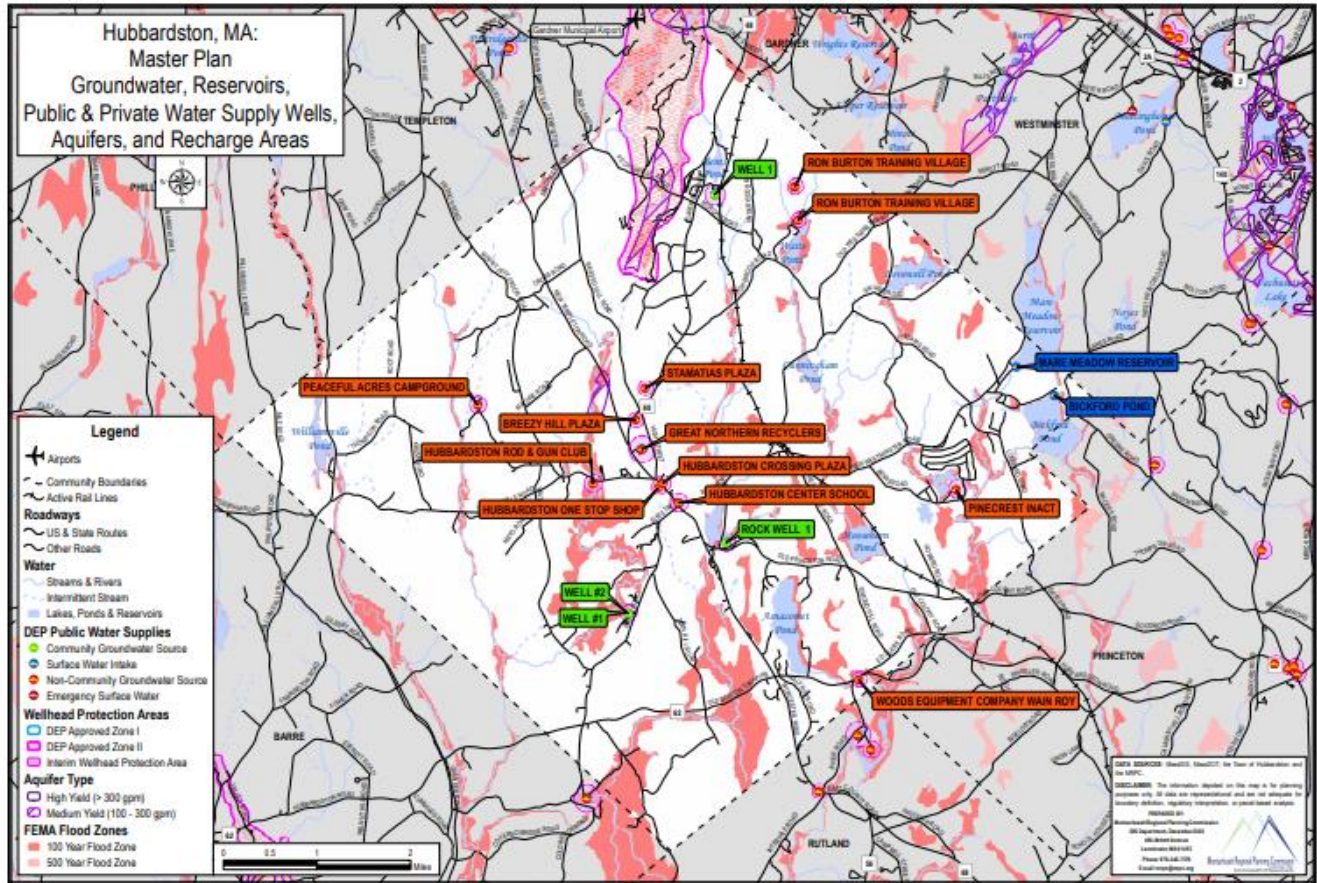




### LUM 4 - Open Space by Owner

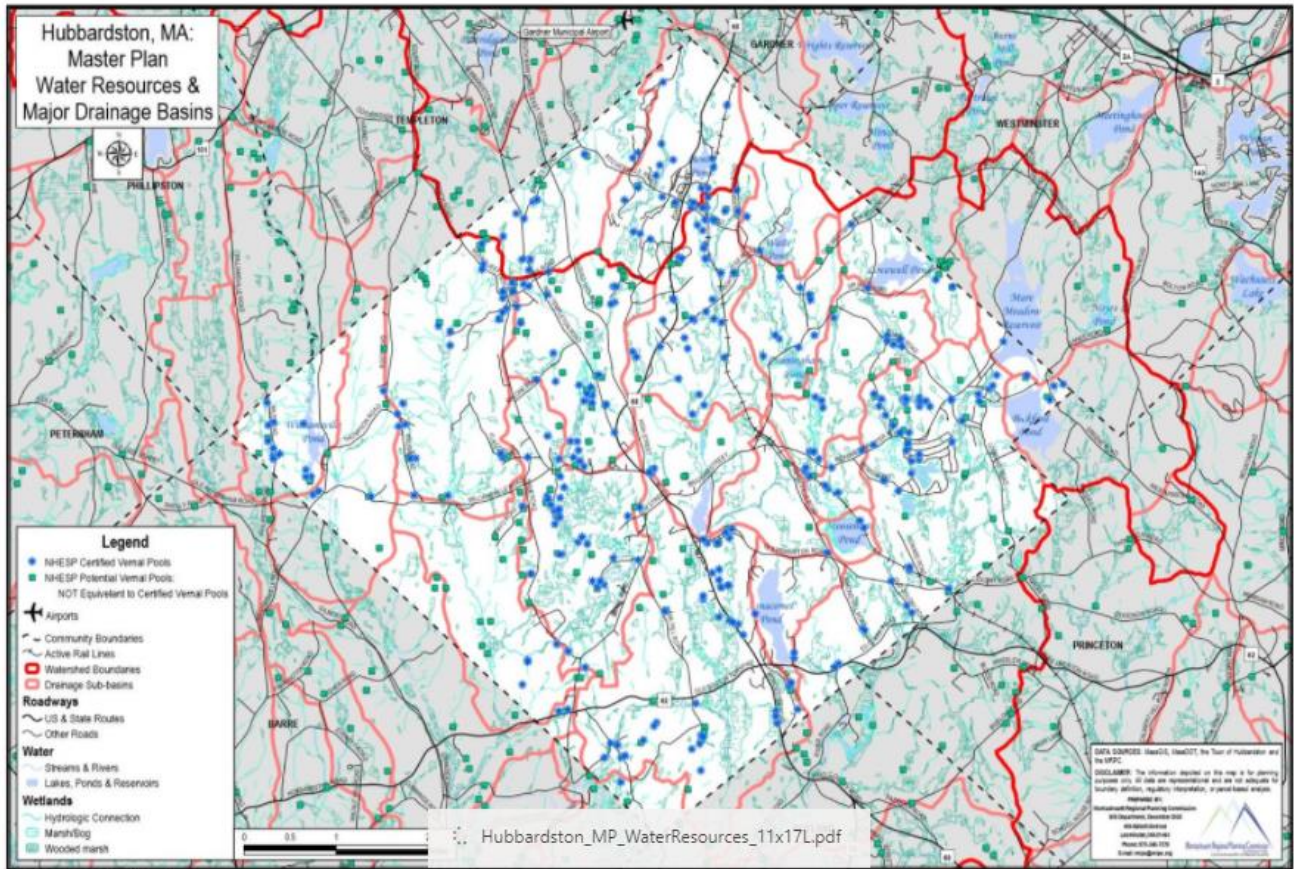


### LUM 5 - Water Supply, Aquifers and Recharge Areas



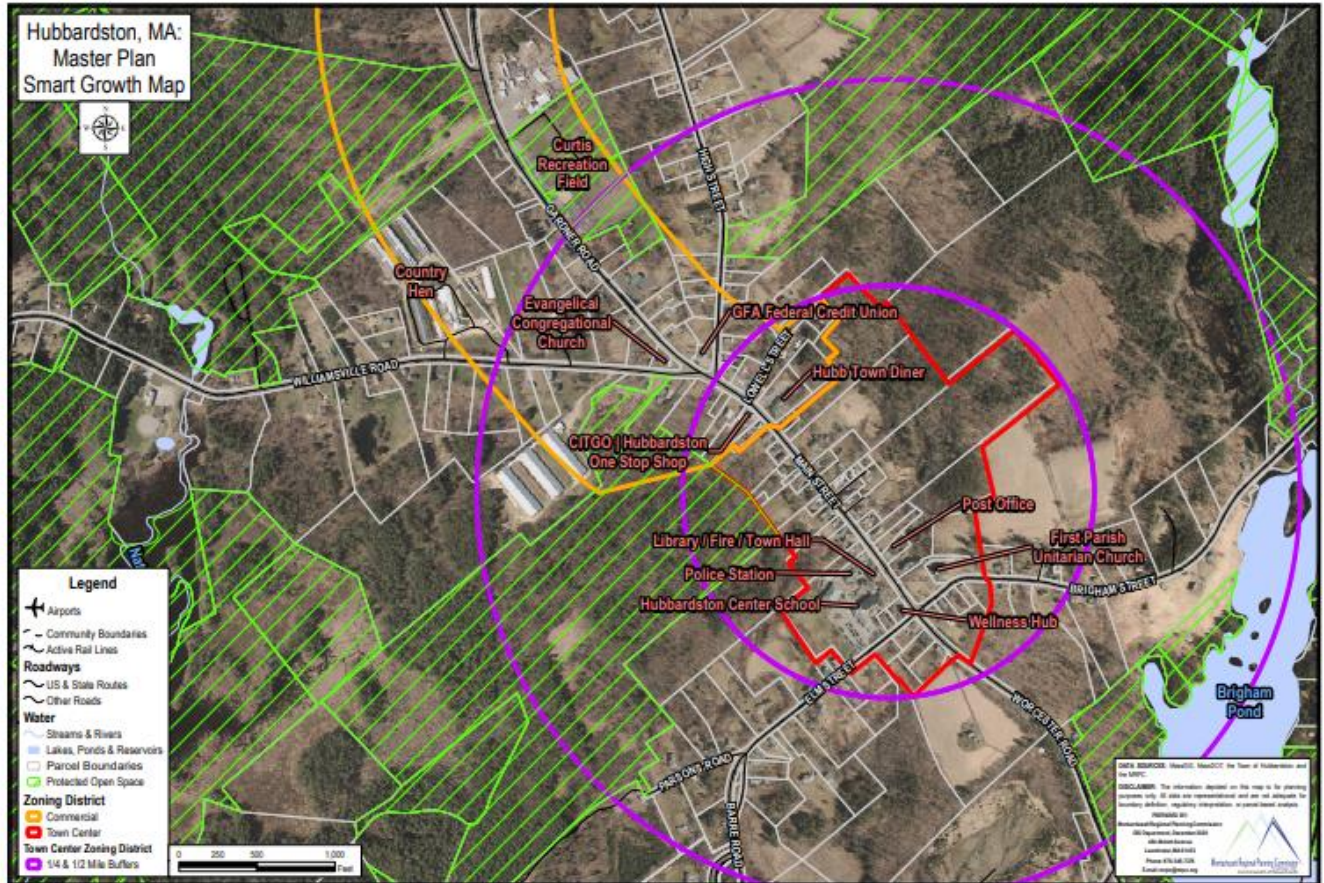


### LUM 6 – Water Resources and Major Drainage Basins

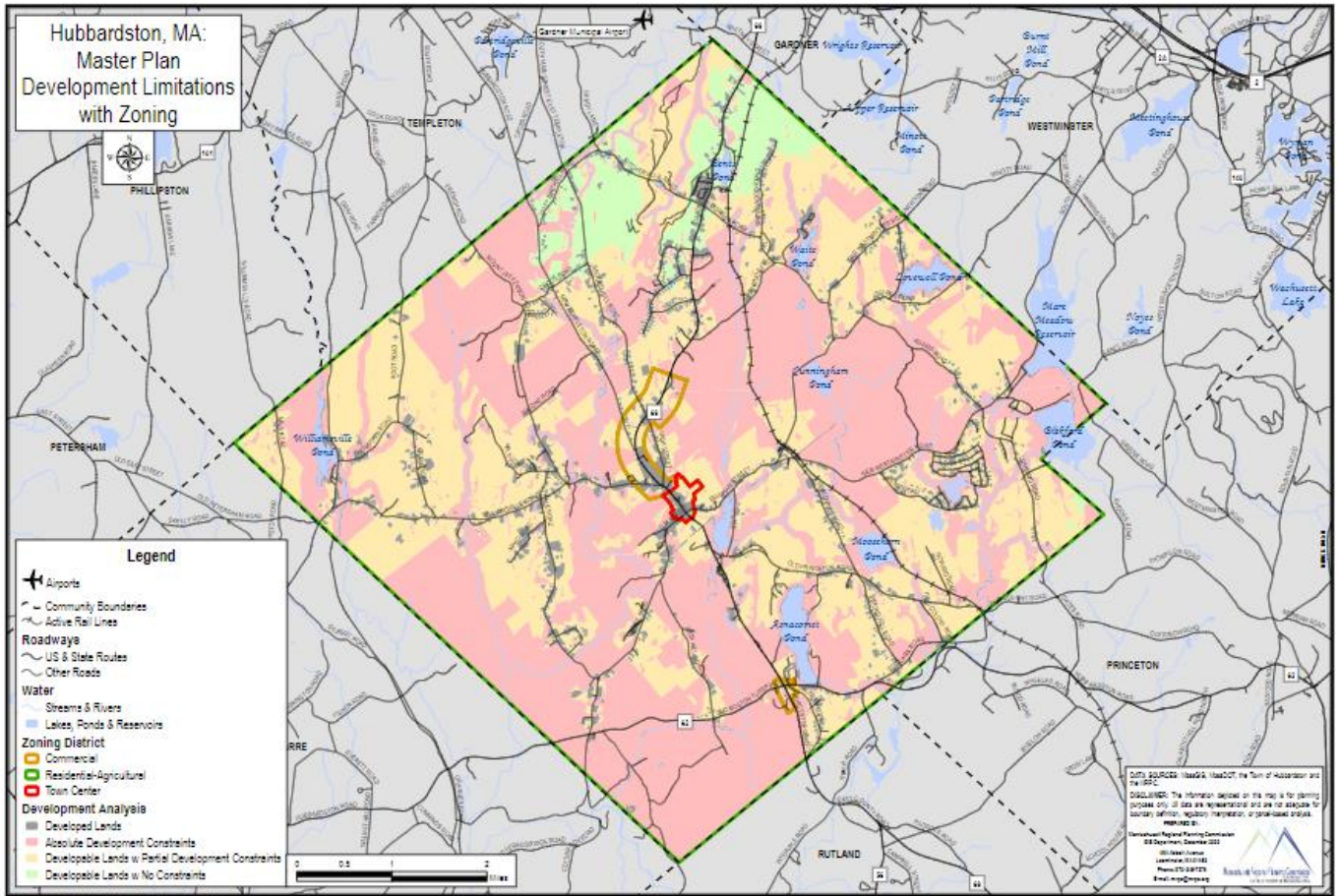




### LUM 7 - Town Center – Smart Growth



### LUM 8 – Development Limitations with Zoning





### LUM 9 – Development Potential

