

## Chapter Two: A Snapshot: The Partnership Region in Focus

While many rural areas across the U.S. have been lost to suburban development, the 21-town region of western Franklin and northern Berkshire Counties remains relatively intact and its forested backdrop largely un-fragmented. From an ecological perspective, the region is a convergence of different types of forests, with remarkably high biodiversity for an area its size. The Northern Berkshires and Hilltowns region also has a rich history of human interaction with the land – homeland for millennia to Indigenous Peoples, supplying them with food, water and natural resources – and in recent centuries, home to colonists, farmers, foresters, trades people and hosts to outdoor enthusiasts and tourists. This natural diversity and human history, coupled with the educational resources that are available, provide an opportunity for research and innovation that can be instructive for many other rural areas. At the same time, the region’s resources and sense of place provide a backbone for what can be a sustainable, vital rural economy into the future.

### History

The region’s history is closely tied to its natural resources. Indigenous Peoples occupied the area since the retreat of the glaciers approximately 12,000 years ago, cultivating the valleys and using the forested highlands for fishing and hunting. European settlers later cleared forests for farming and timber and established sawmills and other mills along the regions’ waterways. As more land opened up in The West, especially after the opening of the Erie Canal in 1825, and regional agriculture declined, the forests slowly reclaimed much of the farmland, and today the region is approximately 83% forested.

Working farms, however, remain a vital part of the region’s identity and economy. The acreage being farmed has declined in both Berkshire and Franklin Counties in recent years, but while Berkshire County lost farms, the number of farms in Franklin County actually increased by 50 in the five years ending 2017.<sup>1</sup>

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<sup>1</sup> USDA National Agricultural Statistics Service.  
[https://www.nass.usda.gov/Publications/AgCensus/2017/Full\\_Report/Volume\\_1\\_Chapter\\_2\\_County\\_Level/Massachusetts/](https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1_Chapter_2_County_Level/Massachusetts/)

### Acres of Operated Farmland

Region	2012	2017	Percent change
Berkshire County	61,656	58,647	-4.9
Franklin County	89,772	88,247	-1.7
Massachusetts	523,517	491,653	-6.1

### Number of Farm Operations

Region	2012	2017	Percent change
Berkshire County	525	475	-9.5
Franklin County	780	830	+6.4
Massachusetts	7,755	7,241	-6.6

The construction of the Hoosac Tunnel through the Hoosac Range between 1850 and 1875 created a railroad link between Boston and Albany, spurring large-scale industrial development in several communities within the region. Manufacturing continues to be an important sector in the regional economy, though a declining one. Factory closings in recent decades have spurred revitalization and reuse efforts of former industrial buildings such as the Sprague Electric complex in North Adams, which now houses the Massachusetts Museum of Contemporary Art (MassMoCA), one of the largest centers for contemporary visual and performance art in the country. MassMoCA is just one example of many cultural offerings found throughout the region.

In 1914, the opening of the Mohawk Trail as the State's first scenic tourist route made the region a popular destination during the auto-touring days of the 1950s. The 21-town region now includes four State-designated scenic byways: Mohawk Trail (Route 2) (also one of America's Byways®); Mount Greylock; Route 112; and Route 116. These byways provide travelers access to the many historical, natural, cultural, and recreational resources of the region.

## Demographics

### Population

As of 2020, the 21-town Partnership region is home to just under 50,000 residents, with a population density of 87 people per square mile, far lower than the state population density of 884.<sup>2</sup> The median town population is 1,185, ranging from 118 residents in Monroe, to 12,961

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<sup>2</sup> U.S. Census Bureau, 2020 Decennial Census.

residents in North Adams<sup>3</sup>, the only city in the Woodlands Partnership Region (town by town demographic information can be found in Appendix C). The population in the 21-town region is declining. Total population declined by 3.6% between 2010 and 2020, following a decline of 4.9% between 2000 and 2010.<sup>4</sup> By 2040, the total population for the region is projected to decline by an additional 5%.<sup>5</sup>

**Table 2-1: 21-Town Demographic Summary Compared the State**

	<b>21-Town Region</b>	<b>Massachusetts</b>
2020 Total Population	<b>49,088</b>	7,029,917
Population Change 2010 - 2020	<b>-1,848</b>	482,288
Percent Population Change 2010 - 2020	<b>-3.6%</b>	7.4%
Population Density (population per square mile)	<b>87</b>	884
Median Population Age	<b>39.3 – 52.6</b>	39.5
Percent of Population 65 and Older	<b>24%</b>	13.5%
Per Capita Income	<b>\$36,098</b>	\$46,121

Source: 2010, 2020 U.S. Census; Esri

### Age

The 21-town region has an older population than the state as a whole. The median population age for each town ranges from 39.3 in Williamstown to 52.6 in Ashfield and Hawley.<sup>6</sup> Nineteen of the 21 towns have a median population age over 45, which is older than the median age for the State (39.5), and 24% of residents in the 21-town region were 65 or older as of the 2020 U.S. Census.<sup>7</sup> However, the 21-town region also has a high percentage (15%) of residents between the ages of 15 and 24.<sup>8</sup> This is likely due largely to the presence of two colleges in the region: Williams College in Williamstown, a private liberal arts college founded in 1793 that currently enrolls approximately 2,200 undergraduates; and the Massachusetts College of Liberal Arts (MCLA) in North Adams, a state college enrolling close to 1,800 undergraduates and over 400 graduate students. Of the residents in the region between the ages of 15 and 24, 61% live in the towns of North Adams and Williamstown.<sup>9</sup> Residents between the ages of 0 and 4 make up only 4% of the region's population.<sup>10</sup>

<sup>3</sup> Ibid.

<sup>4</sup> U.S. Census Bureau, 2010 and 2020 Decennial Census.

<sup>5</sup> UMass Donahue Institute MassDOT Vintage 2018 Population Projections. September 2018. (UMDI-DOT V2018).

<sup>6</sup> U.S. Census Bureau, 2020 Decennial Census.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>9</sup> U.S. Census Bureau, 2020 Decennial Census.

<sup>10</sup> Ibid.

## Race

The majority of residents in the 21-town region are white: 89.1% of the population identified as white during the 2020 census.<sup>11</sup> 3.6% of residents identified as Hispanic, 1.7% as Black, 1.6% as Asian, 0.18% as American Indian, and 6.2% of the population identified as two or more races.<sup>12</sup>

## Poverty and Environmental Justice Populations

In the 21-town region, an average of 9% of households were living below the poverty line in 2020.<sup>13</sup> This rate is slightly lower than the Massachusetts average of 9.4%. Poverty is not equally distributed throughout the region, however, but is concentrated in certain towns and areas. North Adams currently has the highest household poverty rate (19%) and Conway the lowest (1.9%).

Nine towns in the 21-town region contain Environmental Justice (EJ) populations (**see map below**). EJ populations are identified by census block groups and meet one or more of the following criteria: (1) Income (the annual median household income is not more than 65 per cent of the statewide annual median household income), (2) English Isolation (25 per cent or more of households lack English language proficiency), or (3) Minority (minorities comprise 40 per cent or more of the population, or minorities comprise 25 per cent or more of the population and the annual median household income of the municipality in which the neighborhood is located does not exceed 150 per cent of the statewide annual median household income).<sup>14</sup>

EJ populations are the focus of the Executive Office of Energy and Environmental Affairs' Environmental Justice Policy, through which the EEA strives to integrate environmental, energy, and climate justice considerations into its policies, programs, and strategies.<sup>15</sup>

**Table 2-2: 2020 Environmental Justice Populations in the 21-Town Region**

<b>Municipality</b>	<b>EJ Criteria</b>	<b>Total Population</b>	<b>Population in EJ Block Groups</b>	<b>Percent of Population in EJ Block Groups</b>
Adams	Income	8,125	3,775	46.5
Buckland	Income	1,950	1,049	53.8

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<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> U.S. Census Bureau, 2020 Decennial Census.

<sup>14</sup> MassGIS Data: 2020 Environmental Justice Populations. June 2021. <https://www.mass.gov/info-details/massgis-data-2020-environmental-justice-populations>

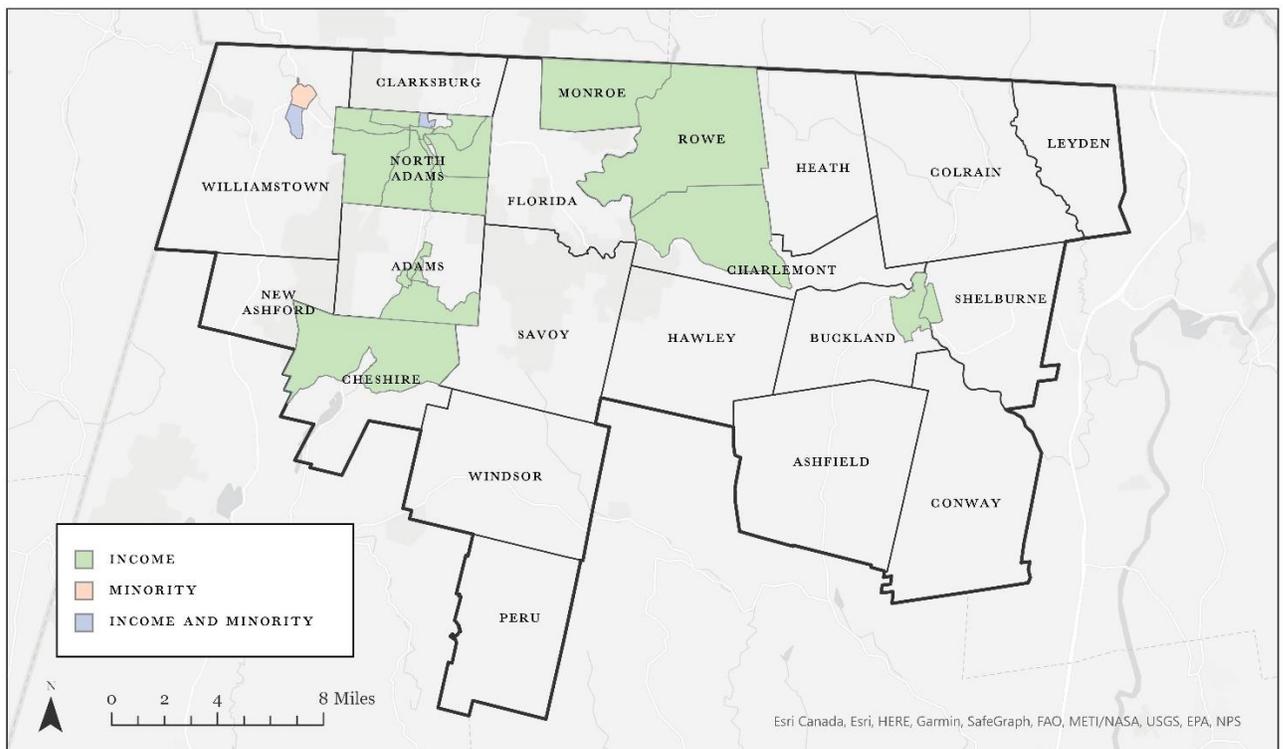
<sup>15</sup> Environmental Justice Policy. June 2021. <https://www.mass.gov/service-details/environmental-justice-policy>

Charlemont*	Income	1,984	1,052	53.0
Cheshire	Income	3,159	1,315	41.6
Monroe*	Income	1,052	1,052	100.0
North Adams	Income, Minority	12,959	11,128	85.9
Rowe*	Income	1,052	1,052	100.0
Shelburne	Income	1,649	786	47.7
Williamstown	Income, Minority	7,514	3,246	43.2

Data from 2020 Environmental Justice Populations Fact Sheet. MA EJ 2020 Municipal Statistics.

\*Note: Monroe, Rowe, and a portion of Charlemont are treated as one Block Group.

### Environmental Justice Populations in the Woodlands Partnership Region

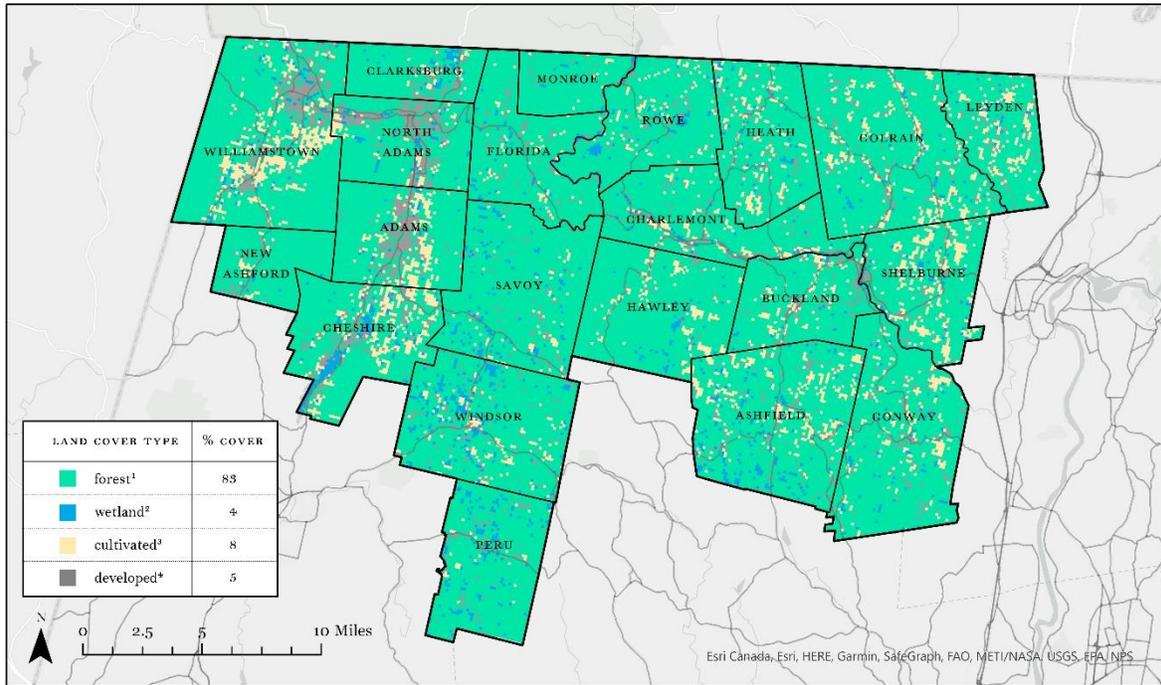


### Land Use

The 21-town region comprises approximately 362,105 acres.<sup>16</sup> Forests are the predominant land use, encompassing around 83% of the region. Agricultural land makes up roughly 8% of the

<sup>16</sup> All data in the Land Use section gathered from MassGIS (Bureau of Geographic Information), Commonwealth of Massachusetts EOTSS. Layers: Land Cover / Land Use (2016); Protected and Recreational Open Space (2021).

region, and wetlands cover about 4%. Residential uses comprise approximately 4.5% of the region, while commercial and industrial uses comprise only 0.5%.



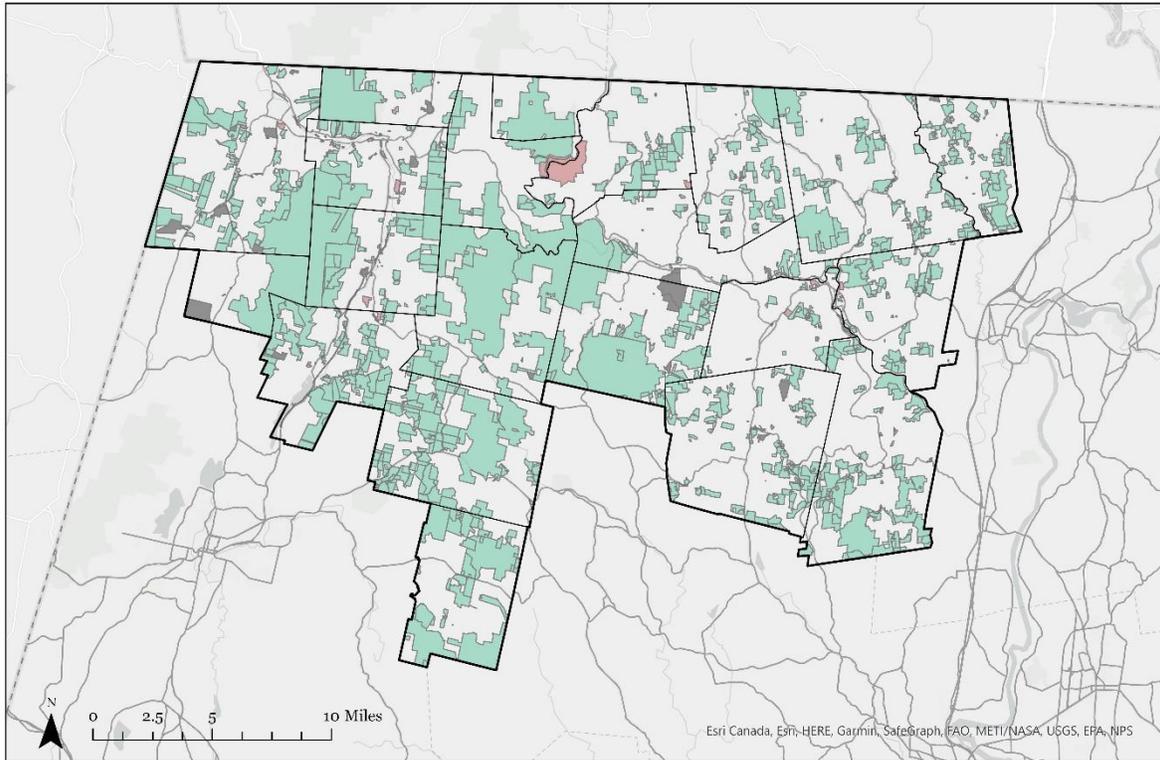
LEGEND	Scale: 1:300,000
	MTWP REGION
	TOWN BORDER
	MAJOR ROAD

### Land Cover Types in the MTWP Region

Land cover data from MassGIS Land Cover / Land Use tiles (2016)

1. Includes evergreen forest, deciduous forest, and scrub/shrub cover types
2. Includes palustrine emergent wetland, palustrine forested wetland, palustrine scrub/shrub wetland, palustrine aquatic bed, and water cover types
3. Includes cultivated, pasture/hay, and grassland cover types
4. Includes impervious, developed open space, and bare land cover types

Approximately 125,273 acres, or 35% of the land within the region, is classed as protected open space, spread out over 1,366 properties. These properties include state forests and wildlife management areas, land owned by conservation organizations, town-owned land under the jurisdiction of the local Conservation Commission, and privately-owned farm and forestland protected through the Agricultural Preservation Program or a Conservation Restriction. The vast majority of these properties (1,213) are permanently protected; 149 are protected under temporary or limited agreements (see map below). The majority of protected open space properties in the 21-town region are privately owned, but the State of Massachusetts owns the most acreage (about 80,240 acres, or 64%, of the protected acreage in the 21-town region) (see Table 2-3, map below).



**LEGEND** Scale: 1:300,000

<span style="color: green;">■</span> IN PERPETUITY <sup>1</sup>	<span style="border-bottom: 1px solid black; width: 20px; display: inline-block;"></span> MTWP REGION
<span style="color: red;">■</span> TEMPORARY / LIMITED <sup>2</sup>	<span style="border-bottom: 1px dashed black; width: 20px; display: inline-block;"></span> TOWN BORDER
<span style="color: grey;">■</span> NONE / UNKNOWN <sup>3</sup>	<span style="border-bottom: 1px solid black; width: 20px; display: inline-block;"></span> MAJOR ROAD

**Protected Open Space: Level of Protection**

1. Legally permanently protected, e.g., through a conservation restriction.
2. Temporary: Legally protected for less than perpetuity, e.g., through a short term conservation restriction.  
Limited: Legally protected through other means, or likely to remain open space, e.g., a cemetery.
3. Legally unprotected open space, often used recreationally, e.g., scout camp, ski slope; or unknown.

*Protected open space data collected from MassGIS Protected and Recreational Open Space data layer.*

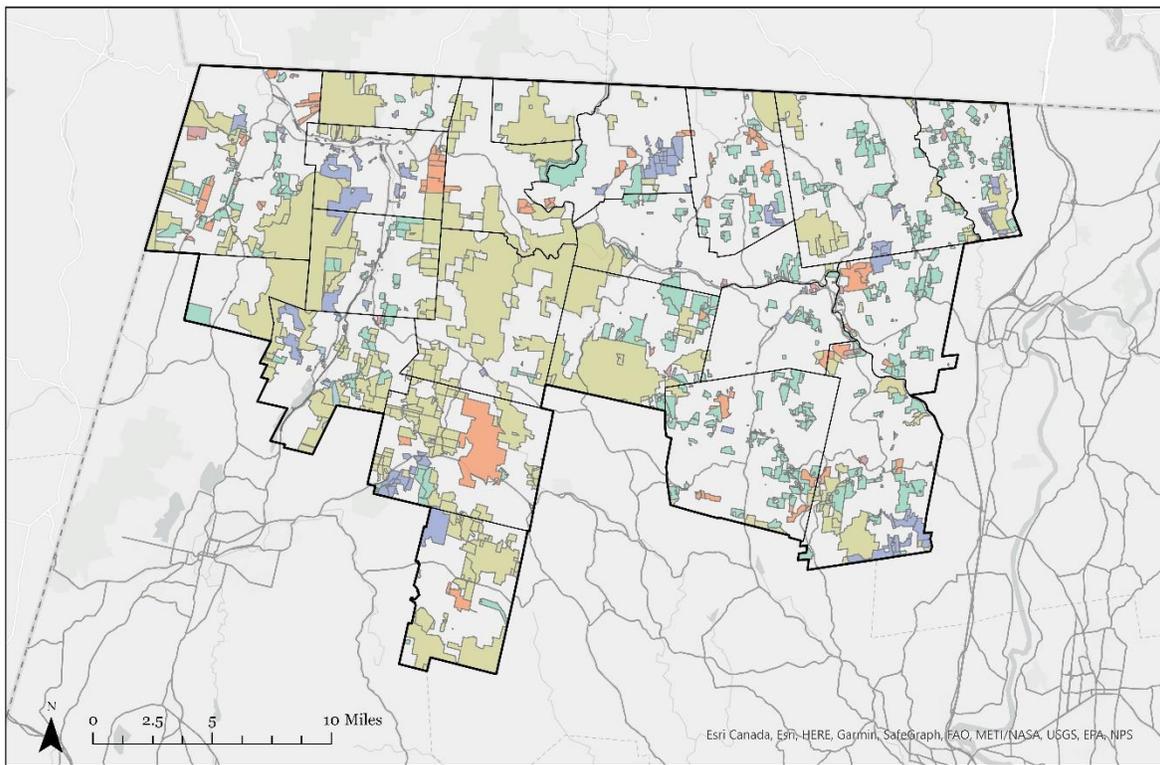
**Table 2-3: Protected Open Space Ownership Types in the 21-Town Region\***

Owner Type	Number of Properties	Acres
Federal <sup>1</sup>	18	382
State <sup>2</sup>	403	80,240
Municipal <sup>3</sup>	267	9,557
Private Nonprofit <sup>4</sup>	25	635
Private for-Profit <sup>5</sup>	556	25,353
Land Trust <sup>6</sup>	95	9,018
Other <sup>7</sup>	2	86
<b>TOTAL</b>	<b>1,366</b>	<b>125,273</b>

\* All data gathered from MassGIS (Bureau of Geographic Information), Commonwealth of Massachusetts EOTSS. Layers: Land Cover / Land Use (2016); Protected and Recreational Open Space (2021).

1. Portions of the Appalachian Trail Corridor are the only Federally-owned land parcels in the region; these parcels are owned U.S. Department of the Interior.
2. State Land is owned by the Department of Fish and Game, the Department of Conservation and Recreation, and the Commonwealth of Massachusetts.

3. Municipal land is owned both by towns in the 21-town region and by towns outside of the region, i.e., Greenfield, Dalton, Deerfield, and Northampton.
4. The largest Private Nonprofit landowners include the American Chestnut Nominee Trust (210 acres in Williamstown), World Species List—Natural Features Registry Institute (85 acres in Conway), Spirit Fire Meditative Retreat, Inc. (62 acres in Leyden), Girl Scouts of America (57 acres in Williamstown and Leyden), and the Holyoke Boys Club (44 acres in Hawley).
5. The largest Private for-Profit landowners include USGen New England, Inc. (908 acres at Monroe State Forest and Bear Swamp in Rowe and Florida), Roy Schaefer (833 acres at Berkshire East Ski Area in Charlemont and Hawley), Singing Brook Farm Trust (560 acres at Singing Brook Farm in Hawley), FO Ski Resorts, LLC (499 acres at Brodie Mountain Resorts in New Ashford), as well as several private individuals.
6. Land Trust owners include Berkshire Natural Resources Council, Franklin Land Trust, Kestrel Land Trust, Massachusetts Audubon Society, Massachusetts Forest Landowners Association, New England Forestry Foundation, The Nature Conservancy, Rowe Land Trust, The Trustees of Reservations, and Williamstown Rural Lands Foundation. The Trustees of Reservations own the most acreage (4,188 acres), followed by the New England Forestry Foundation (1,123 acres), and Berkshire Natural Resources Council (1,068 acres).
7. The Other category includes 2 properties: the Mohawk Trail Regional School Athletic Fields (50 acres in Buckland), and the Hoosic Valley Regional High School Athletic Fields (36 acres in Cheshire).



LEGEND		Scale: 1:300,000
<span style="color: lightblue;">■</span>	FEDERAL	<span style="border-bottom: 1px solid black; width: 20px; display: inline-block;"></span> MTWP REGION
<span style="color: yellowgreen;">■</span>	STATE	<span style="border-bottom: 1px dashed black; width: 20px; display: inline-block;"></span> TOWN BORDER
<span style="color: darkblue;">■</span>	MUNICIPAL	<span style="border-bottom: 1px solid gray; width: 20px; display: inline-block;"></span> MAJOR ROAD
<span style="color: teal;">■</span>	PRIVATE FOR PROFIT	
<span style="color: pink;">■</span>	PRIVATE NONPROFIT	
<span style="color: orange;">■</span>	LAND TRUST	

**Protected Open Space:  
Ownership Type**  
*Protected open space data collected from MassGIS  
 Protected and Recreational Open Space data layer.*

In addition, approximately 93,530 acres, or 26%, of land in the region is enrolled in one of three Chapter 61 programs for forestry, agriculture, or open space/recreation.<sup>17</sup> Each program provides a means to assess and tax land at its current use as opposed to its development value. Land can be removed from the Chapter 61 programs at any time, and therefore the land is not considered permanently protected from development. Municipalities have a right of first refusal to purchase a property being removed from the program if it is to be sold or converted to another use.

## Natural Resources

**A wealth of important natural resources lies within the 21-Town region, as it is the meeting place for six forest ecoregions (ecological zones with distinct geography, ecosystems, climate and landforms).** The Partnership's large forested land area also lies in a critical location between the Green Mountains to the north and the Highlands Conservation region stretching from Connecticut to Pennsylvania to the south. The Woodlands Partnership region supports biodiversity and wildlife habitat, and includes the headwaters for the Deerfield, Hoosic, and Westfield Rivers. Geologic features such as the Glacial Potholes in Shelburne Falls and the Natural Bridge in North Adams, add to the uniqueness of the area. Table 2-2 provides a summary of the natural resources in the region.

Much of the remaining old growth forest in Massachusetts, about 72%, is located in the 21-town region, with key sites located within or adjacent to the Mohawk Trail State Forest, Savoy Mountain State Forest, Monroe State Forest, and Mount Greylock State Reservation.<sup>18</sup> A 2006 study found trees between 325 and 488 years old, much older than the typical surrounding forest age of 100 to 150 years. The researchers call for these old-growth stands to be carefully protected to form the core of reserve areas, set aside from logging or other human disturbance.<sup>19</sup> The forests of the region include "Transition Forests," a combination of plants and deciduous trees from Middle Atlantic Forests and Northern Forests. Middle Atlantic Forests contain oak, chestnut, and many other tree species. Northern Forests are comprised of hemlock, maple, beech, birch, northern red oak, ash, and pine. Large tracts of Northern Hardwood Forests are found in the northern uplands of Franklin County and in the Berkshires. At the higher elevations of the region in eastern Berkshire County, the soils are thin and the

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<sup>17</sup> Department of Conservation and Recreation Chapter 61 data, 2022.

<sup>18</sup> <sup>18</sup> D'Amato, A.W., Orwig, D.A., and Foster, D.R. (2006). New Estimates of Massachusetts Old-growth Forests: Useful Data for Regional Conservation and Forest Reserve Planning. *Northeastern Naturalist*. 13(4): 495-506.

<sup>19</sup> Ibid.

weather conditions are harsh. Trees here grow laterally rather than vertically to avoid damage to branches and foliage from the icy winds of winter and the severe winds of summer storms.<sup>20</sup>

**Table 2-2: Natural Resource Values within the 21-Town Region**

Resource Category	Acres	Percent of Total Area
Total Area of Region	362,105	100%
Forest <sup>1</sup>	300,547	83%
Prime Forest Land <sup>2</sup>	299,097	82%
BioMap2 Core Habitat and Critical Natural Landscape <sup>3</sup>	209,117	58%
NHESP Species of Conservation Concern Habitat <sup>4</sup>	115,170	32%
MassWildlife Key Sites <sup>5</sup>	27,426	8%
Surface Water Supply Protection Areas <sup>6</sup>	50,991	14%
MA Department of Environmental Protection Zone II Approved Wellhead Protection Areas <sup>7</sup>	3,986	1%
Prime Farmland Soils <sup>8</sup>	69,708	19%
Wetlands	13,920	4%
Number of Certified Vernal Pools <sup>9</sup>	185	N/A
Old Growth Forest <sup>10</sup>	807	0.2%

1. Includes deciduous forest, evergreen forest, and scrub/shrub. MassGIS Land Cover / Land Use data, 2016.
2. Prime Forest Land is identified by analyzing average timber productivity for white pine and red oak in all potentially forested areas using soil data as well as wetland information, aspect, slope position, current land cover, and hydrologic soil association. MassGIS data from NRCS/MassGIS soils information, 2013.
3. The MA Natural Heritage & Endangered Species Program (NHESP) developed BioMap2 to guide strategic biodiversity conservation. BioMap2 defines Core Habitat as “critical to the long-term persistence of rare species ... as well as a wide diversity of natural communities and intact ecosystems.” Critical Natural Landscape is defined as 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.” MassGIS data, 2011.
4. NHESP Species of Conservation Concern Habitat includes the footprint of all species listed under the Massachusetts Endangered Species Act and all non-listed, mapped species in the State Wildlife Action Plan. MassGIS data, 2011.
5. The MassWildlife Key Sites analysis is a follow-on project for BioMap2 that identifies areas with especially high clusters of habitats for rare species.
6. Areas included in Massachusetts Drinking Water Regulations (310 CMR 22.00) as Surface Water Supply Protection Zones. MassGIS data, 2017.
7. Areas determined by hydro-geologic modeling and approved by the DEP Drinking Water Program as important for protecting the recharge areas around public water supply groundwater sources. MassGIS data, 2022.

<sup>20</sup> *Mohawk Trail Scenic Byway Corridor Management Plan*. Berkshire Regional Planning Commission and Franklin Regional Council of Governments. June 2002.

8. Prime Farmland is land that has the best combination of physical and chemical properties (soil quality, growing season, moisture supply, pH, salt and sodium content, etc.) for use in the production of food, feed, forage, fiber, and oilseed crops and is available for these uses. Natural Resources Conservation Service Web Soil Survey data.
9. All vernal pools that have been certified by the NHESP according to the Guidelines for the Certification of Vernal Pool Habitat (MA Division of Fisheries & Wildlife, 2009). MassGIS data, 2022.
10. Massachusetts has a total of ~1118 acres of old-growth forest throughout the state. 807 (72%) of these acres are in the 21-town region. Source: D'Amato, Anthony W., David A. Orwig, and David R. Foster. 2006. New Estimates of Massachusetts Old-Growth Forests: Useful Data for Regional Conservation and Forest Reserve Planning. *Northeastern Naturalist*, 13 (4): 495-506.

*BioMap2: Conserving the Biodiversity of Massachusetts in a Changing World*<sup>21</sup> is a statewide plan designed to guide strategic biodiversity conservation in Massachusetts over the next decade by focusing land protection and stewardship on the areas that are most critical for ensuring the long-term persistence of rare and other native species and their habitats, exemplary natural communities, and a diversity of ecosystems. Approximately 206,790 acres, or 60%, of the 20-Town region is designated as BioMap2 Core Habitat and/or Critical Natural Landscape (CNL), representing 10% of these areas in the State.

Building on *BioMap2*, MassWildlife's (Massachusetts Division of Fisheries and Wildlife) Key Sites Initiative identifies a unique sub-set of *BioMap2* lands that represent the Commonwealth's most significant natural areas. In the 21-Town region, 27,426 acres, or 8% of the total area, have been identified as Key Sites. These areas are a combination of rare species "hotspots"; have the best occurrences of highest priority species and natural communities; and include the most diverse forest cores in the State.<sup>22</sup>

The Massachusetts Executive Office of Energy and Environmental Affairs has targeted ten large, un-fragmented ecosystems across the State as a focus for conservation funding in order to protect the State's most unique large habitats. These Habitat Reserves include a mix of private and public lands consisting of mountain tops, wilderness areas, sustainably managed forests and forest reserves, and wild rivers. The 21-Town region hosts four of the ten reserves - the Northern Taconics, Mohawk/Savoy/Dubuque, Mount Greylock, and Chalet - which encompass 46% of the region.

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<sup>21</sup> [http://www.mass.gov/dfwele/dfw/nhESP/land\\_protection/biomap/biomap\\_home.htm](http://www.mass.gov/dfwele/dfw/nhESP/land_protection/biomap/biomap_home.htm).

<sup>22</sup> <http://www.mass.gov/eea/agencies/dfg/dfw/wildlife-habitat-conservation/key-sites-protecting-our-investment-in-public-land.html>. Forest Cores identifies the best examples of large, intact forests that are least impacted by roads and development, providing critical "forest interior" habitat for numerous woodland species. Forest core minimum sizes range from about 500 acres in eastern Massachusetts and major river valleys, to over 2,000 acres in the western Massachusetts highlands.



*Many farms in the region include open farmland and woodlots, important for a farm's viability.*

The forests play an integral role in supporting the water resources in the region. The Deerfield River is generally considered to be one of the most pristine rivers in Massachusetts, and is home to a large variety of aquatic and wildlife species. Many of the streams and rivers in the Deerfield River and Hoosic River Watersheds are known for their excellent trout fishing

opportunities.<sup>23</sup> Hoosic River is the highest elevation watershed in Massachusetts, arising, in part, on Mt. Greylock. Surface waters, including ponds and lakes, and underground aquifers provide residents and businesses in the region with clean drinking water.



*Forest play an integral role in supporting the region's water resources, including the Cold River in Charlemont.*

The majority of the region is made up of prime forest soils, which is land that has been rated as being very productive for growing timber based on a high site index for red oak or white pine.<sup>24</sup> In addition, 20% of the region is identified as prime farmland, mostly in the river valleys where rich alluvial soils have been deposited for thousands of years. Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for economically producing sustained high yields of crops when proper management and acceptable farming methods are applied.

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<sup>23</sup> *Mohawk Trail Scenic Byway Corridor Management Plan*. Berkshire Regional Planning Commission and Franklin Regional Council of Governments. June 2002.

<sup>24</sup> See Mass GIS for more information on the definition of Prime Forest Soils: <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/primeforest.html>.

The region contains ancient marble and limestone bedrock, which once supported several quarries, including an abandoned marble mine at the Natural Bridge State Park in North Adams (and still supports the quarry at Specialty Minerals, Inc., in Adams). The park features the Natural Bridge, a geological formation which is the only bridge in North America created by the erosive forces of water. The exposed marble near the bridge was formed over 500 million years ago. According to geologists, the marble was carved into an arch by the force of glacial melt water over 13,000 years ago and is one of the best places in New England to observe the effects of glaciation, the entire region being under a 1.5-mile-thick sheet of ice 15,000 years ago.

The melting of the glaciers also formed another unique geological feature in the region. The Glacial Potholes in Shelburne Falls are one of the largest known concentrations of glacial potholes in the country. Over fifty potholes, ranging in size from six inches to thirty-nine feet, were formed by the whirlpool action of water and gyrating stones during the glacial age. They were created beginning 14,000 years ago, when flooding and receding waters of the Deerfield River eroded the underlying gneiss rocks, and have continued to form and change ever since.<sup>25</sup>

## Summary and Key Findings

- Massachusetts' most rural area, the 21-Town region contains diverse historic, scenic, and natural beauty and a rich history of working landscapes. While the region's economy has struggled in recent decades, the area's resources and rural quality provide a strong backbone for building a sustainable rural economy.
- The 21-Town region is approximately 83% forested. The varied topography of the region creates a convergence of different forest types within a small geographic area, providing a unique opportunity for research and demonstration forestry that could be instructive to many other areas of the eastern United States.
- Bordered by the Green Mountain National Forest to the north, the region's forests are part of an even larger forest block that supports biodiversity and wildlife habitat, and includes the headwaters for the Deerfield, Hoosic, and Westfield Rivers. Much of the remaining old growth forest in Massachusetts is located in the 21-Town region, and geologic features such as the Glacial Potholes in Shelburne Falls and the Natural Bridge in North Adams, add to the uniqueness of the area.

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<sup>25</sup> *Mohawk Trail Scenic Byway Corridor Management Plan*. Berkshire Regional Planning Commission and Franklin Regional Council of Governments. June 2002.

- The intact forested ecosystems of the MTWP Region are providing essential ecosystem services of high purity water, clean oxygen-rich air, carbon dioxide sequestration, habitat protection, flood mitigation, and biodiversity that benefit not only the immediate region, but the rest of the Commonwealth and beyond.