

## INTRODUCTION AND OBJECTIVES

The Town of Lyme, New Hampshire contains approximately 55.0 square miles (35,215.8 acres) of total area which includes 1.62 square miles (1,033.8 acres) of inland waters, including 0.73 square miles (468.4 acres) of the Connecticut River according to GRANIT data. Out of 55 square miles of land, approximately 20.9 square miles are owned by a governmental agency or in some sort of conservation easement leaving roughly 35.0 square miles (22,400 acres) or 62.0% of the land in Lyme that is already developed or available for future growth or development. This project focuses on the entire Town of Lyme but was directed toward locations and sections of Town selected by the Lyme Conservation Commission. In 1790, the year of the first census, Lyme's population was 816 residents. In the 2005 census Lyme had a population of 1,704 residents, ranking 150<sup>th</sup> out of New Hampshire's incorporated cities and towns. (Economic & Labor Market Information Bureau 2006) Lyme has seen a steady population growth since 1950, but has experienced a shift in residential location within its borders as depicted by "A Town That Has Gone Downhill" (Goldthwait, 1927 – reprint 2006). The majority of Lyme's working population commutes to other NH towns or into nearby Vermont for employment (approximately 75% commute to work).

Lyme was one of many towns granted along the Connecticut River in 1761. Lyme takes its name from Old Lyme, Connecticut, which lies at the mouth of the Connecticut River. For many years the town's name was spelled as Lime in official state documents however this eventually was decreed a misspelling. From a natural resource perspective, the spelling as Lime seems appropriate as numerous higher pH bedrock areas of lime and calcareous inclusions provide unique habitat, soils, plants, and natural communities that are not ordinarily found in the granite, lower pH bedrock common to New Hampshire, i.e. The Granite State. Most of the original grantees were from Palmer and Brimfield in Massachusetts, or from Londonderry, New Hampshire. Lyme was one of the 16 towns involved in a protracted border dispute with the independent state of Vermont, before it was admitted to the Union in 1791 (Economic & Labor Market Information Bureau 2006).

The majority of Lyme's business currently is centered on small high tech companies. Lyme is very scenic with several outdoor recreation opportunities. Post Pond, Trout Pond, Pout Pond, Little Clark Pond, portions of Reservoir Pond and Mud Pond, many unnamed ponds, approximately 8.3 miles along the Connecticut River, several brooks, and vast forested lands, are some of the places available for people to enjoy. Hiking, swimming, fishing, boating (predominantly kayaking and canoeing), hunting, rock/ice climbing, bicycling, skiing (alpine and nordic), snowmobiling, snowshoeing, and scenic viewing opportunities exist. The Dartmouth Skiway, portions of the Appalachian Trail, a network of hiking trails, several scenic overviews, and public parks draw people to Lyme. Opportunities for wildlife viewing, particularly birds, and rare plant observation offer further unique natural resource assets to Lyme. Some lodging facilities operate in Lyme including two bed and breakfast inns, and a seasonal cabin resort. The New England Regional Office (a branch office) of The Appalachian Trail Conservancy (ATC), a nonprofit manager of the 2,175 mile long Appalachian Trail, is located in Lyme, far north of the trailhead at Springer Mountain in Georgia. Lyme has evolved into a 'commuter town' with a number of small businesses focused on services and has managed to retain its rural small town character. The combination of natural resources and small town character of Lyme is the number one draw for residents and visitors to the area.

Lyme contains a wide variety of ecological habitats due to the great diversity in its landscape and geological composition. A large diversity of habitat types and natural communities were observed, such as steep slopes, forested mountainsides and valleys,

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regenerating clear-cuts, riparian and various wetland complexes. Most of the land in Lyme that is not part of the residential and downtown areas is forested at this time, differing dramatically from the height of the Agricultural Era when approximately 85% of the land was cleared. Only a small acreage of land is currently farmed and limited permanent openings exist. Lyme's higher pH soils and rough terrain allow for a significant amount of oak, pine and beech stands, mixed with stands of bitternut hickory. There are also areas of wetlands where red maple, grey birch, balsam fir, and hemlock dominate.



Many ledges offer scenic overviews of portions of Lyme with spectacular views such as this overlook on Post Hill.

The largest river in Lyme is the Connecticut River, which flows along the western boundary of Town, abutting Thetford, Vermont. Hewes Brook, Grant Brook, Trout Brook, and Clay Brook are some of the named brooks that flow within Lyme where numerous unnamed brooks are also present. The majority of flowing waters are in the Connecticut River Watershed but a small area in the northeast flows into the Baker River and eventually the Merrimack River. Numerous wetland and riparian habitats occur along the Town's watercourses; they do not make up a large percentage of the land cover but are a significant component of the ecosystem within Lyme.

This project provides a base Natural Resource Inventory (NRI) with digital data that can be integrated with the existing Lyme GIS database, other studies, and future data. For example, newly digitized data from this project, such as permanent openings and dense softwood cover, is projected in NH State Plane Coordinates, NAD 83, and compatible with existing Lyme GIS data.

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Even on lower elevation rolling knolls, the Town's spectacular views make its hillsides potential building sites. Note the hot-air balloon near the center of this photograph, exhibiting yet another form of recreation and viewing perspective of Lyme.

One of the goals of this project is to provide inventory, management recommendations, and planning tools for the Town including incorporation into an update of the Master Plan. Another goal of the project is to integrate all existing data for Lyme, with new data created and field verified from this project, wetlands being a prime example. This produces a seamless comprehensive town-wide composite, and provides an educational and planning tool. It promotes conservation of riparian habitat, wetlands, and unique co-existing natural resource features throughout the town.

Measurable objectives of this project include the following:

1. Provide the Town of Lyme with new accurate, standardized coverages that will integrate with the Town's existing GIS.
2. Incorporate natural resources, scenic vistas, riparian buffers and other related elements for comprehensive planning.
3. Increase awareness of the values of the rural characteristics of the Town including scenic view areas, recreation areas, riparian buffer habitat, and wetlands with associated wildlife habitat through a public presentation and discussion.
4. Provide the Town with the ability to produce hardcopy printouts of this new data as requested or needed.
5. Provide the Town with the ability to continue to build upon and update the digital database.