

## ***Wildlife Action Plan***

The New Hampshire Fish and Game Department worked together with partners in the conservation community to create the state's first Wildlife Action Plan. The plan, which was mandated and funded by the federal government through the State Wildlife Grants program, provides a tool for restoring and maintaining critical habitats and populations of the state's species of concern and their habitat. New Hampshire Fish and Game claim it to be a first step on a statewide scale to work towards helping keep species off the rare species lists. The NH Wildlife Action Plan was submitted to the U.S. Fish and Wildlife Service on October 1, 2005, and was approved in the spring of 2006.

In the GIS phase of the Wildlife Action Plan, biologists conducted co-occurrence analyses using a variety of large scale digitized natural resource features such as wetlands, riparian habitat, unique rock outcrops, dense softwood stands, alpine areas, etc. This analysis identified and ranked areas of conservation priorities throughout the state and at a statewide level. Approximately,  $\frac{2}{3}$  of Lyme contains land that was classified as "Highest Rank Habitat by Condition in NH" and "Highest Rank Habitat by Condition in Biological Region." Nearly  $\frac{1}{3}$  of the Town contained land classified as "Supporting Landscapes." Areas ranked relatively lower by this method are found along the Connecticut River region suggesting that agriculture and development have diminished the quality of wildlife habitat.

Because the Wildlife Action Plan was done at a broad scale, not all areas containing important wildlife habitat were identified in Lyme. It is also important to note that this analysis focused on 123 species and 27 habitats in greatest need of conservation throughout the State, which contains over 1,300 known species. Nevertheless, it is an important starting point for Towns, including Lyme. Future work, including this NRI, can be shared with Fish and Game, and incorporated into the Wildlife Action Plan to build upon and improve data and habitat analyses.

## ***Scenic Resources***

Lyme is known as one of New Hampshire's premier scenic towns because of its mountainous topography, complemented by numerous ponds, streams, and miles of frontage on the Connecticut River with associated floodplains. This diversity of topography and roughed landscape makes an important contribution to the Town's overall scenic resources. High points along the Appalachian Trail as it traverses Smarts Mountain and Mount Cube offer numerous scenic views as part of a national trail and include Lambert Ridge and Holts Ledge trails. Complementing scenic views can be found along the several local trails such as Grant Brook Trail, Chaffee Trail, Bigrock Trail, Town Forest Trails, Trout Pond Loop, and many unnamed trails such as to the top of Post Hill and Acorn Hill just to name a few. Many town roads and jeep trails also offer spectacular views.

Lyme's numerous mountains and ledges are not the only scenic resources the Town has to offer. The Connecticut River and several streams and ponds offer scenic views from a different perspective compared to hill tops. In all cases, wildlife and rare plant observation are available and diverse. Many of Lyme's larger wetlands also provide easily accessed scenic viewing areas. The wetlands and views along the Goose Pond Road, Bliss Lane, Grafton Turnpike Road, Dorchester Road, River Road, and Mud Turtle Pond Road through Skunk Hollow are just some of the numerous roads that provide a wide variety of scenery.

Many of Lyme's fields and permanent openings also provide scenic vistas, especially along River Road, Breck Hill Road, North and East Thetford Roads, the Dartmouth College Highway, and Baker Hill Road. A nearby hot-air balloon club offers a unique aerial way to view

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the Town's scenic resources providing the ability to get a "bird's-eye-view" of Lyme. In many cases, these scenic views include views into Vermont as well as New Hampshire. From a natural resource perspective, there are opportunities for scenic vistas throughout the entire town



There are many opportunities to enjoy the scenery throughout Lyme. Views from rolling hills with permanent openings to those from ledge top overviews can be found.

In recent years, development and population growth throughout the State and region have caused people to increase their appreciation of the natural scenery New Hampshire has to offer. In 2003, the Upper Valley Lake Sunapee Regional Planning Commission inventoried scenic resources along Route 10. Lyme has a high density of scenic opportunities and should consider this an important natural resource to maintain.



This old bridge has been modified to offer scenic views of the Connecticut River and into Vermont. Far reaching views can be seen from numerous ledge sites such as this one from the Winslow Ledges.

### **Conservation Land**

Approximately 13,350 acres equaling 38.0% of Lyme is land conserved by governmental ownership or conservation easements, and is protected as conserved land. These easements are scattered throughout Town, with a majority of larger parcels in the eastern, particularly northeastern areas of Lyme. The largest easement is 1,330.34 acres.



This photo shows part of a large and diverse wetland complex off of Goose Pond Road and south of Holts Ledge. Part of this wetland complex is under Conservation Easement as part of the Appalachian Trail Tract. A perennial brook flows through open water and emergent wetland types, which then transition to scrub-shrub habitat, followed by dense softwood stands, and eventually into upland hardwood forest.

There are several ways to conserve land. A conservation easement on private land is a property right that can be bought or sold. It allows property owners to put limitations on their property when an easement is sold, or for another person to set limitations upon the property owner when an easement is purchased. Promoting landowners in Town to conserve and connect smaller parcels into a larger, contiguous area of land for conservation can be a great and important place to start when increasing conservation lands. This typically is a feasible place to begin because it does not necessarily put pressure on landowners to feel like they must give up extremely large parcels of land. Adding onto already existing conservation lands or working towards connecting nearby parcels is important for wildlife because it will increase the connectivity while decreasing the amount of fragmentation between parcels. Other methods of obtaining and conserving land are ownership by the State, Federal Government, or the Town.

In Lyme, conservation easements are owned by the easement holders, including the Upper Valley Land Trust, the Society for the Protection of NH Forests, Connecticut River Watershed Council, Town of Lyme, State of New Hampshire, and the Federal Government. In these cases, the land owners retain ownership of the land without certain development rights. Federal land is owned by the National Park Service, and includes the Appalachian Trail Corridor. State owned lands are primarily the Wilder Wildlife Management Area on River Road. Examples of Town owned lands are the Lyme Town Forest, Trout Pond Forest, Lower Grant Brook Trail Preserve, and many smaller parcels such as Chaffee Wildlife Sancturay and the Big Rock Nature Preserve.

## ***Cultural Resources***

As is the case in most New England towns, Lyme has a rich history of land use changes from its original settlement to current times. Before arrival of European settlers, Lyme was home to the Abenaki Indians, who spent time near Post Pond at a place they called Ordanakis. The first European settlers relied on farming as their livelihood, and they concentrated along the



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Connecticut River area. In the western portion of the Town, many acres of the land were cleared for croplands and pastures. Farming is far less common today, although it still occurs in Lyme with dairy farms, horse farms, and hay fields. It has been expressed by several residents that an overall goal of the community is to preserve these sites with permanent openings. There is still evidence of old farms and miles of stonewalls to be found in areas which reverted back to forest. Old stone cellar holes are scattered around various areas of Town. Forestry and logging continue and are still a part of the culture of the Town.



Stone walls show where former farms and fields have reverted back to forest, leaving remnants of cultural history.



One of the many cellar holes which can be found throughout Lyme.





Gilbert Cemetery where the first settlers in Town were buried.

### ***Invasive Plant Species***

There is an increase in public awareness and concern about the rapid growth of invasive species in NH and throughout New England. Invasive species are plant and wildlife species that are not native to an area, but take up residency and can out-compete native species. These species tend to be more common in wet areas such as lakes, wetlands, and riparian habitats. They can also be found at old farm sites where people have planted various fruiting and ornamental plants for agricultural purposes. Without counting plantings on people's lawns and gardens, six species were observed and documented during fieldwork for this project; Japanese barberry (*Berberis thunbergii*), tartarian honeysuckle (*Lonicera tatarica*), purple loosestrife (*Lythrum salicaria*), Japanese knotweed (*Polygonum cuspidatum*), black locust (*Robinia pseudoacacia*), and coltsfoot (*Tussilago farfara*). There are areas in Lyme where these plants have established themselves in quantities sufficient to be a concern. Purple loosestrife was observed in numerous locations, Japanese barberry and tartarian honeysuckle in old farming areas, and coltsfoot was observed in several locations. All species were observed along the Connecticut River. Other invasive species reported in Lyme are common buckthorn (*Rhamnus cathartica*), glossy buckthorn (*Frangula alnus*), and winged euonymus (*Euonymus alatus*). This NRI was not designed to be an all inclusive search and documentation of invasive species in Lyme. There may be other species and locations where invasive species occur in Town.



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A substantial clump of Japanese knotweed along the Connecticut River in Lyme.



Coltsfoot thrives in bare disturbed soils.



Purple loosestrife demonstrating its hardiness by establishing itself on the side of the North Thetford bridge pier in the middle of the Connecticut River.

A pilot project to release beetles (*Galurecella spp*) to control purple loosestrife has occurred at the Wilder Wildlife Management Area, Maple Leaf Farm on Route 10, Nichols Christmas Tree Farm on Route 10, and Post Pond.

The Town of Lyme should continue their efforts to help eradicate these invasive species, and may want to seek assistance from the Lyme Conservation Commission, Connecticut River Joint Commission, Invasive Plant Atlas of New England (IPANE), New England Wild Flower Society, and other organizations that have begun programs to control or eradicate invasive species. For further information on invasive species, and an update of the increasing list of these species, review the IPANE website at [nbii-nin.ciesin.columbia.edu/ipane/ipanespecies/ipanespecies.htm](http://nbii-nin.ciesin.columbia.edu/ipane/ipanespecies/ipanespecies.htm).

### ***Habitat Area Summary Table***

The table displayed below is a summary of different habitat areas in acres and square miles.

<b>Habitat Type</b>	<b>Number of Acres</b>	<b>Number of Square Miles</b>	<b>Percentage of Town Land Mass</b>
Lyme Town Boundary	35,216	55.02	100%
Dense Softwood Cover	5,773	9.02	16.4%
Wetland Complexes (from National Wetland Inventory data)	1,562.5	2.44	4.4%
Hydric Soils (from Natural Resources Conservation Service data)	1,752	2.74	5.0%
Wetland Analysis and Fieldwork results	1,793	2.8	5.1%
Aquifers	3,052	4.77	8.7%
Permanent Opening	2,560	4.00	7.3%
Prime Farmland	1,423	2.22	4.0%
Farmland of Statewide Importance	1,698	2.65	4.8%
Farmland of Local Importance	4,939	7.72	14.0%
Steep slopes – 15% and greater	23,144	36.16	65.7%
Steep slopes – 25% and greater	9,047	14.14	25.7%
Conservation Lands	13,350	20.9	38.0%