

DISCUSSION – FUTURE APPLICATIONS AND BENEFITS

This project has compiled natural resource data into a digital database in GIS format and produced a written report for use in the Town of Lyme. It contains a database with a comprehensive, updatable, digital inventory of the entire Town in a compatible format with the existing Lyme GIS. It is also anticipated that efforts from this project will aid in future work and inventories, as well as provide data to guide future development throughout Lyme.

It is anticipated that results from this study will help the Town of Lyme in many ways. Town-wide zones based on habitat and vegetation can be identified and classified. Data gathered from this work will also assist the Conservation Commission, Planning and Zoning Boards, and Select Board, in foreseeing possible conflicts of future development. Perhaps the most powerful advantage of this project is that future studies and events can be integrated to build upon this database indefinitely.

Based on results from this study, Watershed to Wildlife, Inc. has identified areas for additional work. They include the following:

1. **Wetland Identification and Protection** - There are several wetland complexes adjacent to brooks and their tributaries, and along some hillsides. The importance of conserving these wetlands cannot be over emphasized. It is hoped that the Town will continue to pursue ways to further inventory the functionality and vulnerability of these wetlands with a ranking system, and a long-term goal of Prime Wetland designations.
 - a. An in-depth inventory of vernal pools throughout Lyme would also enable the Conservation Commission, Planning Board, and Select Board to critique and adjust future subdivision proposals if vernal pools are likely to be impacted.
 - b. The 1998 study by DeGraff and Turner (*A Comparative Evaluation of Five Wetlands for the Town Lyme, NH*) is a good start to designating Prime Wetlands in Lyme. The Conservation Commission should continue to explore designating some of these wetlands.
 - c. Compile previously delineated wetlands, documented wetland locations, and other areas containing wetlands; conduct future expanded wetland delineations according to the Routine Onsite Determination Method of the U.S. Army Corps of Engineers in the 1987 manual. This method meets New Hampshire requirements for standardized wetlands delineations.
2. **Shoreline Protection** - Most of the shoreline along the Connecticut River has adequate vegetative buffers. There are some sections in Lyme where enhancement of the buffer by plantings would help minimize erosion and the resultant loss of land. Most of these areas can be identified by using Lyme's GIS.
3. **Aquifer Protection** - Based on the locations of the underlying aquifers in Lyme, and the gravelly/sandy nature of the soils, it is important that steps be taken to protect the groundwater, brooks, and aquifers in Lyme. They are:
 - a. Implement Best Management Practices (BMPs) within aquifer areas.
 - b. Monitor septic system plumes with a focus on parcels adjacent to brooks, wetlands, and aquifers.
 - c. Monitor the placement of future septic systems keeping in mind the typically high permeability of many of Lyme's soils.

4. **Hillside and Ridgeline Protection** - Lyme's mountainous topography and abundance of steep slopes are directly related to the Town's tourism industry, scenic beauty, and assortment of natural resources (wetlands, streams and rivers, wildlife, plants, soils, etc.). Research and considerations should be made towards evaluating and possibly updating the zoning ordinance in Lyme to conserve these unique and important natural features.
5. **Dense Softwood Stand Protection** - Based on results from this project, there are relatively more dense softwood stands scattered throughout Town, when compared to the statewide average. Maintaining the existing stands for the benefit of the deer, moose and other wildlife populations is very important. Places to extend the existing softwood areas and connect patches of softwood in a continuum should be further investigated and willing landowners should be encouraged to do so, particularly with abutting wetlands and/or riparian buffers.
6. **Land Conservation** - Even though a high percentage of Lyme's land is already in conservation, continuing to explore lands to potentially conserve will further benefit the Town's natural resources. Focus should be on connectivity between already conserved parcels or looking at habitat types that are not currently well represented in conservation lands such as wetland complexes, permanent openings, and dense softwood areas. Lyme should continue to encourage landowners to place land into conservation easements.
 - a. Stewardship planning of these properties is recommended.
 - b. Investigating purchasing adjacent parcels to current conservation lands would increase and maintain existing wildlife travel corridors. It would be beneficial to the Town by maintaining the connectivity of forestlands, wetland complexes, and open space habitat.
7. **Scenic View Conservation** - The potential for a continued population increase throughout the Town makes it wise for landowners to sustainably conserve their land. By taking a proactive approach to deal with future development pressures, the scenic vistas and beauty will remain as impressive (or even better) tomorrow as they are today. Scenic easements are types of conservation easements that make protection of scenic resources possible.
8. **Interagency Cooperation** - It is hoped that Lyme will continue to work with other Towns, organizations and agencies throughout the region to share future data as it becomes available. This will avoid an all too common problem of separate entities replicating work.

Long-term uses of this project could include, but are not limited to: assisting the Town and others in determining "least-impact" sites for future development, telecommunication towers or wind farms; guiding refinement of the Master Plan based on impacts to natural resources; promoting a protection plan for the large aquifers under much of the Town, and further identification of land for purchase or easements for protection into the future. Furthermore, the Town is in a position to request that all future development plans be delivered in digital format, which would build upon the initial database as well as assist in updating the tax maps for assessment at little cost to the Town.

REFERENCES

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