

Appendix E

Forest Stewardship Report Excerpts



officials to have access to improved information when making decisions about forest use and ownership, due in large part to the 1991 extension of the Green Mountain National Forest proclamation boundary to include the western half of the region. That study included a comprehensive inventory of natural resources in the Taconic Range (all land west of the US Route 7 corridor in Bennington County) and assessed the value of land for extractive wood product uses, development, recreation, fish and wildlife habitat, and water supplies. The project also provided towns with maps showing where those uses might come into conflict. Geographic data available today allows for an improved region-wide resource assessment within the context of the area's unique landscapes. This current stewardship plan also gives local officials and private landowners information and strategies that will help improve the long-term viability of important forests and forest-based resources.

The forest stewardship project for the Bennington Region was guided by a steering committee consisting of the membership of the Bennington County Sustainable Forest Consortium, an organization that includes consulting foresters, local officials, forest landowners, wood products business owners, the county forester, and the director of the Bennington County Conservation District. The BCRC provided staff support, including geographic information system mapping and analysis, and coordination with three other regional planning commissions (Addison County Regional Planning Commission, Lamoille County Planning Commission, and Two Rivers Ottauquechee Regional Commission) working on forest landscape stewardship plans under the same program, and received further guidance from the Forestry Division of the Vermont Department of Forests, Parks and Recreation.

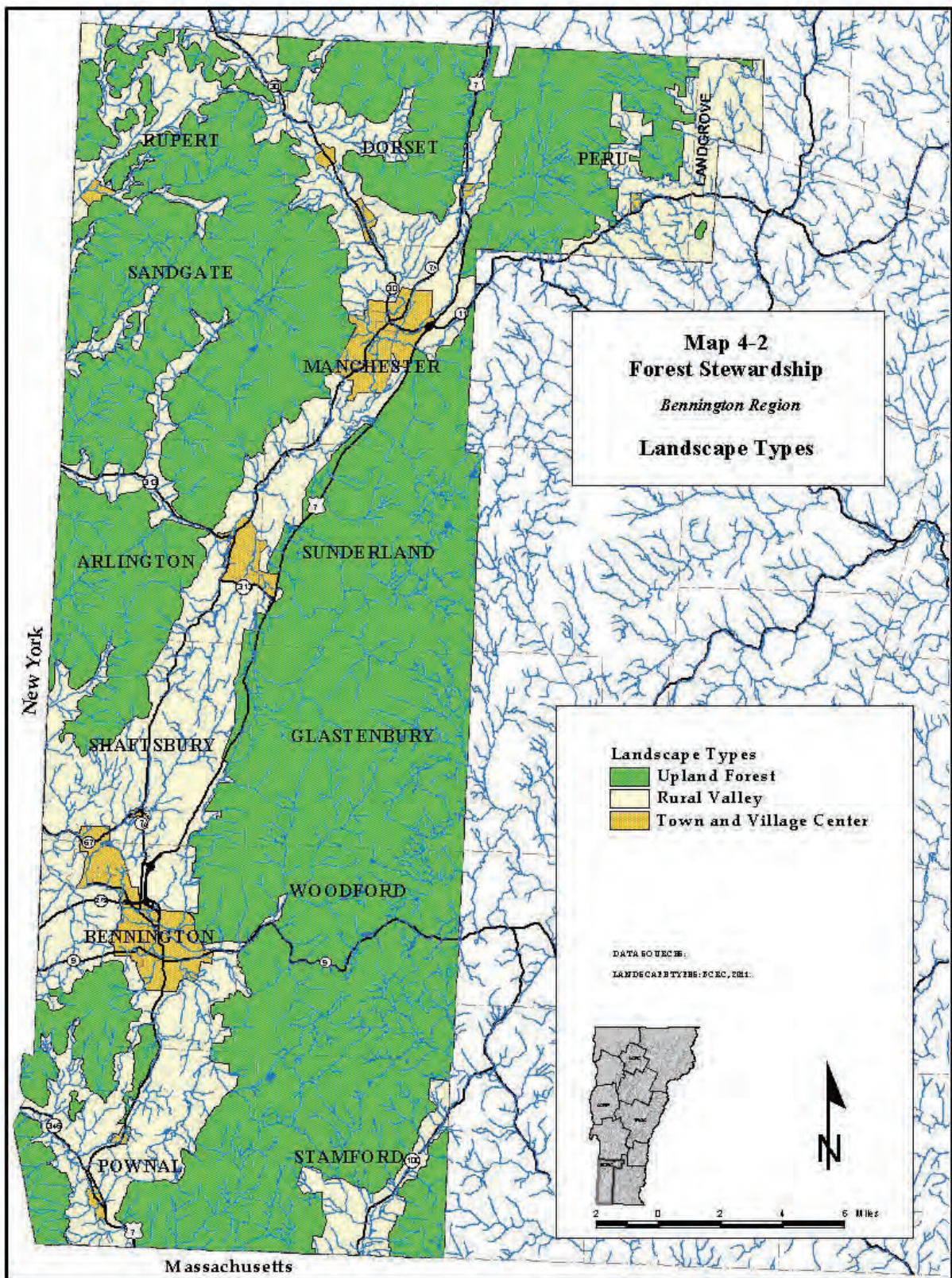


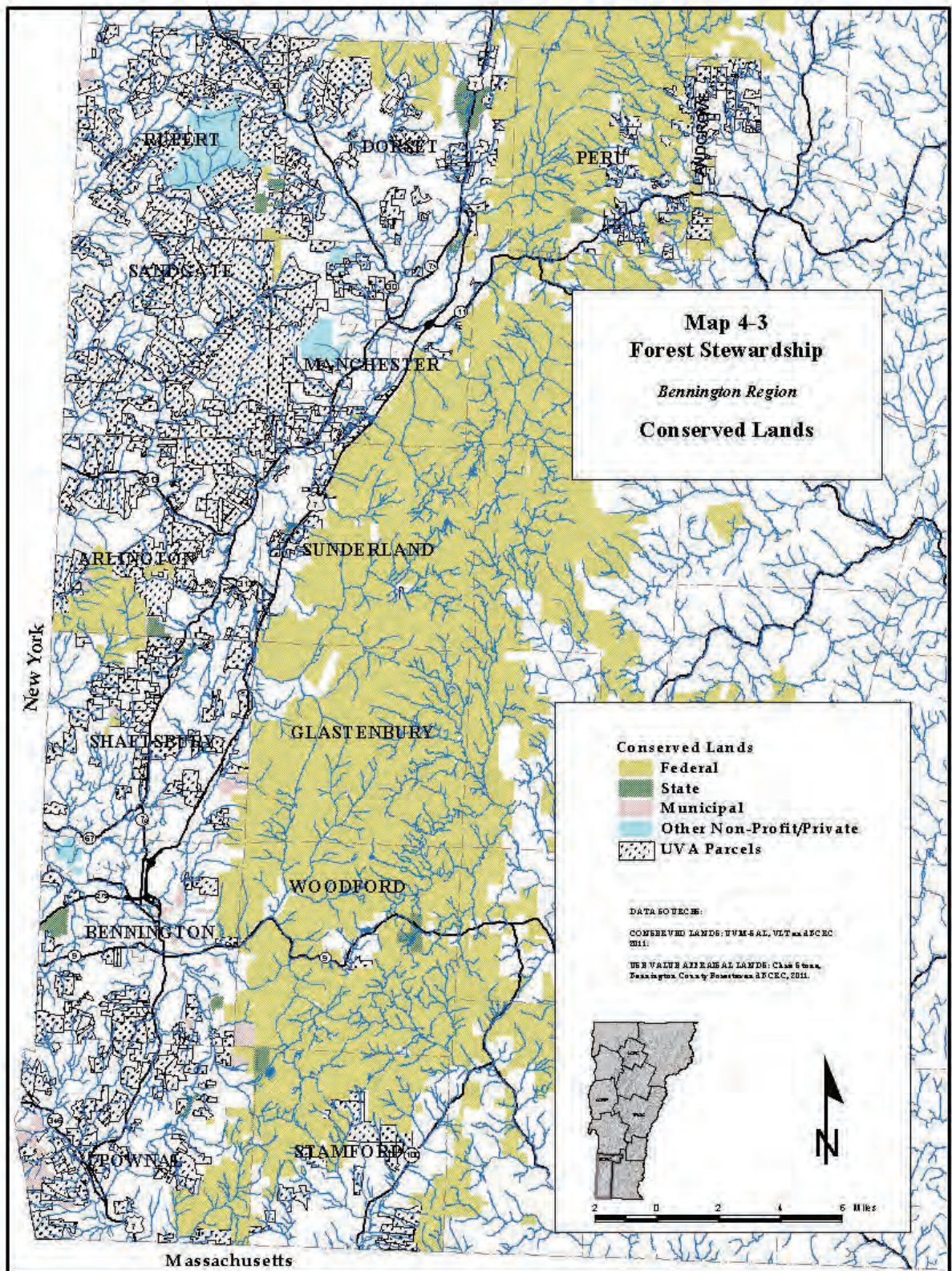
Forest landscapes in the Bennington Region are diverse, ranging from the vast unbroken tracts in the Green and Taconic Mountain Ranges to smaller woodlots in rural valleys and near town and village centers.

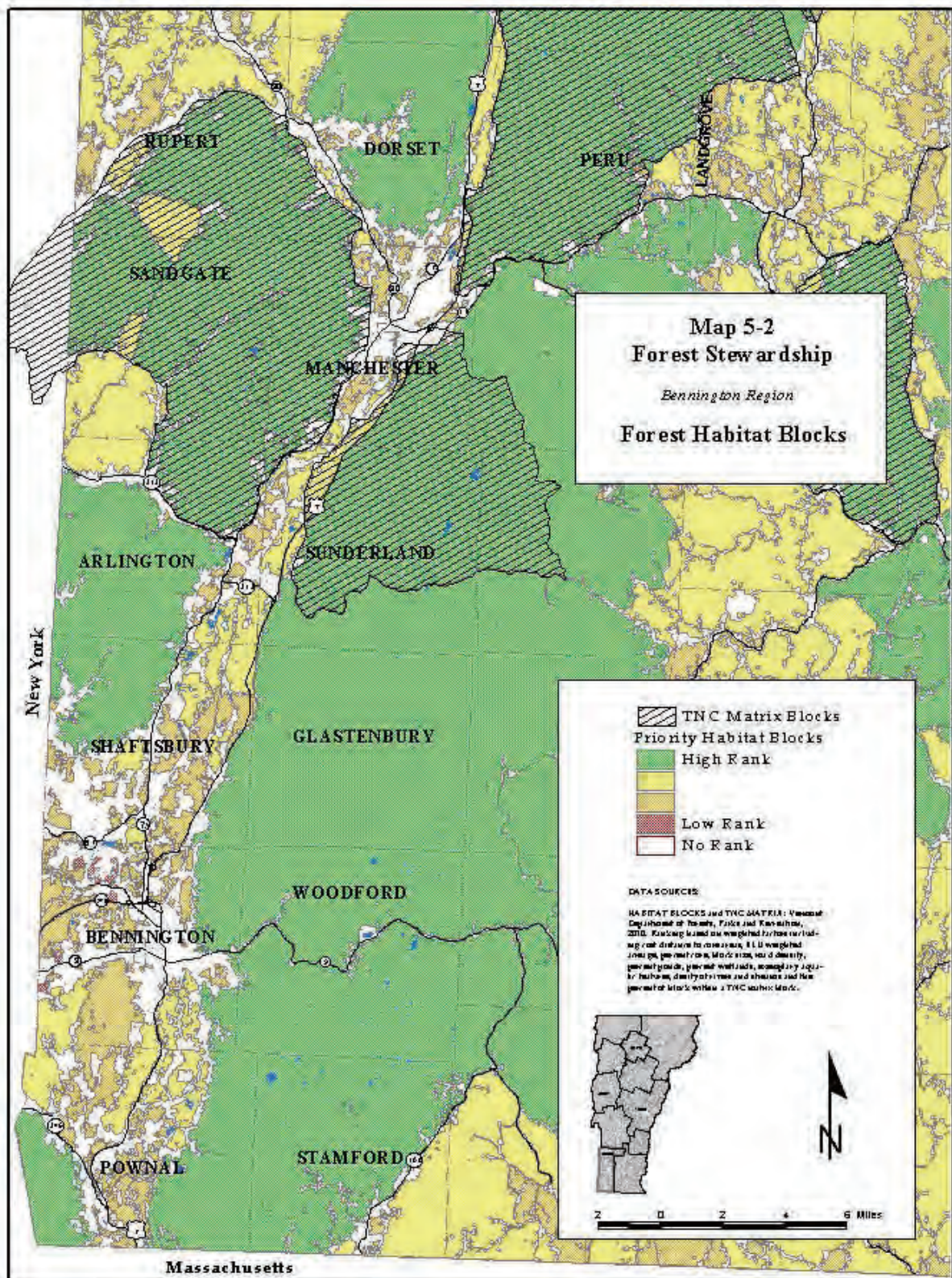
III. Objectives

The overall objective of this planning effort is to provide information and tools needed by public and private sector decision-makers to “keep forests as forests.” This statement is perhaps overly broad, however, and needs to be further explored and clarified. It was noted earlier that a significant majority of the Bennington Region is covered with trees. Three hundred years ago, the entire landscape, with the exception of water bodies and a few small clearings made by Native American hunting parties, was forested. Following settlement of the area, beginning in the mid-1700s, clearing of forest lands began in earnest, and just 150 years ago, most of the valley lands and much of the mountainsides were devoid of trees. A slow, but steady, reforestation process began in the late 1800s and continues to this day, as previously open land is reclaimed through processes of natural ecological succession.

The reasons for this waxing and waning of forest cover is directly related to the changing needs







scape zone are those closest to developed areas (especially in Bennington) and in areas where the forested blocks are relatively small (Shaftsbury and Rupert). Forested corridors along streams and between otherwise separate forest blocks in rural valleys provide vital cover and travel routes for numerous wildlife species.

Forest habitat blocks in town and village centers are relatively small and include fewer critical ecological landscape units and rare or significant species and natural communities. Nonetheless, forested areas in and around town and village centers do contain some important habitat areas which should be recognized and protected even though the habitat block analysis does not assign the areas an overall high rating.

The important habitat resources that may not be fully reflected in the habitat block analysis, including those in town and village areas and throughout the region, need to be identified and protected. A single wetland containing an important natural community or a deer yard in an area with relatively small habitat blocks, for example, may fall into a “lower” value block, but it is important to know that they exist as individual resource elements. A map of the distribution of these individual resources (Map 5-3), shows that many important wetland habitats and rare species and significant natural communities are found in rural valley landscape areas.

The map of regional wildlife resources also shows that the areas covered by significant bear habitat are closely correlated with high-rated habitat blocks because both rely on similar factors of remote and unbroken forest with supporting surface water resources. It also is important to note the presence of deer wintering yards in the region. The whitetail deer is an important species to the region’s ecosystem and also an important economic asset and wintering yards are especially important to the health of the herd.

The specific habitats and much of the value assigned to the habitat blocks place significant weight on the value of remote and largely uninterrupted expanses of forest land. These areas are necessary to support viable populations of many species, but other species thrive in areas which are either open, or which are characterized by “edge” habitat—transitional areas between forested and open lands. Many avian species rely on edge habitat areas, and deer migrate from forest cover to open fields to graze. Consequently, the interplay of smaller woodlots and open fields in rural valley and town and village center landscapes is an important component of the overall health and diversity of the region’s wildlife.

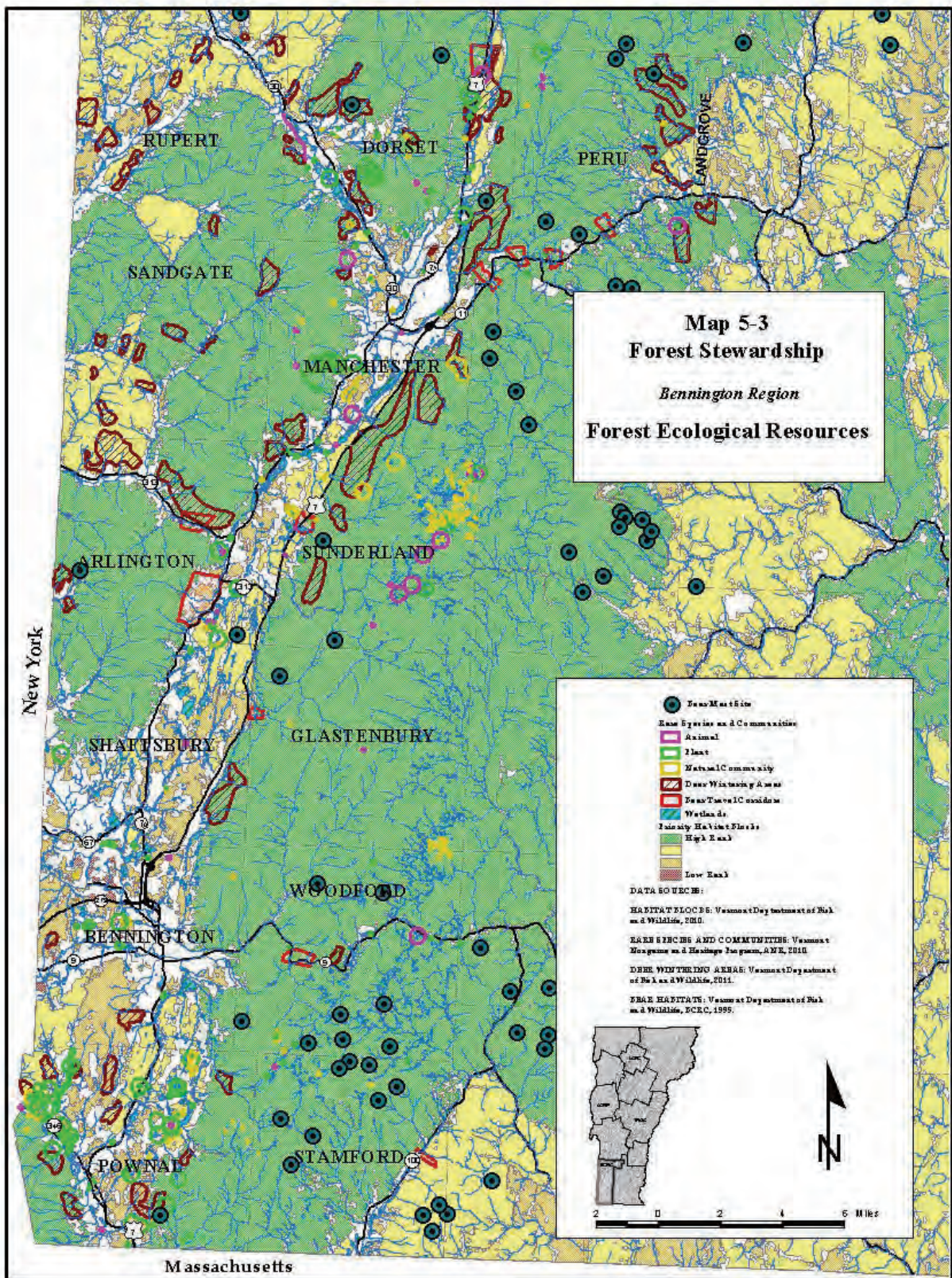
The region’s upland forests provide the environment required to ensure clean water for streams and ponds that support important fisheries. Forest cover along waterways in all landscape zones also moderates water temperature and contributes nutrients to the food chain to support a healthy aquatic ecosystem.

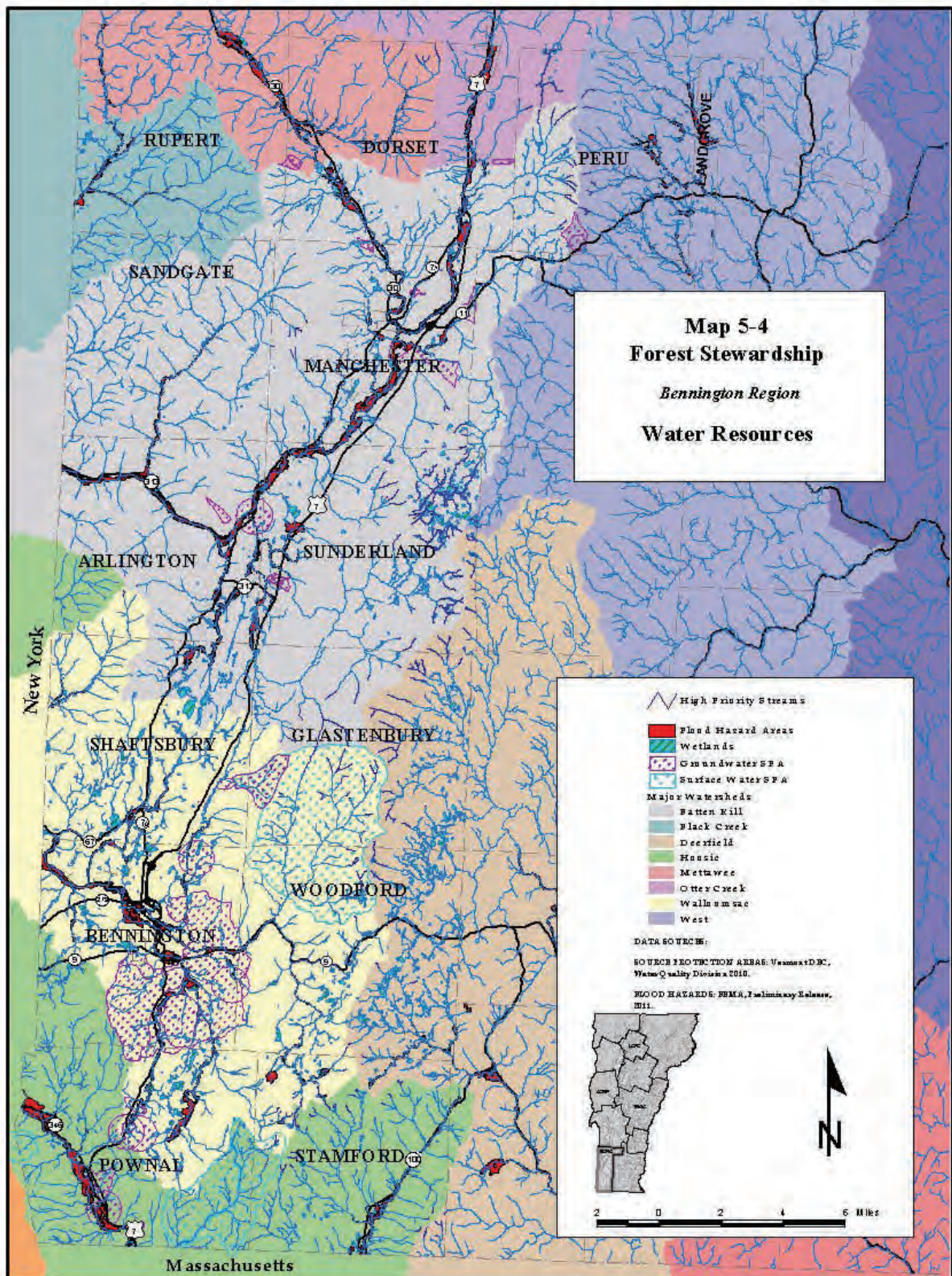


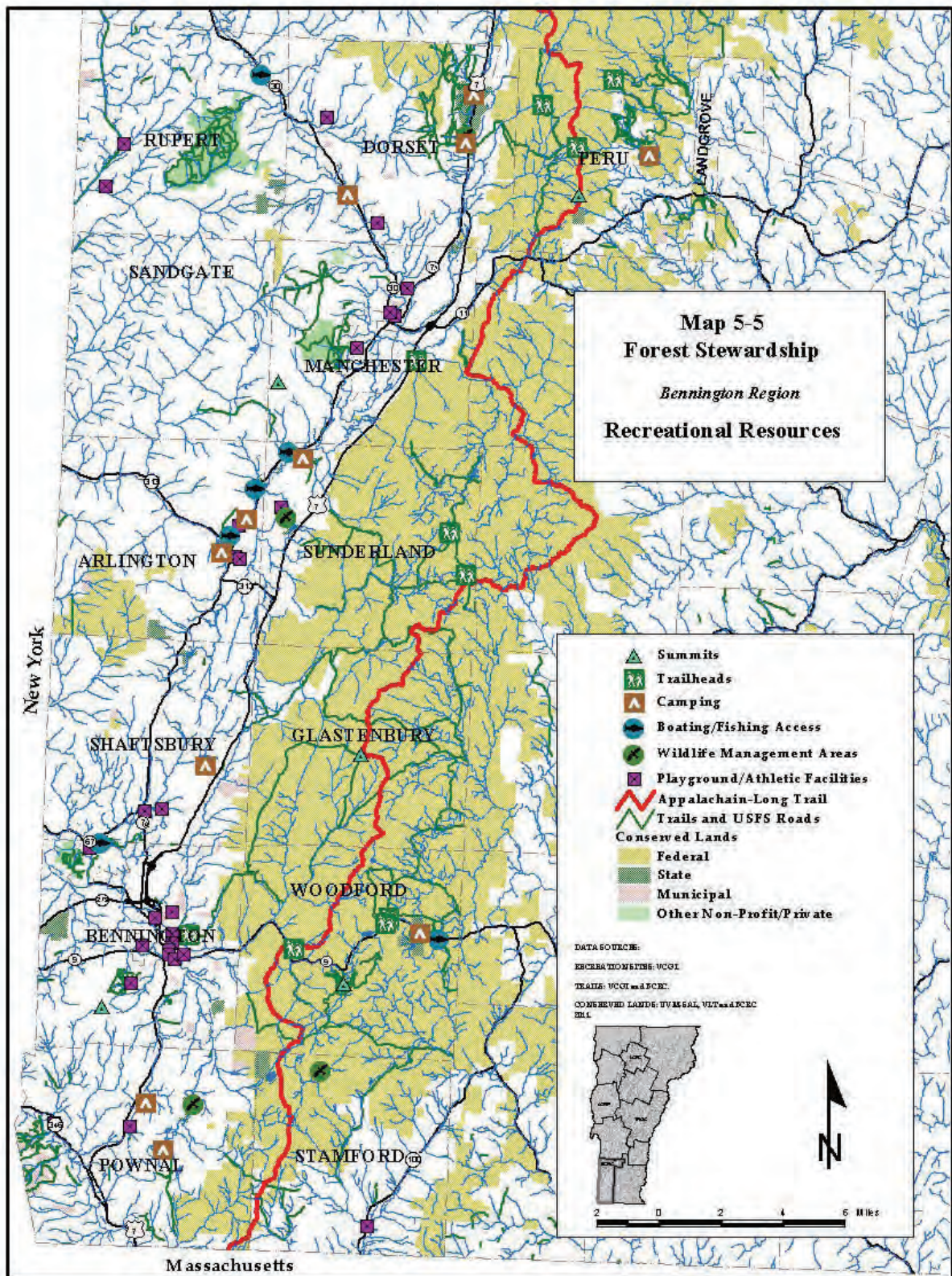
Forest cover along streams, and in other rural valley locations, provides important cover and travel routes for a variety of species.

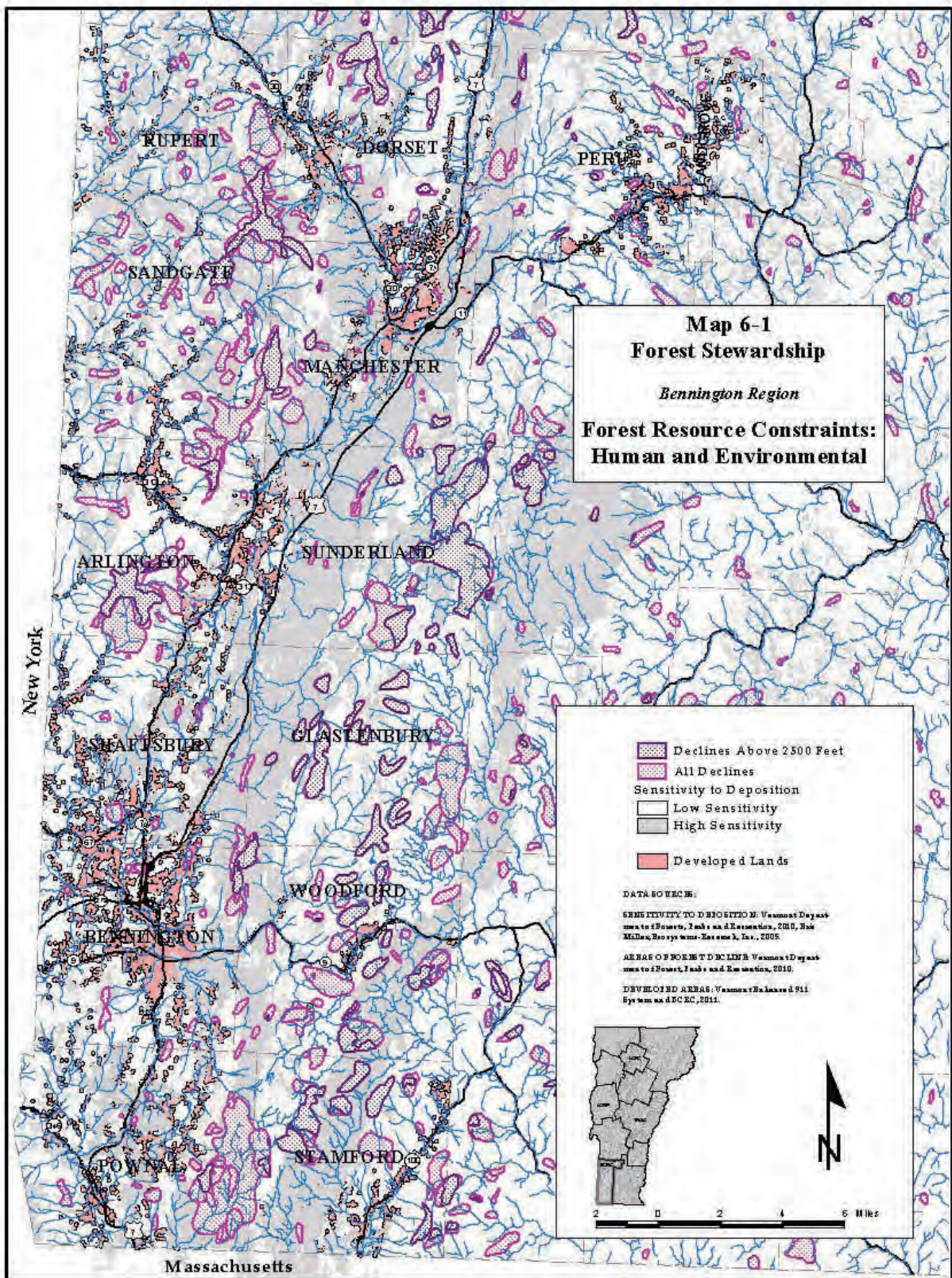
Water Resources

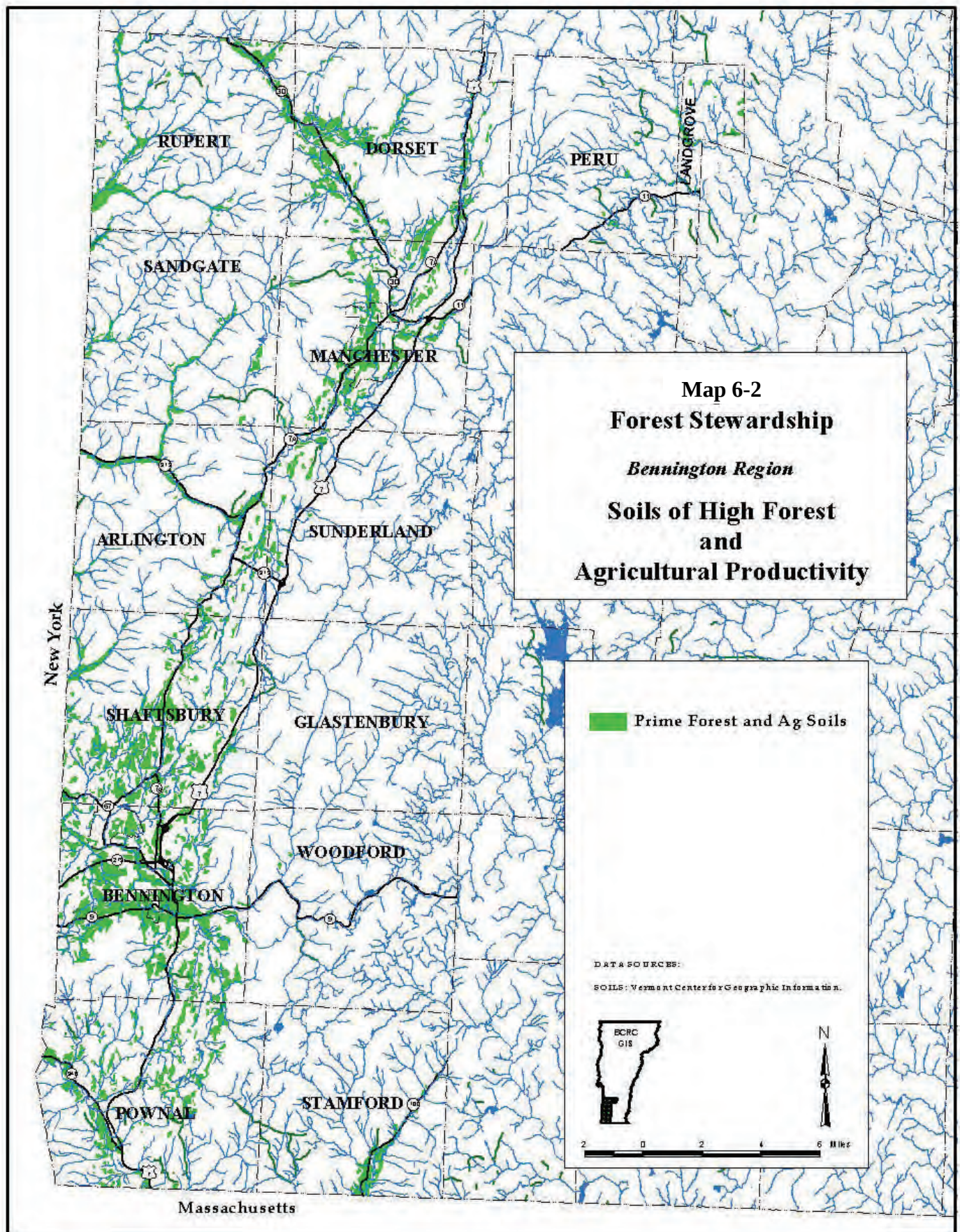
The quality of surface and ground water is essential to the well-being of the area’s population

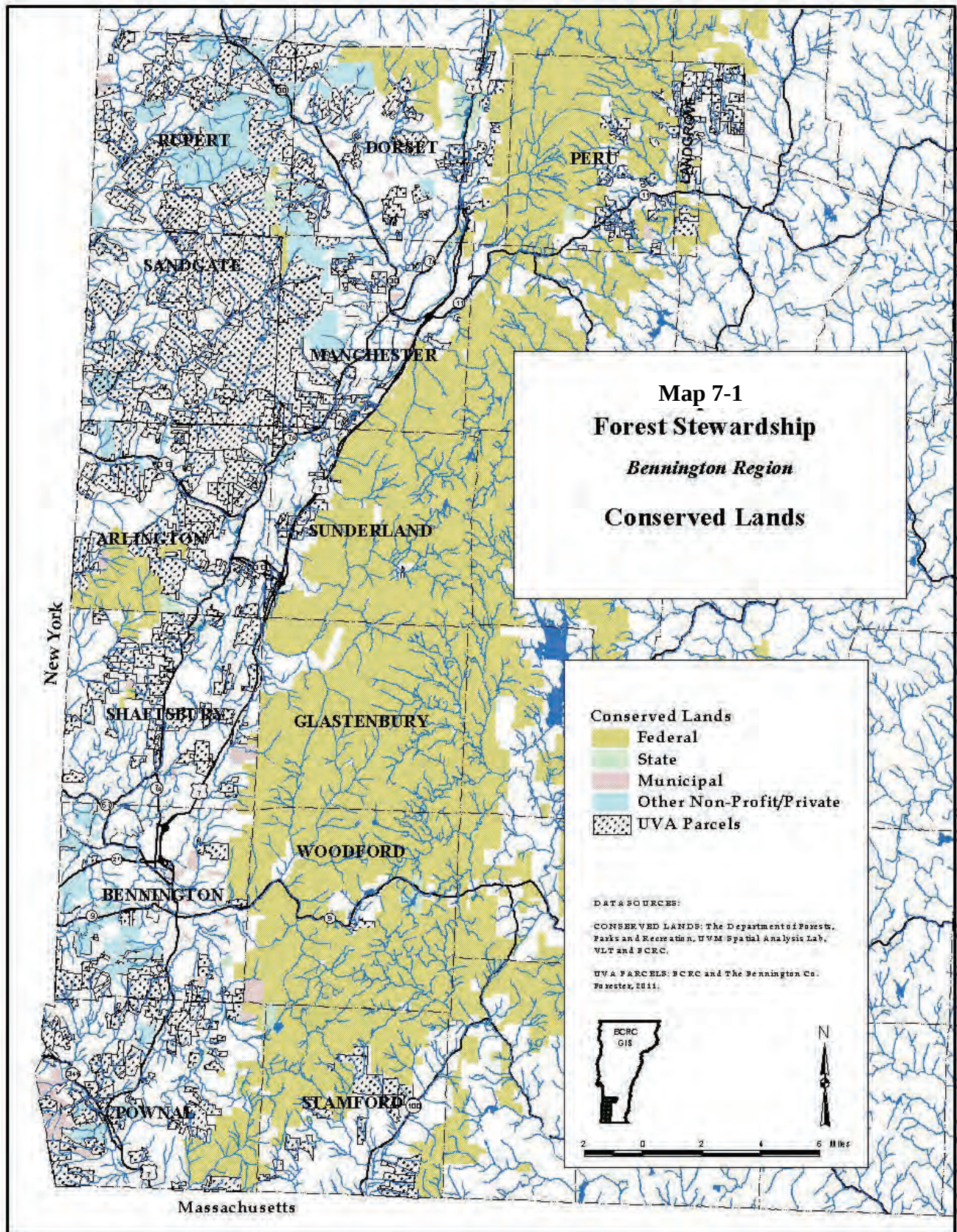












manufacturing to transportation and communication, the feasibility of using wood from the region's forests to generate electricity should be considered as well. Most utilities are now planning for a future electricity generating/distribution system that relies to a much greater extent on a "distributed system" of smaller local generating plants. The Bennington Region requires approximately 50MW of generating capacity; a combination of local hydroelectric, solar, hydroelectric, and biomass generators could meet a majority of that demand. A properly sited and scaled facility could prove to be an important economic asset to the region.

Consideration must be given to the size of the site (for storage and processing of fuels), ease of access for fuel deliveries, availability of sufficient water, and the ability to generate a high net energy yield (i.e., the energy expended in all aspects of electricity production must be significantly lower than the eventual energy yielded by the facility).

IX. Conclusion

The forests that cover much of the region's landscape represent an important part of the area's history, contribute to the unique character of our communities, and represent a significant economic development asset. Extensive unbroken forests cover much of the high elevation and remote areas in the Green and Taconic Mountain ranges, while woodlots, wooded riparian corridors, and other forested landscapes are found throughout the region's valleys and lower elevation hills. Many people interact most directly with the smaller isolated wooded areas that exist in an adjacent to town and village centers. All of these forest landscapes are important, and the conservation and wise use of the resources they contain present challenges that differ according to physical and political geographies. The overriding objective of planning for forest landscape stewardship in the region, however, is to identify key resources, understand and address threats and constraints to the use of those resources, and to provide effective strategies to ensure that those areas provide maximum benefits to our communities.

The values ascribed to the region's forests include; wood and biomass production, fish and wildlife habitat, surface and ground water resources, recreational opportunities, and scenic values. While this plan provided maps and information giving an overview of each of the resource values, the Vermont Department of Forests, Parks, and Recreation has produced a map of overall "forest stewardship potential" that aggregates many of those values for forests located on private lands (Map 9-1). It is interesting to observe that while the "high potential" stewardship lands are found in all landscape types, many are found in rural valleys and near population centers where competing uses may pose challenges for conservation and forest management. Additional threats derive from variety of sources including airborne pollutants, climate change, invasive species and pests, fragmentation of blocks of forest land, and economic conditions that make productive management of forests difficult.

A number of strategies have been employed to help "keep forests as forests" and to retain and



Site plan for a biomass-based electricity generating facility previously considered for a site in Pownal; waste heat from the process would be used in an on-site pellet manufacturing process. A similar project proposed for Fair Haven, Vermont, would also use excess heat to support a 10-acre greenhouse to supply year-round local food.

