

# Chapter One: Land Use

This chapter of the Regional Plan identifies important land resources, and describes land use trends and how they relate to the economic health and quality of life in the region. This section also describes how the use of land relates to the statewide planning goals.

Of the 55 towns in the 3 counties of the Northeast Kingdom, 34 towns have adopted zoning regulations, which provide a framework for future land use in these communities. This Regional Plan seeks to support the land use goals of the towns in the region, while recognizing potential impacts that land use in individual towns may have on regional resources, infrastructure, and economic development.

## I. LAND RESOURCES

### FORESTLAND

According to the National Land Cover statistics, the Northeast Kingdom has more than one million acres of forestland, accounting for more than 80% of the region's land cover.

Local forests provide residents of the Northeast Kingdom with a variety of benefits. The region's forested lands have existed as sources of income since the earliest European settlements and continue to offer significant potential for providing wood for value-added products such as furniture, lumber, wood pulp, and chips and pellets for biomass. Water and air quality, and wildlife habitats are all dependent upon the vast forests. Residents enjoy a variety of recreational activities in the forests as well, and much of the tourism industry relies on a healthy forest to remain viable. Hunting, fishing, snowmobiling, cross-country skiing, mountain biking, and bird and wildlife viewing are all dependent on a healthy forest. Many of these activities coexist well with responsible timber harvesting. Various game and non-game species rely on a landscape that includes forest, meadow, mixed-age trees, and forest edge environments. Snowmobiling, hiking, cross country skiing, horseback riding, and mountain biking often benefit from primitive roads maintained for logging.

Table 1.1 shows estimates for accessible and managed forested acreages for the region and counties. "Appropriate" forestland is defined by the Vermont Department of Forests, Parks and Recreation by subtracting from the National Land Cover dataset acreages with physical barriers to harvesting, or environmentally sensitivities that would render the forest cover inappropriate for harvesting. Estimates for "managed" forestland were developed using USDA Forest Service Forest Inventory and Analysis, as well as general assumptions about enrollment in Vermont's Use Value Appraisal Program (Current Use).

<b>Table 1.1: Forested Acreage</b>			
	<b>Starting Forestland</b>	<b>Acres of Appropriate Forestland)</b>	<b>Acres of Accessible, Appropriate, and Estimates as Managed Forestland</b>
Caledonia	327,121	222,912	132,497
Essex	374,191	258,012	182,909
Orleans	317,602	253,647	156,740
Northeast Kingdom	1,018,914	734,571	472,146
Source: VT Dept. of Forests, Parks and Recreation: <i>Vermont Wood Fuel Supply Study: 2010 Update</i>			

(See the Economic Development chapter for a more comprehensive discussion of Silviculture and sustainable forestry practices.)

**Loss of Forest Cover**

Today’s forest cover is largely the result of more than 100 years of reforestation, which occurred when trees grew over land once cleared for pasture and crops, and timber harvesting declined. For the first time in a century, however, Vermont is losing its overall forest cover. While the loss is hard to quantify, Vermont has lost about 1% of its forest cover over the past decade and continues to lose about 1,500 acres of forest cover each year.<sup>1</sup> While a very small portion of forest cover has been cleared for agricultural or commercial uses, primary cause of forestland can be attributed to large lot rural residential development, which has primarily occurred away from traditional centers of development. (See Figure 1.4: Residential Development from 2005 to 2014) Nearly all of this development has been scattered and incremental and has not risen to the threshold of Act 250 review.

Scattered rural residential development contributes to *fragmentation* of our forested lands, which occurs when contiguous areas of forest cover (also called *forest blocks*) are divided by land development other than recreational trails or uses exempt from regulation.<sup>2</sup> Over time, the cleared swaths and non-forested pockets of land multiply and expand, resulting in disconnected forested islands surrounded by uses that threaten the health, function, and value of those lands as wildlife habitat and as a source of recreation. Subdivision also affects forested lands – even when the land is not converted for development. Long-range *parcelization* trends are likely to affect overall sustainability of our forests because subdivisions often result in tracts too small to support viable forestry operations. Economically and environmentally sound forest management is far more difficult to sustain on parcels smaller than 50 acres. Twenty-five years ago, 19,000 family forest landowners in Vermont owned parcels 10 acres or smaller. By 2012, there were 43,000 family forest landowners.<sup>3</sup>

Although Vermont leads the New England states in support for land conservation, decisive action and a full complement of integrated planning initiatives will be required to stop the loss of forest cover. Vermont statute now emphasizes the need for plans to identify important forest blocks and habitat connectors and recommend policies and strategies that minimize fragmentation to promote the health, viability, and ecological function of forests. Forest blocks are composed of *core* and *edge* areas. “Core forest” is described as

<sup>1</sup> Foster et al (2017). *Wildlands and Woodlands Farmland and Community: Broadening the Vision for New England*, Harvard Forest, Harvard University.  
<sup>2</sup> 24 V.S.A. §4302(35)  
<sup>3</sup> Vermont Agency of Natural Resources

forest that is more than 100 meters from the non-forest boundary. The “forest edge” is the ring around the core. The “edge” has different characteristics and serves as habitat for a different suite of species than the forest “core.”

Given the complexity of the landscape and very different ecological conditions across the state, it is difficult to establish a minimum or maximum number of acres to define a functional forest block. However, forest blocks larger than 20 acres are mapped statewide and can be found in Biofinder (<http://biofinder.vt.gov>) and on the ANR Atlas (<https://anrmaps.vermont.gov/websites/anra5/>). High-value and statewide significant forest blocks are also mapped. (More information about the region’s priority forest blocks and habitat connectors can be found in the Natural Resources chapter.)

### **Forestland Preservation Tools**

**Current Use:** The Vermont Department of Taxes’ Use Value Appraisal Program (also known as “Current Use”) is a tax program designed to support the state’s agriculture and forest products economy. It relieves the burden of property taxes on foresters and farmers by assessing taxes based on the productive value of the land rather than on the land’s potential for development for other uses. While enrollment in current use does place a lien on the property which remains in place until the Land Use Change Tax is paid, it does not place a permanent deed restriction on the property like a conservation easement would. The Land Use Change Tax is due when property is developed or withdrawn from the Current Use program, which provides a significant financial incentive to landowners to keep the land in productive forestry (or agricultural) use rather than develop it for other residential or commercial uses. The land can be developed with structures associated with the farming or forestry use of the property without penalty.

As of January 2016, a total of 3,104 parcels in the Northeast Kingdom region are enrolled in Current Use, comprising a total of 564,556 acres. The vast majority – more than 475,000 acres -- is enrolled as managed forestland.

**Conservation:** While most of the Northeast Kingdom’s forestland is privately owned, state, federal, and local governments own nearly 130,000 acres combined in the Northeast Kingdom (private land with conservation easements is not counted in this figure). These 130,000 acres of publicly owned land are almost entirely forested. Nearly all public lands are open for recreation, with much of the state and privately-owned timber lands actively harvested. Approximately 48,000 acres of this land came into public ownership in 1999, when the Champion International Corporation conveyed its Essex County properties to the Vermont Agency of Natural Resources (nearly 23,000 acres) and the U.S. Fish & Wildlife Service (approximately 26,000 acres).

Vermont Land Trust (VLT) has conserved more than 570,000 acres statewide, and more than 200,000 acres of those lands are in the Northeast Kingdom. More than 90% of VLT conserved lands in the NEK are forested. Much of the land it has protected is privately owned and is conserved through the purchase or donation of a *conservation easement* that permanently restricts future development.

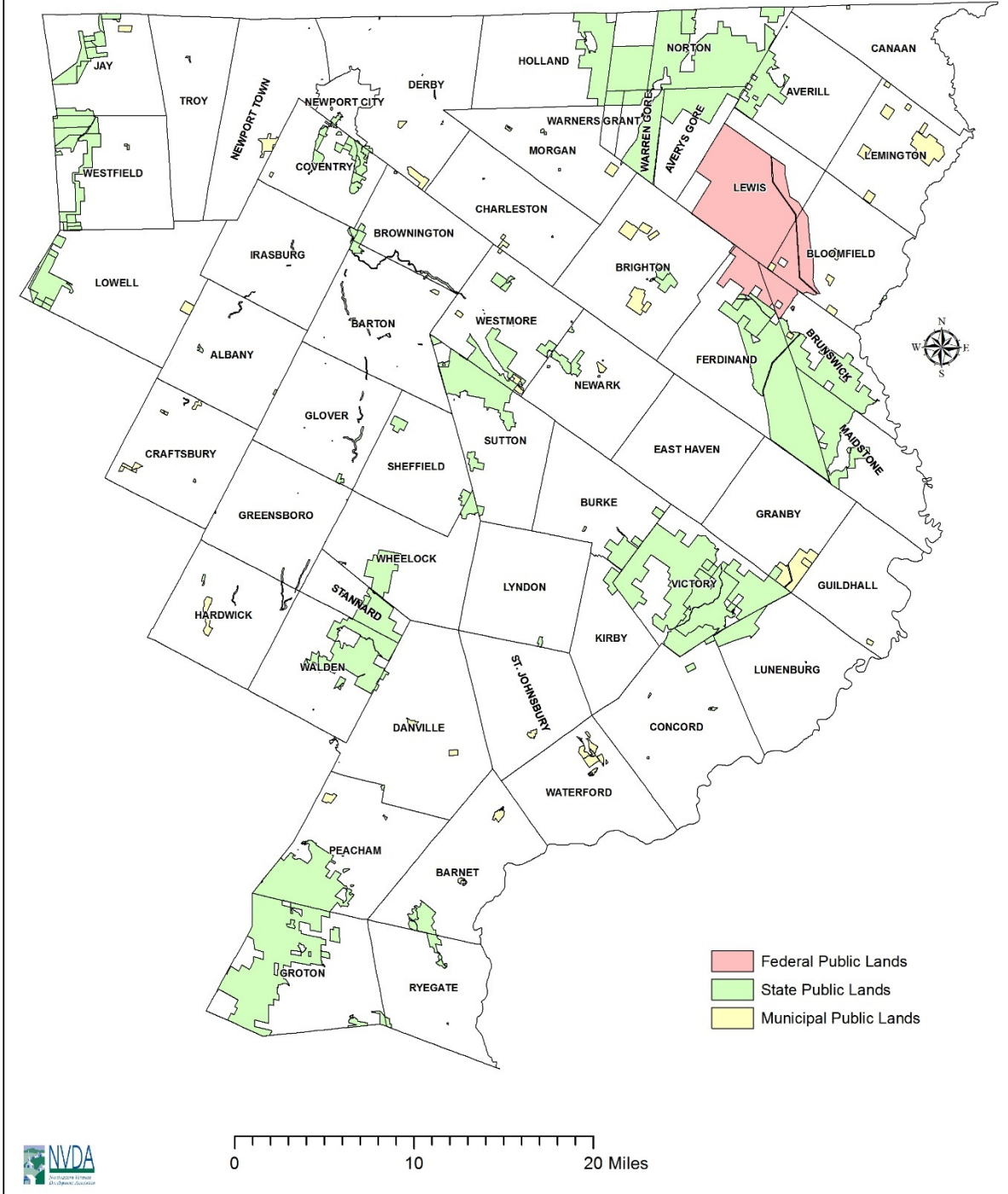
VLT has also played an active role in the creation of town forests. The Vermont Municipal Forest Law – authorized back in 1915 – allows municipalities to acquire lands for the purpose of growing timber or wood. The benefits of town forests also include natural habitat protection and forest block connectivity, water quality protection, and public access to recreation. Town forests can also serve as outdoor classrooms by establishing models for sustainable forestry management. The Northeast Kingdom contains 39 town forests, collectively containing more than 11,000 acres. The most recent addition to the region is the Canaan Community Forest, established in 2012, when the Town of Canaan received 424 acres of forestland donated by the Neil Tillotson Trust. The town has placed a conservation easement on 386 acres, which is designated for sustainable timber management, recreation, education, and natural resource protection. The remaining 56 acres is available to the town for future economic development.

Research to date indicates that municipal forests are largely overlooked in long-range planning endeavors. Roughly half do not have a forest management plan, and many are not even permanently protected from conversion of natural land cover.

# NVDA Region: Public Lands

Figure 1.2

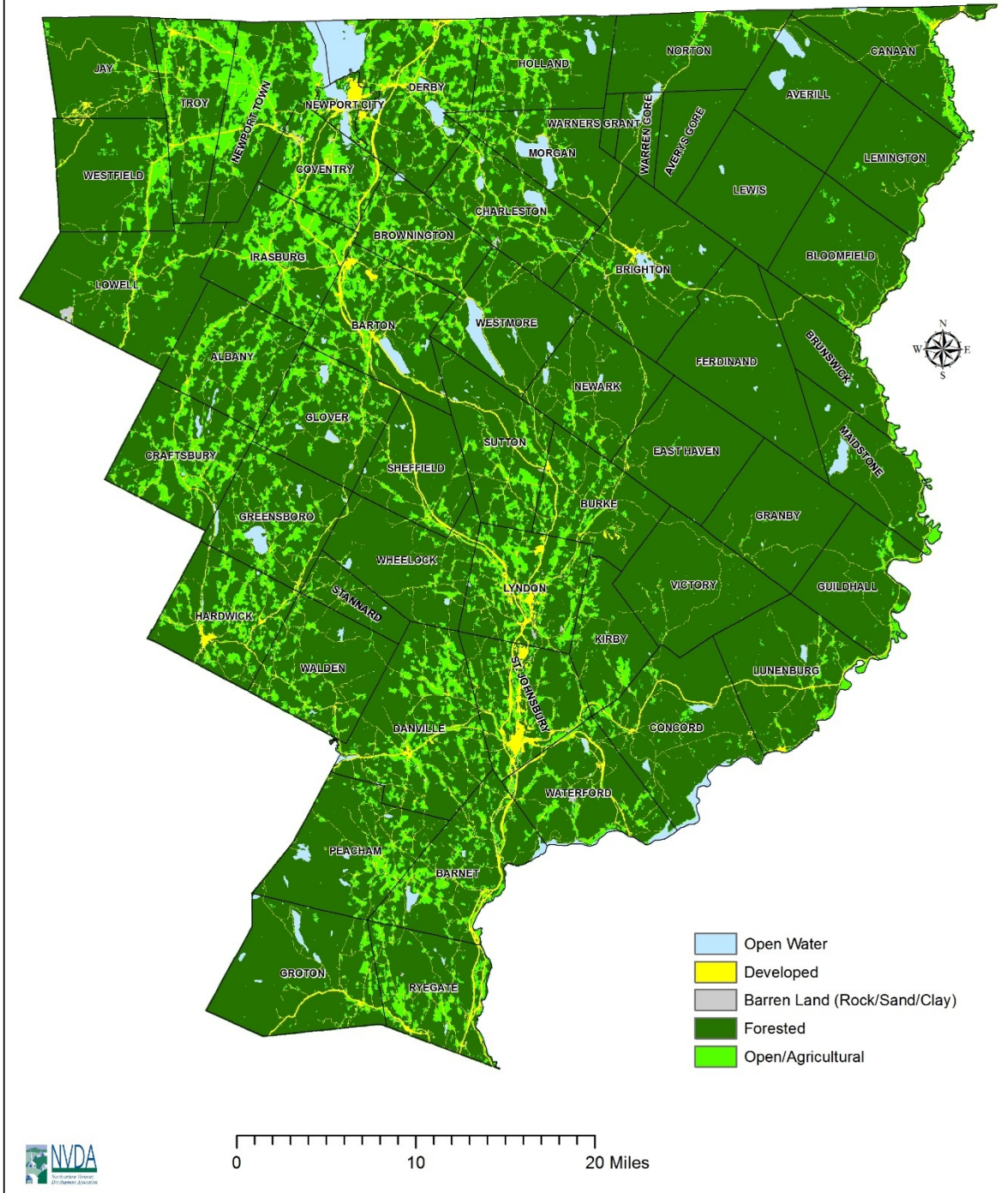
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# NVDA Region: Current Land Use

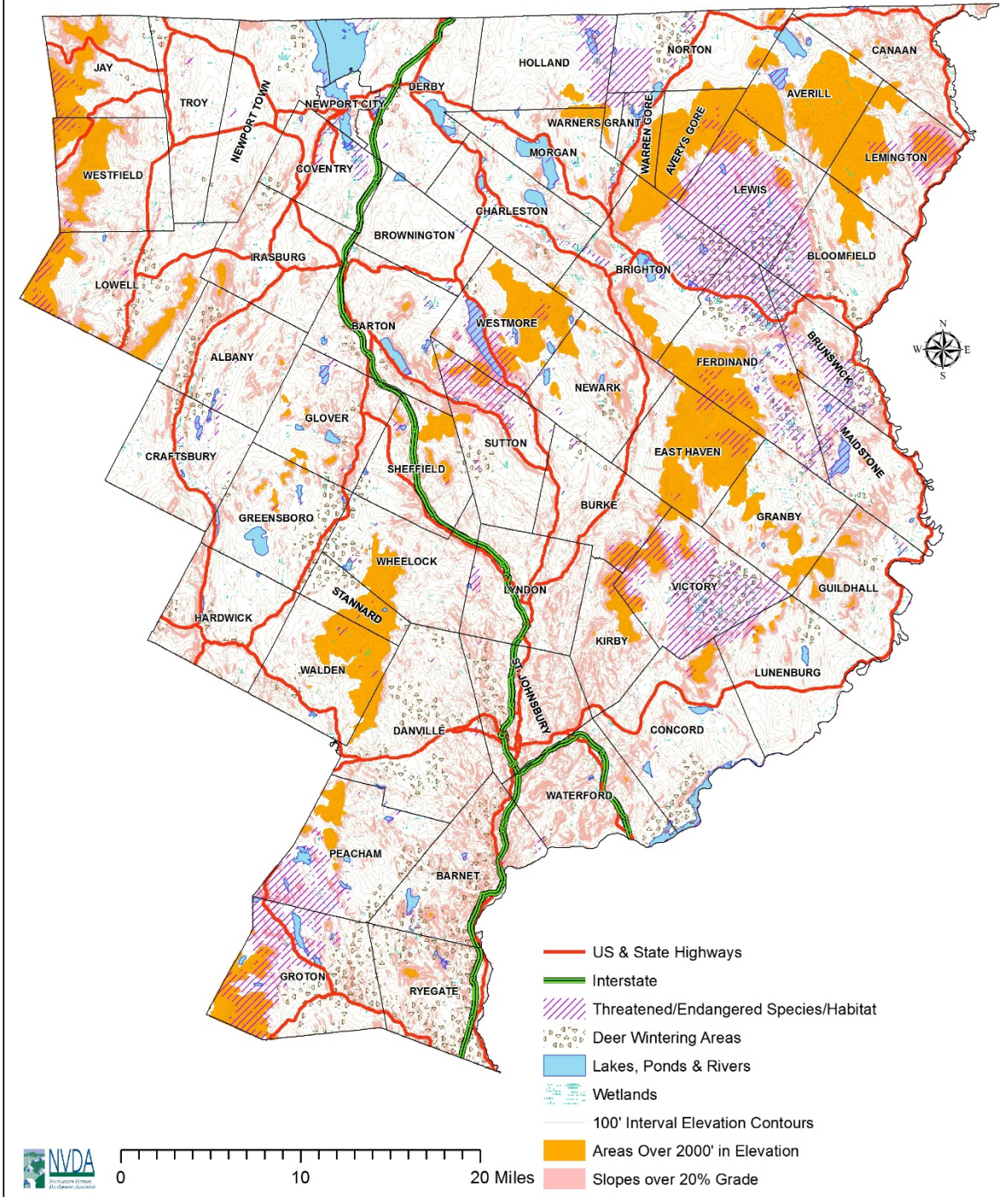
Figure 1.3  
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# NVDA Region: Natural Resource Constraints

Figure 7.1

January 2018

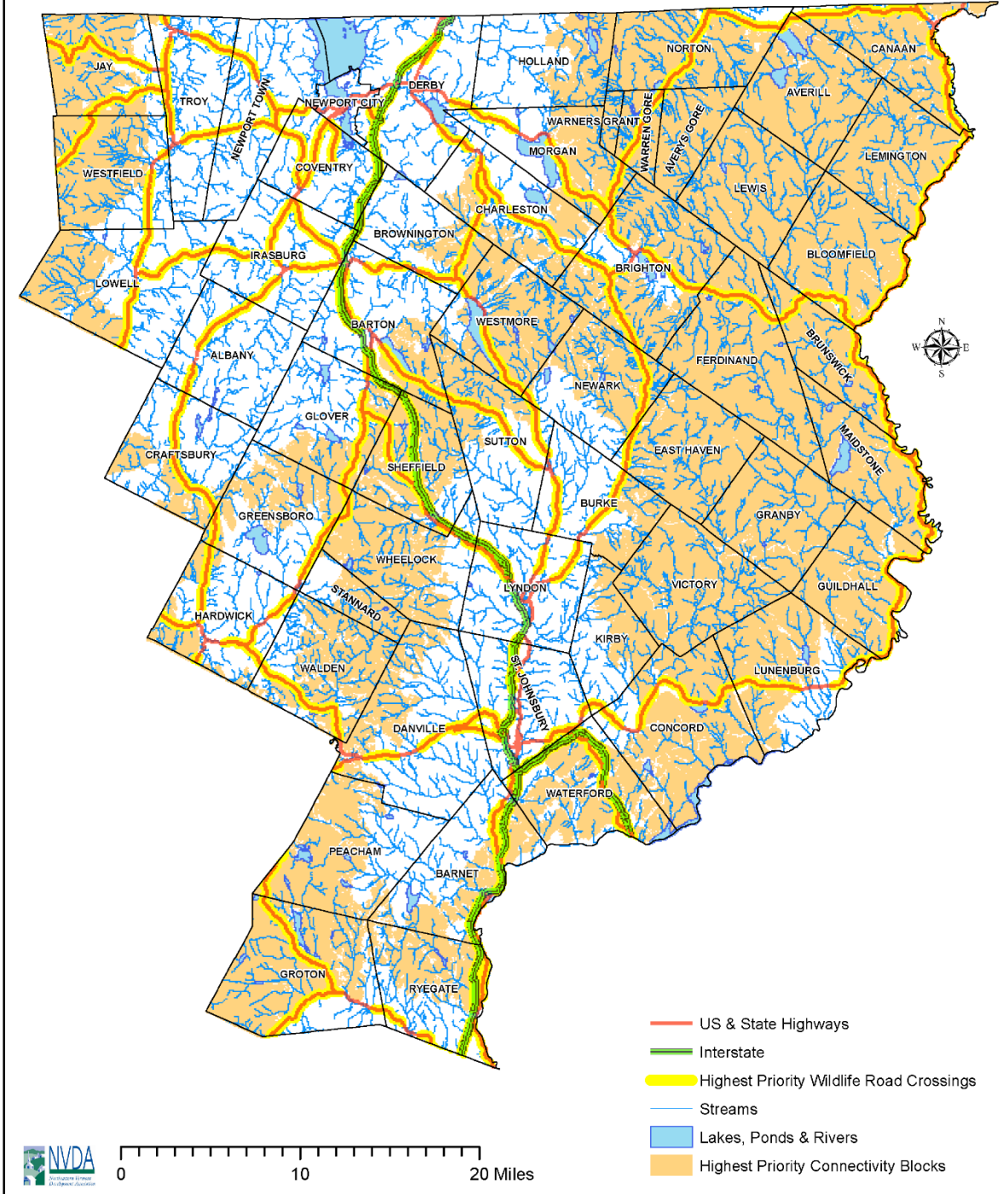




# NVDA Region: Habitat Connectors

Figure 7.x

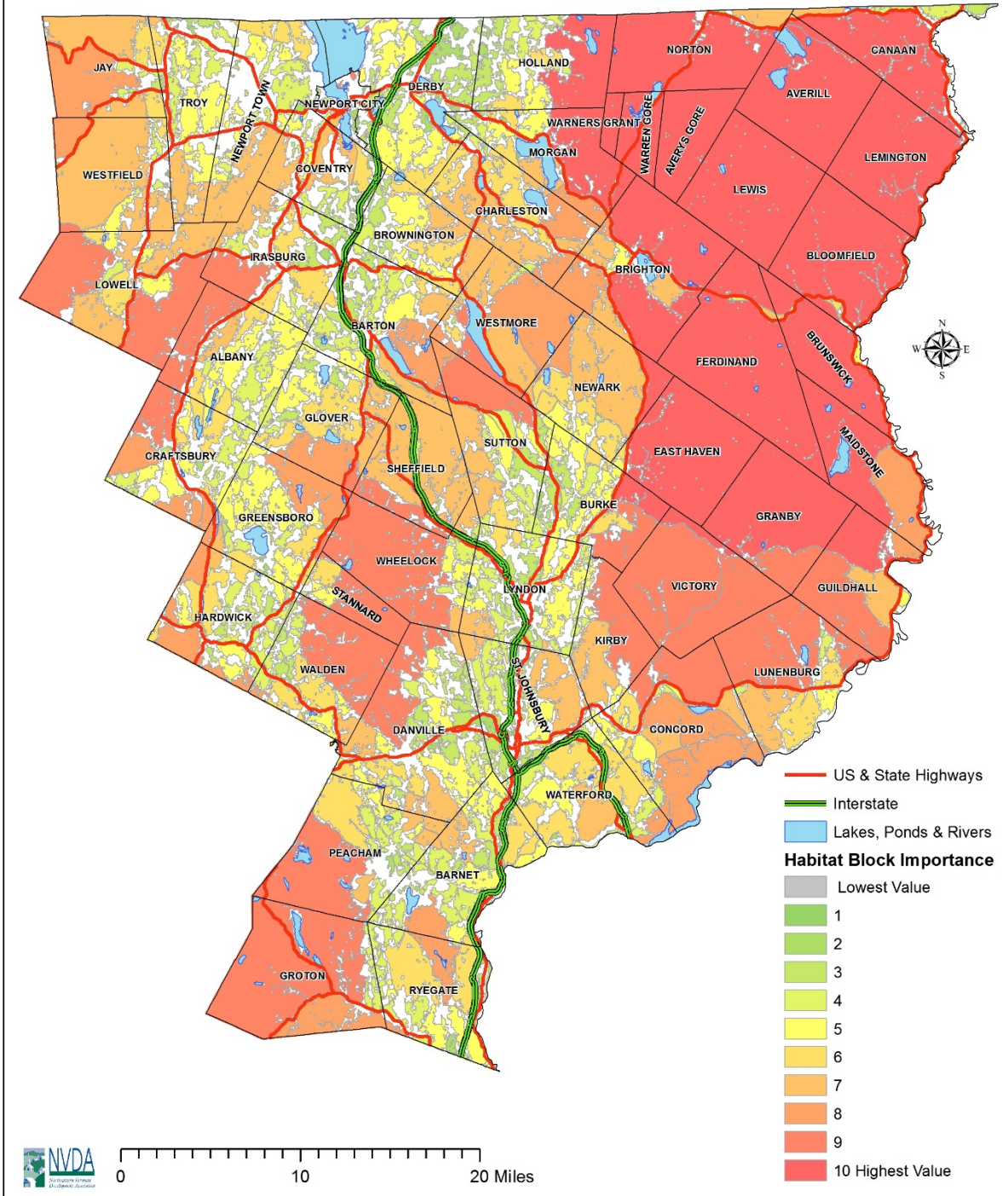
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# NVDA Region: Wildlife Habitat Blocks

Figure 7.4

January 2018





# NVDA Region: Conserved Lands

Figure 7.3

January 2018

