

VERMONT HOUSE COMMITTEE ON ENVIRONMENT AND ENERGY

January 31, 2024 – Vermont State Capitol – Montpelier, Vermont

U.S. DEPARTMENT OF AGRICULTURE – FOREST SERVICE

Northern Research Station, Forest Inventory and Analysis

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Chair Sheldon (Amy Sheldon), Vice Chair Sibilgia (Laura Sibilgia) and Members of the Committee:

Good morning, I am Randall Morin, a research forester with the Northern Research Station of the USDA Forest Service. Thank you for the opportunity to speak before this Committee. I am part of the Northern Research Station's Forest Inventory and Analysis program, which provides information used to assess the status, trends, and sustainability of America's forests.

My remarks today on land use trends will rely upon data from the public databases and tools to provide you with the most up-to-date information. I can provide citations supporting my work upon request. First, I would like to tell you a bit about the Forest Inventory and Analysis program.

The Forest Inventory and Analysis Program has provided authoritative information on our Nation's forest resources since 1930. The program collects, analyzes, and reports information on the status and trends of America's forests. This includes

how much forested land exists, where it exists, who owns it, and how it is changing. Additionally, we can analyze how trees and other forest vegetation are growing; how many trees have died or been removed; and how harvested trees have been used in recent years. This information can be used to help evaluate wildlife habitat conditions, assess sustainability of current ecosystem management practices, monitor forest health, support planning and decision-making activities undertaken by public and private enterprises, predict the effects of climate change, and provide authoritative data to the forest products industry. The Forest Inventory and Analysis program combines all this information with data on insects, diseases, and other types of forest disturbance to assess the current health of and potential risks to forests.

Additionally, these data sets are used by research scientists with USDA Forest Service's Research and Development programs to project what forests are likely to look like in 10 to 50 years; various scenarios are modeled to evaluate whether current forest management practices are sustainable and to assess whether current policies will enable future generations to enjoy the same benefits provided by America's forests today.

Vermont's forested lands

Forest Inventory and Analysis supports the management of the State's forests through collaborative writing and publication of a comprehensive report every five years as well as providing information for the State Forest Action Plan. The most recent data for Vermont were collected during our 2021 field season. It is anticipated that the 2022 data will be posted this year, in 2024.

In Vermont, federal field crews implement the same inventory sampling procedures that are utilized across the United States. One plot is sampled for every 6,000 acres of non-federal land and National Forest System Lands are sampled with one plot every 2,000 acres.

Vermont has a diverse, forested landscape that includes the transition from the maple/beech/birch forests of the northeastern United States to the spruce/fir forests of northern New England. Forested land dominates the state of Vermont, which is the fourth most forested state by proportion of total land area.

The first inventory of Vermont's land was completed by the Forest Inventory and Analysis program in 1948; at that time, only 63 percent of the State's land area was forested. Subsequent inventories have showed a steady increase in forest cover as lands were reforested after farmland was abandoned.

Vermont's forested land base increased rapidly between the 1940s and 1970s and continued to increase, although at continually slower rates, until reaching its peak in the 1990s. Much of the nearly one million acre increase in forest land over that period was due to farmland reverting into forest through natural regeneration, while a substantial portion of abandoned farmland was also developed to meet the needs of a growing population. These reverted forests increased the total forest land area in Vermont and nearly offset losses of forest land to development. Since 1997, the area of forest cover has declined by nearly 100,000 acres, with more than half of that loss occurring since 2007. Based upon repeated visits to plots over the last 15 years, approximately twelve to fourteen thousand acres of Vermont forested land is transitioned to non-forested lands annually. Some of those conversions are offset by reversions of other land uses to forest land which results in annual net losses of forest land ranging from eight to twelve thousand acres. The current estimate of forest land in Vermont is 4.53 million acres.

There are two other indicators that can indicate future land-use change away from forests: landowner demographics and housing density. Approximately 78% of Vermont's forested land is privately owned with the majority being held by private citizens (i.e., family forest owners) and the average family forest holding size is 63 acres. Results from the National Woodland Owner Survey in 2018 found that "keeping land intact" was the second most selected concern of family forest

owners, but the average age of family forest owners, 65 years old, indicate that many acres of land will be passing on to the next generation in the not-too-distant future. Finally, the proportion of forested land located in census blocks with housing densities above six homes per square kilometer, which has been associated with forest fragmentation and loss of forest habitats, has been increasing in Vermont for the past few decades from five percent in the 1990s to ten percent in the 2000s. This has resulted in nearly one-third of forested land now being located within the wildland-urban interface.

Conclusion

I would like to thank you once again for the opportunity to speak to this committee today, Chair Sheldon. This concludes my remarks, and I would be happy to answer any questions about my presentation.