

To: Senate Committee on Natural Resources and Energy

From : Jamey Fidel, General Counsel and Forest and Wildlife Program Director, Vermont Natural Resources Council

Date: April 13, 2022

Re: H.606

Thank you for the opportunity to testify on H.606 - an Act relating to community resilience and biodiversity protection. Today I am testifying in support of H.606 on behalf of Vermont Natural Resources Council, and the Forest Partnership, which is comprised of VNRC, Audubon Vermont, the Vermont Land Trust, the Vermont Chapter of the Nature Conservancy, Trust for Public Land, and Vermont Conservation Voters.

Background in Support of H.606:

Vermont is the 4th most heavily forested state in the country, and while 74-75% of the state is covered by forests, a closer look reveals that our forests are being converted and fragmented by rural sprawl.

The breaking up of large parcels of land into smaller and smaller parcels is a significant issue, and the outright conversion of forestland is a growing concern in Vermont and the region for the climate resiliency implications, and other considerations such as continuing loss of ecosystem services, biodiversity, and working lands.

While it is hard to pin down the exact amount of forest acreage that has been lost to development, for the first time in a century our forests are declining in extent. For example:

- An estimated 14,746 acres of forestland is being converted on an annual basis to development.¹ At this rate approximately 427,634 acres of forestland will be converted by 2050.²
- A report published by the Vermont Natural Resources Council in late 2017 reveals that according to Grand List data, undeveloped woodland as a land use category in Vermont decreased by about 147,670 acres from 2004 to 2016 while residential acreage increased by almost 162,670 acres. During the same study period, parcels less than 50 acres in size with houses increased by 20,747 parcels. This highlights an increasing trend in Vermont; undeveloped land is being converted to residential development with dwellings and associated infrastructure, and smaller parcels are being created through the fragmentation and parcelization of forestland from subdivision and development.³

¹ USDA Forest Service. 2020. Forests of Vermont, 2019. Resource Update FS-243. Madison, WI: U.S. Department of Agriculture, Forest Service. 2p. <https://doi.org/10.2737/FS-RU-243>.

² The USDA Forest Service estimates 2,652 acres of nonforest revert to forest every year, so the overall net reduction of forest may be closer to 350,726 by 2050. *See id.*

³ Fidel, J., McCarthy, K., & Voigt, B. (2018, October 2). *Tracking Parcelization Over Time: Updating the Vermont Database to Inform Planning and Policy (Phase III Report)*. Retrieved from <https://vtforesttrends.vnrc.org/reports>

This forest loss is resulting in decreased carbon sequestration and storage in our forests, and increased carbon emissions. For example:

- The 2017 Vermont Forest Carbon Inventory documented that “The total annual (carbon) uptake was less in 2015 [the end of the period of analysis] than in previous decades, in part due to decreasing acres of forest land.”⁴
- A more recent forest carbon inventory confirmed that land-use change has resulted in net emissions in Vermont, which is concerning because forestland that is converted not only emits stored carbon, but it also reduces future forest carbon sequestration.⁵
- A new analysis conducted by researchers at Clark University for the US Climate Alliance Natural and Working Lands Research Program documents that forest loss in Vermont from 2000-2009 resulted in emissions of 0.15 million metric tons of CO₂ equivalent (MMT CO₂e) per year and 0.03 MMT CO₂e per year of foregone sequestration. This CO₂e impact from forest conversion is equal to 3% of statewide carbon sequestration occurring within all of Vermont’s remaining forestlands, or 3% of the state’s fossil fuel emissions across all sectors in 2018.⁶

Because of the benefits that forests provide, keeping Vermont’s forests as forests and reversing the rate of forestland conversion and fragmentation is one of the most important climate policies Vermont can employ. In addition, planning to maintain a resilient and connected landscape with large forest blocks with connected habitat is an established priority for land managers, state and federal agencies, legislators, and many non-governmental and forestry entities. As recognized in the findings of the Global Warming Solutions Act:

(7) According to the Vermont Agency of Natural Resources, the conservation and restoration of Vermont forests, floodplains, and wetlands and the promotion of forest management and farming practices that sequester and store carbon are critical to achieving climate mitigation, adaptation, and resilience and support a host of co-benefits, such as improving air and water quality, economic vitality, ecosystem functions, local food systems, and creating more climate resilient communities and landscapes.”

Specifically, the concept of conserving and restoring forests is not a new concept to mitigate the effect of Climate Change. In 2007, Governor Douglas’s Commission on Climate Change prioritized keeping forests as forests, and reducing the rate of forestland conversion was ranked as the second most favorable action out of 38 policies to reduce greenhouse gas emissions in Vermont. As explained in the report:

“Central to curbing the state’s greenhouse gas emissions is the conservation of Vermont’s significant existing “Green Bank” – our working landscape, our abundant forests, our maintenance of open land. Indeed, Vermont’s most precious and

⁴ Figure 2 at https://fpr.vermont.gov/sites/fpr/files/Forest_and_Forestry/The_Forest_Ecosystem/Library/Forest%20Carbon%20Inventory%20Mar%202017_final.pdf

⁵ Kosiba, AM. 2021. Vermont Forest Carbon Inventory. Vermont Department of Forests, Parks and Recreation.

⁶ Williams, CA et al. 2021 (in press). Avoided Deforestation: A Climate Mitigation Opportunity in New England and New York. Report prepared for US Climate Alliance Natural and Working Lands Research Program.

effective mechanism for countering climate change is our forested landscape, which represents nearly 80% of the state's land area and provides us all with a rich array of collateral services, such as clean water, stable and fertile soils, and a vibrant recreation and tourism industry, that benefits both the culture and economy of our state.

The recently developed Climate Action Plan (CAP) underscores support for land conservation. The CAP specifically endorsed the following strategy:

Invest in strategic conservation in order to increase the pace of permanent conservation towards 30 by 30 targets (described in federal report “Conserving and Restoring America the Beautiful”), with Vermont Conservation Design acting as the guiding plan for prioritization of efforts.

Finally, the need to maintain a resilient landscape is directly tied to maintaining biodiversity as species come under direct pressure from a changing climate. According to the Vermont Climate Assessment 2021, as climate change worsens, 92 bird species in Vermont, including the hermit thrush and the common loon are expected to disappear from Vermont within the next 25 years.⁷

Comments on H.606:

- We support efforts in the bill to develop a plan to advance the CAP's goal of increasing the pace of land conservation, in addition to broad planning to maintain a resilient landscape in Vermont.
- VNRC and The Forest Partnership agree that the value of our forests lies in their broad uses, supporting biodiversity, community and climate resilience, as well as our outdoor recreation industry and working lands enterprises. These values are underscored in many of land use planning goals in state statute, and Vermonters consistently and overwhelmingly support maintaining open space and working lands when polled.
- The Forest Partnership supports engaging willing landowners to advance land conservation targets and promote sustainable management practices, which together support biodiversity and community and climate resilience. According to information from the Vermont Housing and Conservation Board, current demand for VHCB projects for farmland and conservation lands exceeds available funding by a 2 to 1 ratio in a typical year. This highlights the ongoing need to advance conservation efforts to meet the demand of willing landowners.
- We support the goals in H.606, advancing permanent conservation of working lands and natural areas, and creating a framework for maintaining a resilient landscape employing a suite of diverse tools using Agency of Natural Resources' Vermont Conservation Design as a guide.
- Finally, the Forest Partnership supports the vision in the bill to engage a diverse stakeholder group to build support and determine how best to achieve land conservation targets, and the VCD goals.

⁷Vermont Climate Assessment 2021 available at <https://site.uvm.edu/vtclimateassessment/files/2021/11/executive-summary-11-3-21.pdf>