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MEMORANDUM

TO: Rep. Amy Sheldon, Chair, Act 47 Commission

FROM: Michael Snyder, Commissioner, Forests, Parks and Recreation

DATE: November 7, 2018

RE: Act 250 and forest products value adding

Thank you for the chance to share and discuss forest policy issues and their nexus with Act 250. This memo provides basic context summarizing input and experience of affected parties and outlines key issues related to the permitting of forest products enterprises and provides recommended solutions for each. In addition, we have provided supporting background information related to the current status of Vermont's forest economy. Deputy Commissioner Lincoln and I very much appreciate your interest in these topics and we look forward to answering your questions about them and to working with you to act upon them.

Background

The Act 250 vision has benefited Vermonters and our amazing landscape in incalculable ways. Working forest and agricultural lands form the majority of that landscape and are the foundation of Vermont's iconic backdrop and cultural identity. This land produces commodities that must have value added through processing as products make their way to the consumer. Increasing value is what differentiates our rural economy from the subsistence way of life of our ancestors and the revenue created enables stable land ownership and employment and investment in the best practices of today and the future. While the benefits of Act 250 are commonly understood, particularly its intent to conserve working land in the largest blocks possible, there are some trends in our environment and forest economy that warrant the Act 47 Commission's consideration in planning for the next 50 years.

Working forest and farm lands produce high volumes of low value commodities. Harvested trees must be transported and processed to be converted into retail goods, increasing their value and sustaining the local economic activity necessary to support the supply chain continuum and the environmental and community benefits that this continuum, in turn, supports.

Logging below 2,500 feet elevation, farming, and maple production, are all activities exempt from Act 250 jurisdiction -- the logistical, seasonal, and weather-related challenges that are inextricably linked to the production of working lands commodities make the existing Act 250 exemption essential for their survival. But the subsequent processing and value-adding of forest products is not exempt. Typical Act 250 permit conditions for such enterprises, such as limiting traffic, noise, and hours of operation -- for operations that at times must work seven days a week or around the clock for certain periods when the

conditions are most appropriate for harvesting the related raw product – have posed significant challenges (see below) to existing and proposed enterprises and have the potential to quickly eliminate the viability and operability of such working lands businesses. Vermont’s Comprehensive Energy Plan calls for 35% of the state’s energy needs to be derived from wood by 2035 which will require confidence and predictable investments in new technology and reinvestment in Vermont’s rural forest-based economy. Members of this industry have expressed concern with respect to Act 250 permitting indicating that investment in this sector has been suppressed due to these concerns. As such the following solutions are proposed.

Issue 1: Operational challenges under current and future climate conditions

For best environmental outcomes, forest operations must occur when ground and road conditions are appropriately dry or frozen. The average logging contractor can produce timber for 180-200 days per year to supply sawmills, wood energy facilities (firewood, wood chips, pellets), log yards, etc. that need to operate year-round. As our weather patterns become less predictable, so does operating a land-based business. Extended periods of unworkable weather in the woods that are preceded or followed by suitable conditions require additional production hours as these businesses cannot simply add machines or employees to sustain their operations. Permittees have experienced restrictions on the hours or days that raw materials can be delivered to their facilities that can starve them of the products they need. These operations need flexibility for trucks to deliver raw materials at night, on weekends or holidays. Enterprises that produce wood energy products also need the ability to deliver to customers that are out of fuel outside customary business hours. And, this flexibility must be balanced with protections against undue harm to neighbors.

Proposed Solution: Create new guidance, application guide, and a permit template for forest economy projects

The legislature should direct the Natural Resources Board to create guidance for Act 250 district commissions on this issue, develop an Act 250 application guide for forest economy enterprises, and most importantly, develop and implement a new Act 250 permit template for forest economy enterprises with default permit conditions that anticipate and provide a reasonable opportunity for the off-hour receipt of forest product deliveries.

This new permit template would not restrict hour or days that raw materials can be delivered to these enterprises, unless those with party status request limiting permit conditions with cause.

In cases where a party seeks conditions that limit the time or day of deliveries and the district Commission chooses to prescribe such conditions, the new permit conditions must allow for a certain number of hours per week where deliveries are unrestricted. This allotment could be determined by the needs of the specific operation but will generally allow for at least 60 days per year where off-hour (between 6pm – 7am, or on weekends and holidays) delivery of raw materials can occur and also allow for trucks leaving with wood energy products and returning to these enterprises during off-hours. In support of this proposal, the legislature should make findings establishing that including flexibility in permit conditions for off-hour deliveries of forest derived commodities to these enterprises and allowing for trucks to exit and return while delivering wood energy products does not constitute an undue adverse impact on aesthetics as it relates to 10 V.S.A. § 6086(a)8.

While a new permit template with reasonable allowances for off-hour deliveries of forest products should largely address this issue for newly permitted enterprises, it will not help existing facilities already subject to delivery restrictions. The legislature should consider procedural and legal pathways to provide this operational flexibility to existing permitted enterprises and we ask the Commission to acknowledge in their report and any subsequent legislative proposal that this flexibility is intended to apply to both newly permitted and existing permitted enterprises.

Issue 2: Soils mitigation

Clearly, the existence of enterprises that add value to forest-derived commodities relies on the perpetuation of undeveloped and sustainably managed land. Conversely, and as corollary, undeveloped and sustainably managed forest land relies on the existence of value-adding facilities that provide this “conservation effect.” Accordingly, assessing mitigation fees to applicants who are investing in adding value to forest-derived commodities – and thereby keeping forests forest -- is counterproductive. Recent examples of mitigation costs incurred for these enterprises have shown it is a deterrent to further investment in the forest economy. Managing forestland improves forest health, resilience, and commodity value and in this way management activity is a force multiplier in keeping forests forested. Lower value commodities, such as pulpwood and woodchips, are worth \$4-\$20 per cord in stumpage to a landowner, but average sawlog stumpage values in Vermont range from \$38-\$157¹ per cord. Sustainably managing forestland by harvesting lower value trees in the present to create greater health and value in the future, is just one of many components needed to build confidence to hold and aggregate forestland in larger tracts well into the future.

These enterprises are often sited in rural areas, where there are no industrial parks and the economic model cannot support the purchase of high cost real estate where other industrial activity is concentrated.

The following formula is an example of the “conservation effect” that a market for forest derived commodities creates.

	Forest Harvest	Value ² Paid to Forestland Owners
Yield per acre from a 20 year harvest schedule assuming 1/3 stocking removed	3.7 cords/acre	\$4 - \$157/cord
Annual Forest Product Value Adding Enterprise Throughput	10,000 cords/year	\$40,000 - \$1,570,000
Area of “Woodshed” (area needed to source throughput)	2,700 acres	
Conservation Effect Over 20 Years	54,000 acres	\$800,000 - \$31,400,000

Proposed Solution: Establish a “conservation credit” for enterprises that add value to forest derived commodities in Criterion 9(B) and 9(C)

Currently an applicant would need to provide on-site mitigation or pay into a fund for offsite mitigation. Given the direct critical supporting relationship these enterprises have to land use, the operation of

¹ Based on the average of the last four quarters of Maple and Ash sawlog values in the Vermont Stumpage Report for hardwood sawlogs.

² Based on the stumpage range from low to high - \$4 - \$157 per cord

these enterprises effectively conserves more land than a mitigation fund reasonably could. Therefore, we believe some percentage of the effectively conserved land should be credited back to the operation and serve as an alternate form of mitigation for impacts to forest and agricultural soils.

For example, if a project proposing to use ten acres of forest or agricultural soils for a facility that would use 10,000 cords of wood annually (or equivalent), they would need to mitigate up to four times that area, or 40 acres. However, that same operation already maintains 2,700 acres annually through the 10,000 cords that they add value to, which far exceeds the 20 acres that would otherwise be required.

Therefore, we recommend an alternative mitigation option for enterprises that will add value to forest derived commodities, whereby projects that will utilize land that is mapped as prime agricultural or prime forest soils, each board foot, cord or ton that they will add value to shall be considered in calculations of on- or off-site mitigation at the following rate:

- For every 1,000 cords or equivalent tons or board feet of annual throughput that an enterprise will add value to, a credit of 27 acres conserved or mitigated will be applied (basing the conservation effect on just 1% of the annual acres required to supply that enterprise)
- An enterprise adding value would be defined as primary processing or aggregation of forest products including; sawmills, kilns, firewood, fuel wood, wood chip and pellet production, log and pulp concentration yards.
- Forest product means logs; pulpwood; veneer; bolt wood; wood chips; stud wood; poles; pilings; biomass; fuel wood; maple sap; or bark.

See Appendix on following pages.

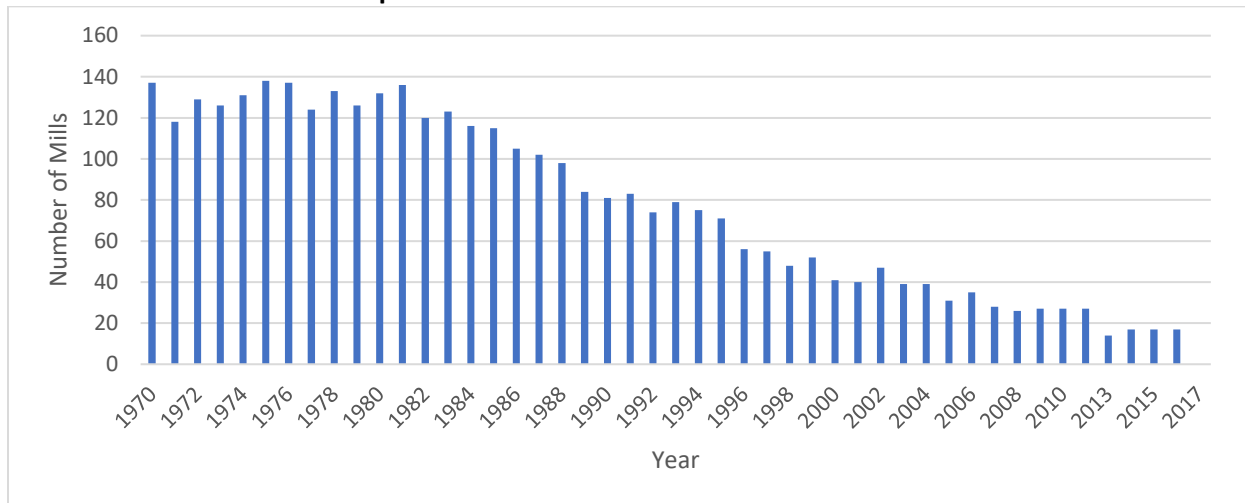
APPENDIX: Supporting/Background Information

The recent market collapse of the paper industry in Maine and growth in sawlog exports to Asia has exposed how vulnerable Vermont’s forest economy supply chain and forestland ownership patterns are to external forces. Over time, Vermont has externalized processing of forest-derived commodities and thereby negatively impacted our rural economy and put forestland at risk of parcelization and fragmentation. Currently, our raw commodities must be transported farther to remaining markets than if we were to incentivize more use of them within our state’s borders or opportunities to expand existing enterprises. If Vermonters do not address the challenges that exist locally for adding value to forest-derived commodities, there will be more reliance on exports and our forests will be subject to more volatility in the global marketplace.

Table 1. Markets for forest-derived commodities in the Northeast³

	Sawmills ⁴	Paper and Clean Chip Mills	Pellet Mills	Biomass Electricity Plants
Connecticut	8	1	0	1
Massachusetts	15	5	0	1
Vermont	17	0	1	2
Maine	42	6	5	6
New Hampshire	49	6	3	8
New York	77	2	8	3
Pennsylvania	82	7	11	2
Quebec	131	6	8	7

Table 2. Vermont sawmills in operation 1970-2016

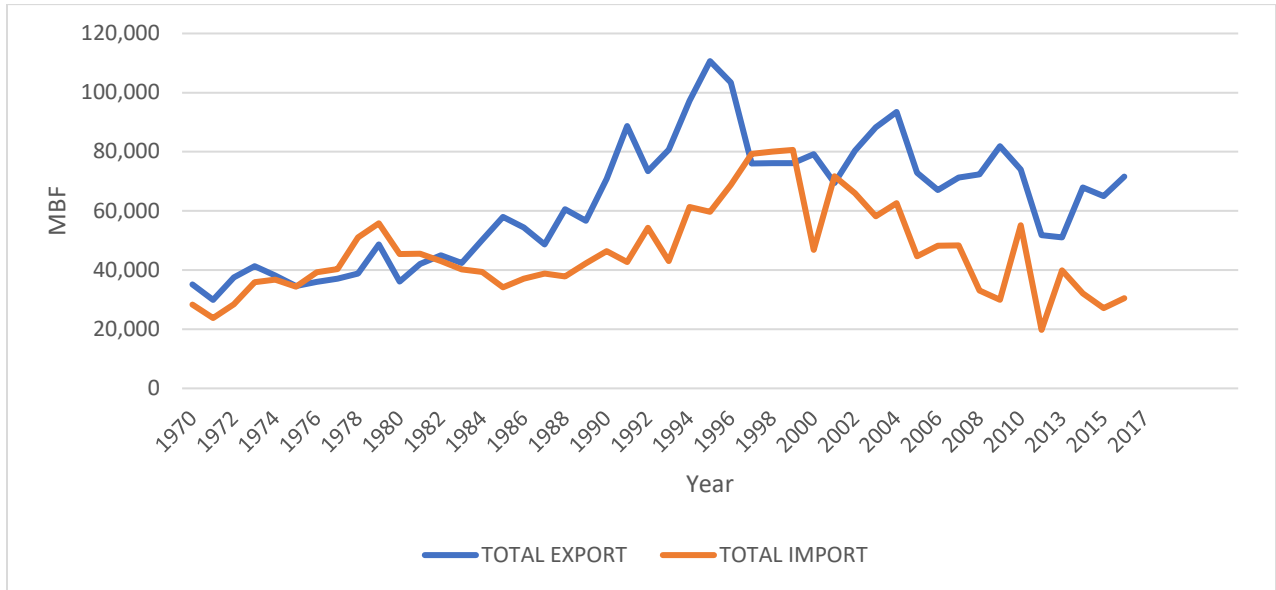


³ Compiled from the most recent data available from each region.

⁴ Sawmills using over 1 million board feet annually. Note that *individual* mill sites in Quebec process up to 150% of the cumulative production of *all* of Vermont’s sawmills.

The graphics above demonstrate that Vermonters have fewer markets for forest-derived commodities and must transport them farther, reducing returns to the supply chain, and ultimately, landowners (not to mention increasing costs and carbon emissions). Over 100 sawmills have ceased operation in Vermont in the past fifty years. Notably, Rutland Plywood, the only major purchaser of white birch logs in the region, burned in 2014 and chose not to rebuild. Stumpage values to landowners for white birch logs in southern Vermont subsequently dropped by 40% for three years and have still not fully recovered.

Table 3. Vermont sawlog volumes in MBF exported⁵ vs. imported 1970 – 2016



Vermont’s forest economy is a net exporter of sawlogs. The state’s sawmills are importing fewer sawlogs as markets are lost or demand for products that were once produced locally is outsourced. Emerging trends in Asian demand for hardwood species in American forests, Asian tariffs on lumber sawed in American sawmills, along with Asian investment and construction of high capacity sawmills indicate that this is likely to continue and the margin between exports and imports is likely to grow. Exporting commodities also exports employment and requires extensive transportation networks, with significant carbon emissions implications.

⁵ Exported to any region outside Vermont, which includes other northeast states, Quebec and China