STIX, L3C founder (25 years ago, today)

(STIX) Sustainable Timber Investment eXchange was founded fifteen years ago to take underutilized Vermont species like eastern hemlock into more engineered applications.

It was a consult and wood science “sister company” to my timberframe and sawmill business. I had started with a small sawmill, residential work, and grew to as many as 15 employees with a mix of native lumber prefab and high end general contracting.

My company consults internationally, and east to west. In this presentation I hope to support a transition in Vermont sawmill regulations to align with new regional realities.

My own 30 years with Vermont value-add timber

1994: Founded Ironwood Brand in my hometown after study in Architecture & Forestry
2000s: Paid off 1st portable sawmill and harvesting equipment, willed an older mill.
By 2005: Got a local permit for sawmill as part of a diversified farm, retrofitted a shed.
Thanks: Stu Thurber, Tim Hamilton, & Ag Advisory Committee's local ordinance
Primary business was a cottage industry conditional use within Rural district.
10 years quiet operation, no noise complaints, part time/seasonal presence.
Thanks to VT's right to build with native lumber, rebuilt my barn and ~80 homes.
By 2007: founded STIX, Sustainable Timber Investment eXchange, built a timber testing rig **Thanks to Wood Utilization Forester Bob DeGeus, and Leahy's office.**
By 2008: Helped found BTU, Brattleboro Thermal Utility, for wood chip CHP district.
Thanks to Paul Frederic, BERC, and local mill allies at Cersosimo and Allard's.
2015: Won a Working Lands Enterprise Board grant to add septic and well to the barn.
Thanks to WLEB for their support and to other winners for community aspect.
2016-17: Moved into a larger industrial building in town. My prefab construction business failed within 18 months. I had to sell all my equipment including the sawmill.
Personal guarantees to settle all debts are still in progress, 7 years later.
Thanks to VEDA, Brattleboro Small Business Assistance Program, and local lenders including past clients and Brattleboro Savings & Loan. I gave back my second Working Lands grant to producers who could use it more than me.
Now that I have to travel regionally/internationally for consulting work in wood utilization, I am thankful for the opportunity to share support for this bill.

Vote yes to exempt small processors

agricultural soils. It proposes to exempt small forest product processors from needing an Act 250 permit. It proposes to make changes to the definition of accessory on-farm business and exempt those businesses from needing an Act 250 permit. It would require electric generation facilities with a capacity greater than 500kW to get an Act 250 permit.

(3) Private and public forestlands and forestry operations are adversely affected by the encroachment of urban, commercial, and residential land uses

The newest requirement of "Deforestation Free" wood (and beef, palm oil, etc) has not only come into effect within the EUDR, but New York has a copycat bill.

A look at the deforestation risk of this region shows suburban sprawl, not working lands economies, as the primary risk. Act 250 should acknowledge this

Community scaled mills are being defined nationwide as a supported part of the rural landscape and economy. Vermont is already being left behind and needs to reconcile this quickly before losing any more of our legacy and capacity.

Example of federal and state support elsewhere

§8113. Community Wood Energy and Wood Innovation Program

(a) Definitions

In this section:

(1) Community wood energy system

(A) In general

The term "community wood energy system" means an energy system that-

(i) produces thermal energy or combined thermal energy and electricity where thermal is the primary energy output;

(ii) services public facilities owned or operated by State or local governments (including schools, town halls, libraries, and other public buildings) or private or nonprofit facilities (including commercial and business facilities, such as hospitals, office buildings, apartment buildings, and manufacturing and industrial buildings); and

(iii) uses woody biomass, including residuals-

(I) that have not been adulterated with glue or other chemical treatments from wood processing facilities, as the primary fuel; and

(II) for which the use of that biomass for energy production does not cause conversion of forests to nonforest use.

(B) Inclusions

The term "community wood energy system" includes single-facility central heating, district heating systems serving multiple buildings, combined heat and electric systems where thermal energy is the primary energy output, and other related biomass energy systems.

(2) Innovative wood product facility

The term "innovative wood product facility" means a manufacturing or processing plant or mill that produces-

(A) building components or systems that use large panelized wood construction, including mass timber;

(B) wood products derived from nanotechnology or other new technology processes, as determined by the Secretary; or

(C) other innovative wood products that use low-value, low-quality wood, as determined by the Secretary.

(3) Mass timber

The recent shift in Community Facility support has been led by bipartisan neighbors including Shaheen and Collins. This is one of the first national acknowledgements that it's not just wildfire risk but forest health that is at stake.

If a small processor in Vermont won this grant, could they get a local permit?

Support for sawmill language, plus an “and/or”.

(y) No permit or permit amendment shall be required for either:

(1) a sawmill that produces three and one-half million board feet or less annually; or

(2) an operation that involves the primary processing of forest products of commercial value and that annually produces:

(A) 3,500 cords or less of firewood or cordwood; or

(B) 10,000 tons or less of bole wood, whole tree chips, or wood

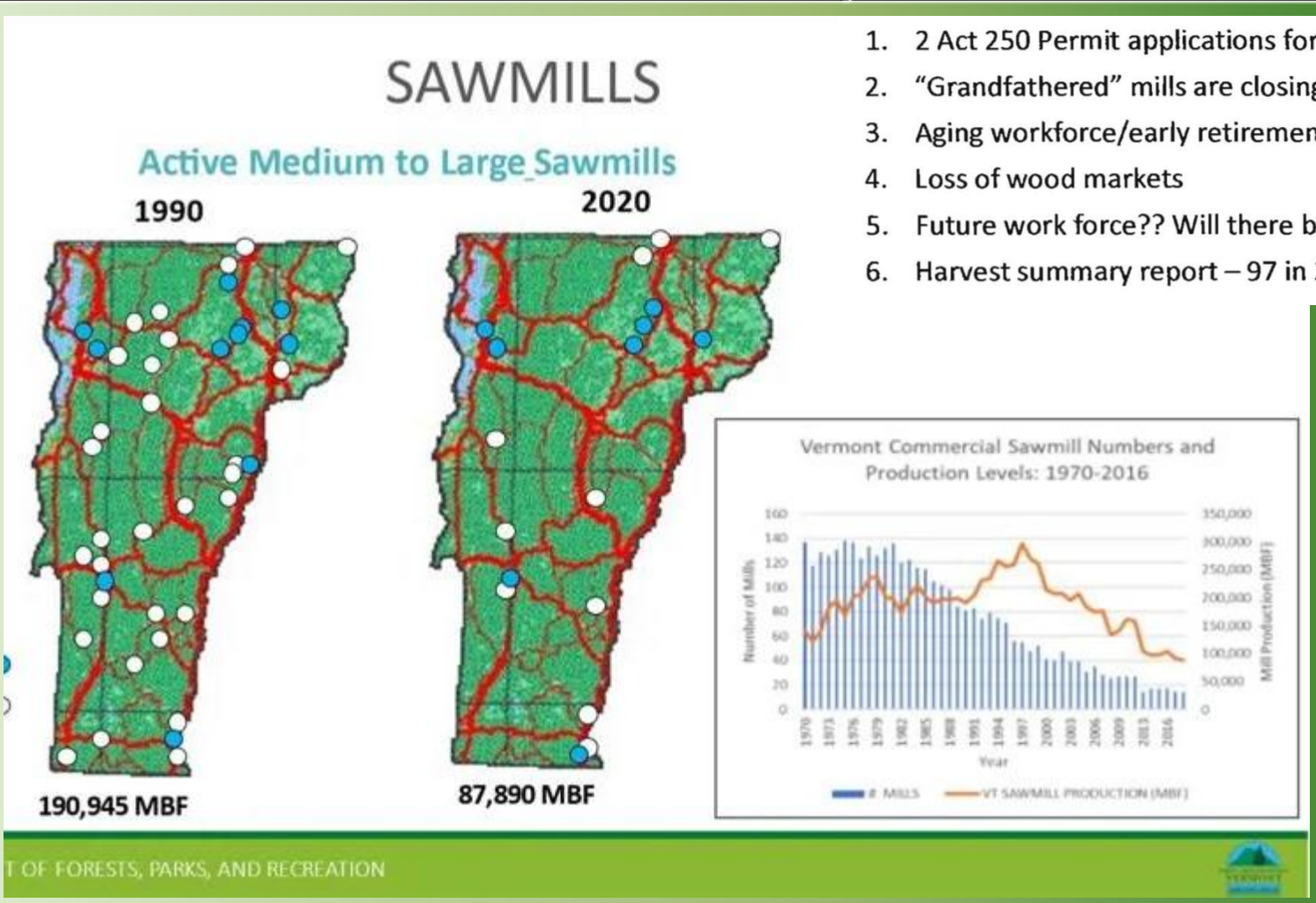
I support this language but please consider an “and/or”, plus a higher sawmill production.

Example of a chip operation assuming:
25 tons/truck
2 outgoing trucks/weekday.

Allowing the possibility of co-located community-scaled mill

1. Two outgoing tractor trailers/day would have 30k board feet and 6 million feet.
2. Residuals from this mill operation would generate less than 3 trucks a day.
3. An onsite and permitted CHP or thermally-led heating unit to run the kilns could consume enough to dry all wood and reduce outgoing trucking to 2 trucks/day.
4. Reducing logs to slabs is the best way to achieve multiple benefits. Lowering size of equipment for chipping, meeting noise level dBA at property line, and creating opportunities for other co-products from screened chips for heating, compost inputs, animal bedding, and even wood fiber insulation.

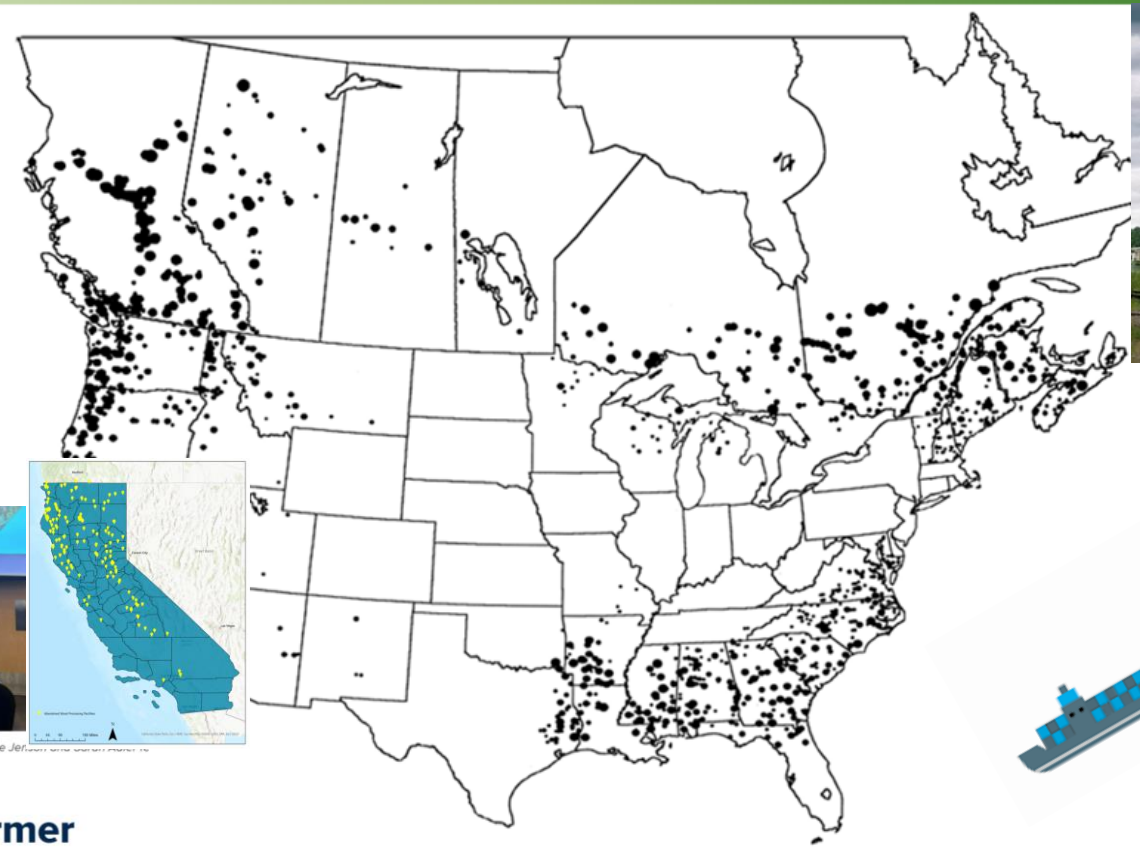
Local context has been pointed out well



1. 2 Act 250 Permit applications for sawmills since 1974
2. "Grandfathered" mills are closing
3. Aging workforce/early retirement
4. Loss of wood markets
5. Future work force?? Will there be an industry for them?
6. Harvest summary report – 97 in 2011; 44 in 2017

Images courtesy of Paul Frederick, Wood Utilization Forester.
Text reference from Colleen Goodrich during her Act 250 application process
Much of this sawmill capacity is still sawing Vermont logs, they're just out of state.

We should consider our broader context briefly.



From left to right: Maria Rechdouni, Thomas Miller, Christina Harrington, Cole Jer... the EPM Policy Symposium.

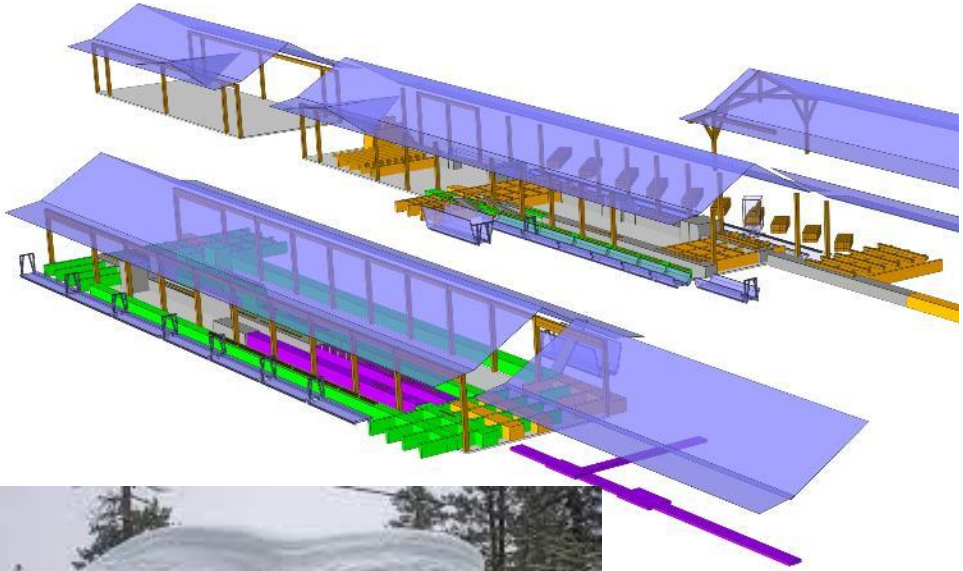
Students research former sawmill redevelopment to support forest management

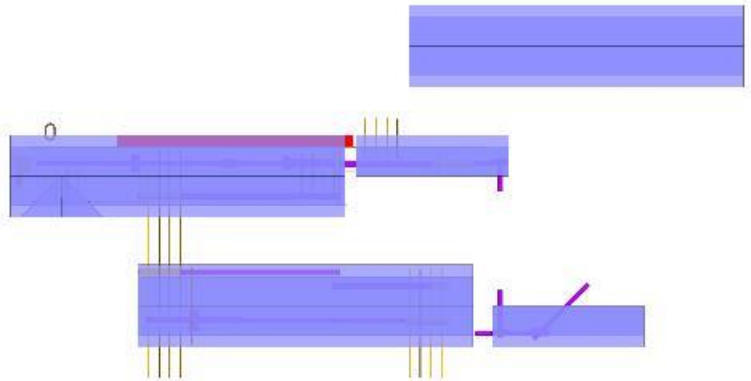
A map of major sawmills in North America and threats to regional lumber utilization. Other regions are looking to Vermont for leadership in community scale examples.

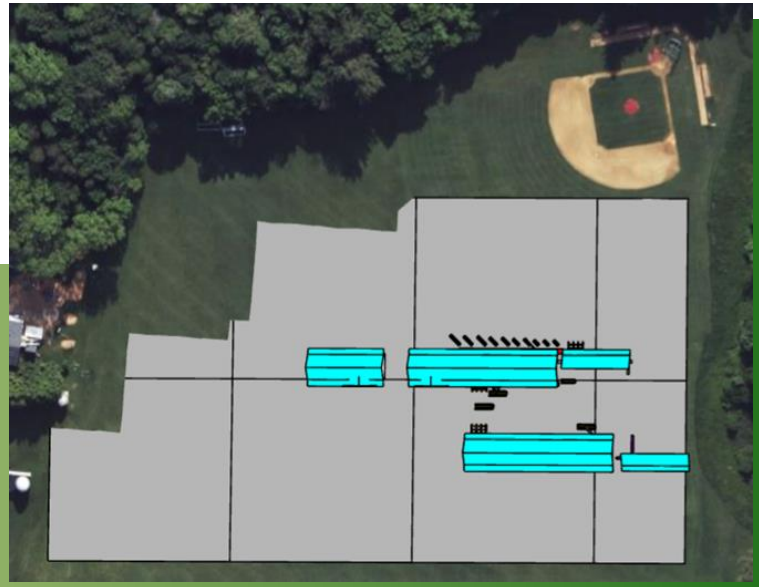
What have I learned in 15 years of binational consulting with the French Canadian community?

A small log is an opportunity and sometimes has the toughest fiber.
The USA wants me teach them about “Tall Wood” but no one wants to tackle the tough reality of sawmill capacity in North America, or the “Home Depot” problem

ϕ A modular catalog of buildings and equipment .







Sturdy and smaller buildings, for snow and fire protection within the WUI codes. If the western states can work on pre-engineering and permitting, we should too!

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Thanks for your support for the wood utilization sector