

Value Chain Workshop Brief: Construction Materials

Introduction

The Working Lands Enterprise Board (WLEB) is conducting a systems analysis of Vermont's Forestry Industry to identify opportunities for strategic investments to support and grow this important sector of Vermont's economy. The goals of this work are to identify the most promising opportunities and build relationships within the sector (and beyond) that contribute to prosperity for all participants. The Working Lands Enterprise Board will be using the results of this work to prioritize policy and investments in the wood products industry. Identified strategies will be presented in June at a Statewide Summit of the industry.

The material in this document comes from three separate activities conducted by Yellow Wood Associates as part of the systems analysis work underway (secondary data analysis, key informant interviews, and focus groups). The reports resulting from these activities were all prepared as internal documents for WLEB and are in draft form. Some of them include comments from members of the WLEB committee. This brief includes excerpts of material that seem most relevant to the construction subsector. This information is provided to you as a participant in the upcoming value chain workshop and is not intended for broad dissemination.

We are sharing this material with you not because it is definitive, but because reading it may stimulate your own thinking with respect to emerging market-driven opportunities in the construction materials arena that could be captured by many Vermont firms working together. We will not be spending our time in the workshop debating this information; rather we will be counting on you to provide your own ideas and perspective.

The three sections in this brief are:

1. Part One: Lumber, Engineered Wood Products, and Millwork & Solid Wood Parts, from *Draft Report on Secondary Research*, an internal report on market trends;
2. Part Two: Opportunity: Improving the Marketing of Construction and Construction Materials, based on secondary research and key informant interviews with industry players inside and outside Vermont;
3. Part Three: Positive Developments and Challenges in Vermont, based on four focus groups held in different parts of Vermont in November and December, 2014.

Part One: Lumber, Engineered Wood Products, and Millwork & Solid Wood Partsⁱ

Lumber

Demand for Lumber

Hardwood lumber has a diverse set of applications including appearance applications (furniture, cabinets, flooring and millwork), industrial (pallets, cross ties, scaffolding, mats) and building framing (or construction) applications. The demand for hardwood lumber is currently dominated by industrial uses (a shift from the 1970s when demand was primarily non-industrial) – with 61% of the hardwood market consisting of industrial uses.^{1,2} In 2010, the market share of hardwood lumber products in the United States was led by pallets (47%) and followed by exports (15%), railway ties (12%), flooring (9%), millwork (6%), cabinets (6%), and furniture (5% – an 87% decrease in market share from 1999)³

The majority of demand for softwood lumber is in residential construction (70%), a small portion going to commercial construction (5%), and the remaining demand to industrial uses (25%).

Lumber Data and Trends

National and International Trends

Global lumber markets are driven by lumber demand trends in the United States, China and Western Europe. North American lumber production is expected to increase by 5.4% in 2014 with the stud lumber market expecting to see the most volatility as U.S. housing starts increase and supply tightens.⁴ While it is considered unlikely that consumption of hardwood lumber will reach 2000 levels in the near future, the outlook for U.S. hardwood lumber production is good because, “the United States has a large and sustainable hardwood resource base and the infrastructure to access this base allowing it to remain the world’s largest exporter of hardwood lumber.”⁵

Green Building / Certified Lumber

LEED (Leadership in Energy & Environmental Design) certification is a third party verification system that certifies that a building has been built to a standard to limit energy use and environmental impacts. Demand for LEED certified buildings is growing rapidly at colleges and universities and LEED certification is starting to be required by some state and local governments. In order to gain certification, a project must gain a minimum number of credits or points. The credit that can impact demand for lumber is *Materials and Resources: Building Product Disclosure and Optimization*. This credit awards 1 point for the use of wood products certified by the Forest Stewardship Council; FSC certified products must make up at least 25% of the value of all installed building products. FSC certified wood products that are sourced from within 100 miles of the project site are valued at 200% of their base contributing cost.⁶

ⁱ Information in this section excerpted from *Draft Report on Secondary Research* an internal report on market trends.

The number of federal buildings receiving LEED certification has been increasing steadily over the past few years with a 51% year-over-year increase over the past several years, based on preference by the General Services Administration (GSA) for building to LEED standards.⁷ The growth in LEED certified buildings on college campuses has been even more significant with 2,078 LEED-certified projects in the higher education space half-way through last year and more than 3,000 additional projects seeking certification.

As demand for LEED buildings increases, the demand for certified lumber is increasing; a recent study predicts an 11% increase in demand for U.S. green building materials with the majority of that demand in permeable pavement and structural components (including certified lumber) through 2017.⁸

Demand for certified lumber exists outside of the green building market as well. In a recent survey of hardwood lumber manufacturers, 30% reported being asked for “certified lumber” by their customers and 77% believed that demand for lumber certified for green building will increase.⁹

Mobile Applications for Bidding

Technology is changing the way construction projects are specified, designed, bid, and built with an eye toward increasing efficiency and performance at every stage. For example, Main Street Lumber, based in Denison, Texas, has developed a mobile app called *Mobile Visual Pro (MVP)*, for its sales personnel. The application allows for project bids to be made on the job site with customized specifications and then to be sent to both the customer and company office for distribution; the application is synced with the servers at the main office to show current inventory and pricing.¹⁰

Opportunities and Challenges

Many sawmills went out of business when the demand for lumber was down during the recession and housing collapse. As demand for lumber increases again, the decreased capacity to produce lumber will lead to shortages and increased prices for lumber.¹¹

A survey of hardwood lumber manufacturers focused on green initiatives found that few respondents (11%) were aware of green building points associated with the LEED system and most (62%) did not believe the green building standards will help their industry.¹² There is a need to understand the role of lumber producers and distributors in meeting the demand for green building and certified products from the hardwood industry.¹³ As we have a better understanding of the barriers to the production of certified lumber products it is likely that Vermont producers will be able to access market opportunities for these products.

Engineered Wood Products

The term “engineered wood products” refers to products made from a mixture of wood and adhesives that can be used in a wide variety of applications. Plywood, oriented strand board (OSB), and cross-laminated timber are all examples of engineered wood products. For the purposes of this report, wood-plastic composites are considered “innovative products” and are not included in the discussion of engineered wood products.

Demand for Engineered Wood Products

The APA-Engineered Wood Association predicts increases in demand for softwood plywood, glulam, oriented strand board (OSB), I-joists, laminated veneer lumber, and total structural panels of 30–45 percent through 2018. This demand is driven by a forecast of increased housing starts as well as recovery in the nonresidential construction market.¹⁴

New wood-based products, such as cross-laminated timbers, that are competitive with concrete and steel and have a favorable environmental impact, are likely to help open up new markets.¹⁵

Engineered Wood Products Data and Trends

National and International Data and Trends

The USDA Forest Service conducted a study of wood and other materials used to construct low-rise (less than six story) nonresidential buildings in the U.S. in 2011. They determined that healthcare, schools and stores ranked first, second, and third in total wood consumption and together accounted for nearly half of all wood consumed in low-rise construction. Wood is currently reaching about 30% of its potential where allowed by code, thus significant potential exists for increased use of wood in new construction and additions (renovations are too variable to measure). The greatest potential is for an increase in wood in stores and schools and colleges, followed by public buildings, office buildings, and healthcare. About 18% of the overall increase, or about 800 million square feet of materials, were estimated for New England.ⁱⁱ

The newest product development in engineered wood products that has gained considerable traction in Europe and is beginning to be used in the United States is cross-laminated timber (CLT). CLT is used in high-rise as well as low-rise construction in Europe.ⁱⁱⁱ CLT is made from three or more layers of solid-sawn lumber or structural composite lumber orthogonally bonded together with structural adhesives. It is used in wall, floor, and roof applications in residential and nonresidential construction where it can be used as an alternative to steel and concrete.

CLT can be prefabricated which allows for greater ease and speed of installation, requires less highly skilled labor, and can be installed in freezing cold climates. CLT can meet high standards for thermal and sound insulation and performance under fire conditions. A U.S. Edition of the CLT Handbook, developed by more than 40 experts around the globe, and based on the Canadian Edition, produced in 2011, is now available. A recent code change approved by the International Code Council in late 2012 will open up nonresidential markets.¹⁶ The market for CLT is just getting started in the U.S.¹⁷ Though CLT is typically made from softwood, there is pioneering work going on in the use of hardwoods in CLT.¹⁸

ⁱⁱ This estimate does not include wood used in interior finishing, outdoor structures, and temporary uses (e.g. scaffolding).

ⁱⁱⁱ Stadthaus is a nine-story residential building in Hackney, London. It is thought to be the second tallest timber residential structure in the world, after the Forte apartment complex in Melbourne Australia. It was designed in collaboration between architects Waugh Thistleton, structural engineers Techniker, and timber panel manufacturer KLH.

Opportunities and Challenges

Just as the use of materials in construction is changing, so is the process of design and construction. These changes present both opportunities and challenges. Suppliers of products like CLT and other innovative materials have the opportunity to enter into new relationships not only with their customers, but with carpenters, artisans, forest workers, architects, machinery providers, engineers, researchers and environmentalists to design and execute buildings that successfully meet multiple objectives, i.e. durability, safety, energy efficiency and positive environmental impacts. In other words, producers of materials have the opportunity to become partners in innovation rather than simply suppliers of commodity products.¹⁹

Opportunities

Demand for engineered wood products may increase due to the advantages of newly developed products such as CLT. Distinct advantages of CLT over steel and concrete include: space savings (1/3 thinner than concrete), lower material weight, dimensional stability with minimal shrinkage, panel span in two directions, seismic performance, versatility and integration with other materials, low job site wastes, and “green” characteristics.²⁰ USDA has concluded that substituting wood products for fossil fuel intensive alternatives results in increased carbon storage and significant amounts of “avoided” greenhouse gas emissions.²¹ Engineered hardwood products maximize the yield from hardwood logs, reducing the demand to consume more trees.²²

Opportunities also exist in the development of new products. The University of Maine has research facilities for engineered wood products that can be used by companies to experiment with new product development.

Challenges

A limited number of Vermont firms appear to be currently working in this area. Firms would need to invest time and capital into learning how to produce, use, and market the new materials in order to take advantage of potential increases in demand.

Millwork and Solid Wood Parts

Demand for Millwork and Solid Wood Parts

U.S. demand for molding and trim is forecast to rise nearly 11 percent per year to \$9 billion in 2016²³, driven by a sharp rebound in housing and building construction. Stairwork will be the fastest growing product, while engineered wood will be the fastest growing material. The dominant residential market will vastly outpace growth in the nonresidential sector. This growth in demand for molding and trim is relevant; there are 17 member companies of the Vermont Wood Manufacturers Association that may be able to meet some of this demand in Vermont and potentially New England.

The kitchen cabinetry market regained profitability in 2013 as housing and remodeling recovered. The Hardwood Manufacturers Association (HMA) notes an increase in demand for rift sawn white oak kitchen cabinets, and white oak cabinets with rustic treatments. Add-ons (carved feet,

undercounter corbels and crown mouldings, turned legs, raised panels and cutouts) are still in demand but on a smaller scale.

Millwork and Solid Wood Parts Data and Trends

National and International Trends

A substantial share of the total finished interior wood materials used in nonresidential buildings belong to the millwork category – doors, windows and interior moldings. Approximately 206 million board feet of lumber and non-structural panels were used in low-rise buildings in 2011.²⁴

The overall market for cabinetry is \$9 billion, but it is highly fragmented, with 9,000 total manufacturers selling to builders and through designers, dealers and big box stores. Seven U.S. cabinet firms hold around one third of the market. Around 6000 cabinet firms supply 60% of the market.

The wood and laminate flooring market is dominated by just a few companies: Armstrong with \$450 million in revenue; Mohawk with \$1.3 billion in wood and laminate (including some melamine faceboards, and specialty MDF for furniture); and Lumber Liquidators, which sources most flooring abroad, predicts U.S. sales of \$995 million in 2013. Specialty floor producer Connor Sport Flooring dominates a unique niche: basketball courts for the NBA (it's done 14) and NCAA Final Four (it's the official floor company). A number of firms also make other forms of panel products, and this segment supplies retailers. Panel Processing, Windmill, Shaw and Berkshire Hathaway are just a few.

In the U.S., 51.6% of cabinet shops are equipped with CNC machines which use computers to control machine tools. Currently 2,500 architectural woodwork and millwork firms serve architects, builders, designers, and contractors, doing some residential, but principally handling commercial interiors. Architectural woodworkers are busier than ever, but the average billing is lower than in past years.²⁵

Opportunities and Challenges

Opportunities

Vermont is positioned to take advantage of new demand for wood products related to local production of craft spirits. A recent article in the *Seven Days* highlighted the national shortage of oak barrels for aging spirits, and indicated that local distillers are interested in establishing a cooperative to produce oak barrels from local oak in Vermont.²⁶

The millwork industry is a direct order taker from the architecture and interior design sector. Trends in this sector and pressures that architects are facing:²⁷

- Sustainability / LEED certification in commercial offices and accompanying demand for furniture and wood parts that meet certification standards.
- Building Information Modeling (BIM) is leading to the integration of large office fixtures and furniture into the design process. While it is not yet clear how millwork companies can integrate themselves into BIM it is worth keeping an eye out for opportunities as this

- appears to be the technical direction design and construction is going and impacts how firms work together.
- Repurposing/Rehabilitating Existing Buildings – considerations of cost and sustainability have increased the interest in repurposing and rehabilitating existing buildings. In many cases all millwork is replaced. In others some millwork is rehabilitated and reused, especially in LEED renovations.

There is a trend emerging for millwork to diversify into some standard product lines: furniture, fixtures, doors or other non-custom millwork items. This diversification can allow companies to respond to a variety of different demands. Diversification into standard products serving the non-residential sector is one path as this sector is familiar to woodworkers. Standard products can include some office furniture, fixtures and millwork such as doors that are repeated elements.²⁸

Diversification into standard products for the residential sector is another option for moving forward. Residential demand is usually the first to decrease in an economic contraction, and is the first to recover as an economy expands. Diversification into this market requires design, marketing and distribution expertise that is different from custom millwork. This can be addressed by adding expertise in-house or through strategic partnerships with companies already serving the residential sector.

There is a shift to water-borne finishes, which has been expected, with the increasing focus on volatile organic compounds (VOCs) in LEED, CARB and other standards. Applying water-borne finishes requires additional training as it differs from traditional solvent-based coating application. Another way to minimize VOC emissions is through powder-coating. This technique is efficient in terms of paint usage as overspray is virtually eliminated. Solvents are not used and faster curing times are achieved.²⁹

Moldings are using more finger-jointing techniques to create long runs from shorter pieces of wood, produced from cutting younger forests. When there is less long wood available, the best approach is to finger-joint the pieces. These moldings are typically primed because pre-finishing cuts time on the job site.

There is also a trend in environmentally friendly design. Wood products promote their renewable attributes and the use of second-generation timber to produce products.³⁰

Trend lines for wood molding and trim show less production due to falling demand. Prospects for this type of work are in non-residential home projects, early stages of projects, and being green. Ways to gain some of the import market are to use lower cost minor hardwoods and softwoods, offer faster delivery, custom and modified designs, and features USA themes, sustainability and green issues.³¹

Trends in hardwood flooring for 2013 and 2014 include³²:

- Exotic hardwoods (or domestic hardwood products that have been manufactured to mimic the look of an exotic). Many exotics do not come from ethical renewable sources... consumers who care will be looking for products bearing the logo of the FSC or SFI.
- Vintage style: reclaimed hardwood, distressed wood flooring (a less expensive alternative to reclaimed wood), hand scraped wood flooring (intermediate between reclaimed hardwood and distressed wood), wide width planks (wider than 5”, generally 7” and up with lengths up to 6’)
- Site finished floors
- Lower grade wood is increasingly popular because it gives a more natural or vintage appearance.
- Engineered and prefinished flooring
- Bamboo and cork flooring – perception that cork and bamboo are the greenest options in flooring.

Cabinetry design trends include^{33,34}:

- Motorized upper cabinets and kitchen islands that rise and lower for access.³⁵
- Trends in color are for gray color schemes and frameless, transitional-style cabinetry along with hardware-free, touch-activated doors and drawers.³⁶
- Design trends also favor white painted cabinets though natural finishes are still popular.³⁷
- Among painted finishes, white is the most popular (59% of paint finish specification are for white paint)³⁸
- Among natural finishes, dark finishes are preferred (58% of specifications for natural finish were for dark finish in 2012, an increase from 43% in 2010); light finishes were specified 30% of the time and medium natural finishes 55% of the time³⁹
- “Solid” countertops (stone, synthetics, wood) are gaining ground on laminates.⁴⁰
- Demand for distressed finishes varies from year to year (22% in 2012, 5% in 2011, 15% in 2010)⁴¹

Wood/plastic composites (WPC) in windows and doors can be worked like wood, but are durable and weather resistant. Their rising popularity has led to the development of specific industry standards.

Growth in the windows and doors segment is being attributed not only to the rebound in housing, but the demand for vinyl and fiberglass products as consumers seek more energy-efficient and maintenance-free options. However, forecasts also project a 10.2% per year gain for wood products, driven, in part, by mid- to high-end builders whose clients view wood doors and windows as value-added products. 2013 product launches meet consumer demand for energy-efficiency with the preference for wood, by offering affordable wood clad windows with ENERGY STAR ratings along with design and color options for finish and trim.

Challenges

A study by Freedonia Group notes that engineered wood molding and millwork is projected to grow at a faster pace than products made from wood or plastic due to their pricing and ease of use.⁴²

Even in a down residential housing market, molding and trim manufacturers are finding encouraging signs. As builders and homeowners try to make their houses stand out, they are adding details inside and out. However, more products are being made from materials other than wood. The trend from the long-popular wood options to synthetic products continues to grow each year.

In wood flooring, inconsistent demand and competition from non-wood flooring both present challenges. Reclaimed wood, wide plank and rustic flooring styles are big, though installers say they are not always consistent. Also trending is laminate flooring, particularly with embossed and textured wood grains that simulate real wood species. Luxury vinyl and carpeting are gaining at the expense of wood.⁴³ Other competing flooring types include bamboo and cork flooring, which are perceived by some consumers as greener than solid wood flooring.

Part Two: Opportunity: Improving the Marketing of Construction and Construction Materials^{iv}

Commercial Construction

According to a study conducted by the U.S. Forest Service (USFS),⁴⁴ wood is currently reaching about 30% of its potential in new construction where allowed by code. The greatest potential for increase is in construction of stores, schools and colleges followed by public buildings, office buildings and health care institutions. The USFS is actively supporting research and outreach to expand the use of wood in low-rise commercial buildings with a focus on cross-laminated timber (CLT). USFS is supporting WoodWorks, a project of the Woods Product Council, that provides free one-on-one project support to architects and others that want to use CLT.⁴⁵ A U.S. edition of the CLT Handbook is now available, and the market for CLT construction is just opening up in the United States. CLT is generally manufactured from softwoods; there is some experimentation ongoing in the use of hardwoods. Although Vermont's forests produce mostly hardwoods, taken as a whole, the Northern Forest Region produces substantial amounts of softwood. If there is increased attention given to building with wood as a sustainable, renewable resource with a positive energy and carbon footprint, opportunities for using Vermont's hardwoods as interior finishes, flooring, stairways, etc. can also be enhanced and promoted. In fact, alliances between CLT producers and producers of hardwood products used in construction could be explored for mutual benefit. Since Vermont's softwood mills are very small and generally supplying local markets, a

^{iv} From *Draft Market Sector Analysis Summary and Recommendations*, based on secondary research and key informant interviews with industry players inside and outside Vermont. All quotes in this section are from key informant interviews conducted in the Fall of 2014 with approximately 30 businesses working in the forestry and wood products sector in Vermont.

cooperative, regional approach to drying, grading and marketing “local” structural lumber might be another possibility, but at a much smaller scale.

There may be an opportunity for a New England-wide “build local” alliance for construction-related products that would serve the entire region. It could offer retail and wholesale options in major markets (Boston, Burlington, Portland, Manchester, etc.) and handle products from throughout the region to get diversity, volume and product mix. It could be staffed by a manufacturer’s representative that would build relationships with suppliers and a circuit rider that would identify wood-users and wholesale buyers in the urban/metro areas and build those relationships. This combination could result in ongoing market-based intelligence for participating suppliers that would spur innovation and new collaborations. This type of activity may already be underway and it may be possible to establish a partnership with one or more existing businesses in metro areas in the region.

Residential Construction

According to an interviewee, there appears to be unmet demand for high performance houses, including, but not necessarily limited to, modular homes. A high performance home is different than an energy efficient home. It is so efficient that it does not require a standard heating system, just a heat pump and solar panels on the roof. High performance houses cost a bit more to build but have a fairly short payback period. At this time, appraisers do not employ practices that recognize the added value of high performance homes. This means that banks will not lend to cover the additional cost of construction. For many potential buyers, the cost differential is enough that they cannot afford it without financing. This has limited the amount of actual construction of these homes by Vermont builders. The extent of pent-up demand is not clear, but removing the appraisal obstacle would be a first step in figuring it out. At least one Vermont builder, Vermod, is currently producing high performance modular homes and another, Huntington Homes, is prepared to produce them once the financing hurdle is better resolved. A similar appraisal bottleneck with regard to affordable energy efficient homes is being addressed in Kentucky and Tennessee through the work of the Federation of Appalachian Housing Enterprises (Fahe). This is a systems change that can be instrumental in unlocking demand. It could also help more Vermont companies in the residential construction field develop expertise in high performance homes to meet what may well be growing market demand.

Millwork

The millwork industry responds directly to demand from the architecture and interior design sector. There is a trend for environmentally friendly design, by promoting the renewable attributes of wood, using second generation timber to produce products, and shifting to water-borne finishes. According to our secondary research, architects are also facing pressures related to sustainability/LEED certification in commercial offices and the accompanying demand for furniture and wood parts that meet certification standards.

There does not seem to be a commercial cabinet-maker in Vermont selling at commercial volumes, although there are small (1–3 person) cabinet shops. There is one sizeable kitchen company. Producers of kitchen cabinetry may be closer to furniture than millwork, in that design plays a

greater role. We have only identified a few relatively small wood flooring manufacturers. Millworkers are challenged to find the supplies they need in state; however, they can get their needs met through brokers that travel to Vermont on a regular basis.

“There isn’t really anyone in state offering the service of the New England-wide suppliers. They’re buying Vermont wood too at a different scale. It is amazing what is available and on short notice. There are 5–6 milling and wholesaling outfits that have thousands and thousands of board feet in their yards.”

Vermont millworkers are experiencing problems with consistent quality when they do make in-state purchases. Yet, there is increasing demand for millwork in commercial and institutional markets. Higher end millwork produced by Vermont firms is currently purchased by mostly out-of-state buyers. Millwork can and should be part of the concept of a forestry and wood products construction value chain. The demand side (including realtors, architects, and other allied professionals) should be engaged as well. It may make sense to make a concerted effort to reach the design and thought leaders in this sector to promote use of wood and creating more opportunities for it.^v

Vermont Branding

There is a difference between a Vermont “brand” and the use of Vermont forestry and wood products in Vermont manufacturing. There are some firms, like Vermont Wood Studios (furniture), Vermont Good Wood (firewood), and D’Aiello Vermont Tree Farm (Christmas trees) that target retail customers who have a positive association with Vermont. The Vermont name is not the primary factor, though. It’s product quality, performance, style. In the maple syrup market, the Vermont brand no longer commands a premium price at wholesale, but it is more likely to go to market first.

At the wholesale level, to non-Vermont buyers, Made in the USA is more important than “Made in Vermont.” There are some exceptions. Some local buyers and some non-local buyers favor Vermont wood. Some buyers are attracted to the color and/or density of Vermont wood. Some foreign buyers are aware of the superior quality of Vermont maple and red oak as raw materials and in products and will specify it in their orders. The Vermont “name” is associated with good forestry practices and/or a high standard of craftsmanship.

“Vermont brand is only occasionally a little bit important – because if it is sawn here in Vermont you know it is sustainable; that is true in the whole northeast.”

Just 9% of survey respondents, all of which produce secondary wood products, participate in the “Vermont Quality Wood Products” brand. Several respondents reported using other Vermont brands such as “Guild of Vermont Furniture Makers” and “Vermont Woodlands Association.” Less

^v The Cornerstone Resource Manual, published by the Vermont Wood Manufacturers Association was created to connect architects and designers with Vermont producers and craftspeople. We do not know if its effectiveness has ever been evaluated.

than a third of survey respondents were interested in participating in a state or regional branding initiative.

Certification

Fewer than a quarter (23%) of all survey respondents reported that their customers require forestry or chain- of-custody certification.

In the lumber industry, several interviewees reported that wood sells faster if it is not FSC. There are still a few customers that want FSC lumber and are willing to pay a premium for it (up to 10%), but they are in the minority. By and large, the additional costs of full FSC certification cannot be passed on to the buyers because the market will not support it.

“Some buyers will demand certification but they aren’t willing to pay more for it.”

Part Three: Positive Developments and Challenges in Vermont^{vi}

Selected Positive Developments

Demand for VT/Sustainable Wood

Demand for Vermont wood and sustainable wood was mentioned as a positive development in the Northwest and Southern regions. In the retail lumber side of things, for example, more and more people are thinking about buying local for raised beds, instead of pressure treated wood. In addition, institutions are starting to demand locally sourced wood in construction and renovation projects.

The fact that it is now possible to receive credits for using wood in your LEED certified building through a sustainable materials credit is considered a positive development. Extra points can be earned for wood procured within a certain distance. There has been demand as a result of that change to the LEED guidelines.

Wood Product Markets

There has been more competition for loggers. Loggers and foresters reported having more low-grade wood products markets available to them, which is improving prices for loggers. This may be as a result of more and better markets for low-grade wood products. Markets are strong and there are plenty of places to sell wood. More markets are using forestry and wood products. There has been more demand for secondary products made from local wood. This was mentioned specifically in the Central region. More and more people are seeking character wood, or wood with imperfections; the story helps to promote this kind of wood. Another example given was firewood, which is being sold for \$100 per cord on the landing, as opposed to four years ago, when a cord was being sold for \$5–6. The competition between firewood and wood chips was felt to be beneficial.

^{vi} Excerpts from *Draft Focus Group Summary*, based on four focus groups held throughout Vermont to bring together a variety of perspectives throughout the forestry and wood products industry. The information in this section is based on the opinions and perceptions of the approximately 50 focus group participants.

The energy market, which uses low-grade wood, was also believed to be helping to support higher prices.

Made in the USA is a stronger brand, but Made in Vermont does have added cachet in certain markets.

Selected Challenges

Cost/Price Squeeze

Global pressure on price was a challenge that was mentioned, specifically by those in secondary production, which is “mostly out of our hands,” but is an issue because of the high costs of production in Vermont. High energy costs relative to Canada was also mentioned as a challenge.

Loss of Mills

The loss of sawmills and pulpmills is a challenge, as is the fact that these mills have been replaced by logyards or concentration yards. When the sawmills go, the jobs go. The logyards can be managed by 1–2 people, where far more people were required to run a sawmill. This also leads to a downward pressure on price since concentration yards pay a lower price than mills.

The loss of Rutland Plywood was mentioned specifically several times. This represented the loss of birch market for some loggers. While people acknowledged that it’s not helpful to have mills right on top of each other, it’s also true that the cost of transportation to more distant mills can be high.

Labor Issues

Skilled labor is a challenge. Participants felt that technical schools were doing less and less and most programs were no longer relevant to the industry.

Getting youth engaged in the industry is another challenge that may eventually lead to an opportunity. The opportunity is getting more youth to be exposed to the industry. There is a need for tech centers to be more attuned to the businesses in their neighborhoods. There are great resources in communities, including underutilized resources such as people, businesses and infrastructure that could be used.

Education about the forestry and wood products industry encompasses general education, training programs, apprenticeships, college programs and job shadowing opportunities.

Certification / Local Wood

Certification seems to be a challenge. Participants felt like better practices are happening already, without certification. The cost to maintain certification has gone up. People want certified lumber, but are not willing to pay extra for it. Some participants reported that their recent experience with local institutions was that they are now more interested in local Vermont grown or sawn product. One person mentioned that he can get more for his furniture if he can say it is locally grown wood. This can be a challenge but also an opportunity.

There are disconnects in the supply chain for Vermont products. Some buyers want to know it comes from Vermont. Some producers want to be able to say that they're using Vermont material, but there is not a predictable supply. There is an opportunity for collaborative purchasing for sawyers and wood product businesses. There is also an opportunity to differentiate between sustainable and certified sustainable.

- ¹ “The State and Future of U.S. Forestry and the Forest Industry: Workshop Report and Recommendations.” Washington, DC. May 29-30, 2013. http://www.usendowment.org/images/Forest_Sector_Report_-_FINAL_9.5.13.pdf Accessed 07/15/14.
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