

# **The RVA Approach For Revitalizing The Wood Products Industry**

*By: Thom L. Labrie*

The forest products industry has at its fingertips the opportunity to significantly expand revenue streams, product offerings and market for its goods while simultaneously improving its environmental performance and status in the Green marketplace. This broad based nationwide opportunity has materialized at a perfect time when much of the industry has been negatively affected by unfair foreign competition, de-industrialization in America and competition from a wide range of other manufacturing and building materials. A dynamic combination of economic, social and environmental forces have haphazardly advanced to a point where the foundation for a new, far reaching, growth oriented and Green focused new sector of the industry could be born with little effort. This new segment could easily be called the wood “Recovery & Value Adding” (RVA) sector.

With a reasonable amount of vision, imagination, leadership, investment and commitment, this RVA sector would likely gain spontaneous momentum, rapidly picking up speed, participants, market support and extensive opportunities across the primary, secondary and specialty wood product manufacturing areas. Many existing wood processing operations would have access to growing Green market opportunities while many wood industry dependent rural communities that have been devastated by mill closings could see a brighter future on the horizon. The existing infrastructure of the forest products industry today would provide the immediate path to vertically integrate the new sector, which would in turn facilitate a very wide range of low to high skilled manufacturing sector employment opportunities. In turn, there would be exponential benefits generated for the many other industries that would provide support to this expanding new sector.

Connecting the dots between where the industry is today and where it could be headed in the near future is a simple exercise. The formula requires combining five key components into a naturally evolving and efficient working system. The elements include: 1) an abundant source of readily available and economic raw material; 2) harvesting and processing technologies; 3) value adding infrastructure; 4) merchandizing assistance; and 5) demand for the recovered wood products. Each of these components is in near perfect alignment with each other, which could make the process of implementing this RVA concept almost a matter of spontaneous combustion. With a little push or pull from the right direction, the forest products industry could get energized by a shot in the arm that it has not experienced in many decades.

The roadmap lays out this way. There are billions of board feet of readily available and recoverable timber that has been, and will continue to be on an escalating scale, victimized by hurricanes, fires, pest infestations, tornadoes, floods and other natural disasters. Much of this material can be converted into high quality and high value solid wood products with existing technology and industry infrastructure. The Green marketplace, which is expanding exponentially on a global basis, is looking for increasing varieties and volumes of environmentally friendly products. Products made from recovered materials is recognized and being Green. Both the traditional and Green medias are hungry for stories relating to activities and products that contribute to resource sustainability, lowering greenhouse gases, expanding the Green collar employment sector and taking the initiative to be pro-active towards environmental issues. This roadmap covers raw material supply, value adding, market demand, and a dynamic, global and free merchandising tool.

**Raw Material:** The raw material to feed this potentially expansive new RVA sector is readily available and rapidly growing in volume. Long term it will be derived from two distinct sources, pre and post consumer. These materials fall into the under-utilized and/or waste stream categories. In both cases there are many billions of board feet of recoverable material readily available and today going to waste. The first generation of RVA activities would likely focus on capitalizing on the traditional source for its raw material base, the forest. As this sector grows and matures, it would naturally expand its raw material supply chain further into other sources of pre-consumer fiber as well as deeply into the post-consumer side of the opportunity, which would include materials from pallet recycling, construction, deconstruction, demolition, sinker logs, transfer stations, resource recovery and other operations handling wood. The basis for this common sense prediction lies in the fact that most everything that can be manufactured from virgin wood can be made from recovered wood, and as demand for even Greener products evolves, the incentive to convert post consumer wood into saleable product should naturally materialize.

The natural progression towards a comprehensive RVA sector will occur for several significant reasons. First, wood is recyclable and is being rapidly eliminated as acceptable materials in more landfills and disposal sites every year. The increasing devastation of our forests, in conjunction with not recovering a reasonable level of useable material, has created a situation where the CO<sup>2</sup> and methane being released by dying and decaying timber is offsetting the volume of CO<sup>2</sup> that is being sequestered by our remaining forests. Depending heavily on converting under-utilized and waste stream wood into bi-products inevitably will add to global warming problems as the sequestered CO<sup>2</sup> is released from fuel, mulch and other residue products. To sustain our forest resources on an increasingly warming planet we will have to better manage this resource, which will absolutely include utilizing harvested material in a much more intelligent and responsible manner. Allowing millions of acres of victimized time to die and decay will also feed into the potential for even more fires and pest infestations. Common sense dictates that in the not too distant future we will be faced with the challenge and opportunity to convert a significant volume of victimized timber into solid wood products since this is the most responsible way to keep sequestered CO<sup>2</sup> sequestered.

In reference to the “Hurricane Katrina’s Greenhouse Gas Legacy” BIOstock Blog that I was recently given to read, I would like this opportunity to provide a very different perspective relative to a more pragmatic, big picture, financially attractive and overall environmentally responsible approach to dealing with the millions of acres of timber that has been victimized by wind, fire, pests, floods and other escalating natural disasters. If approached intelligently and responsibly, there is a dynamic opportunity at hand to foster significant economic development opportunities, the creation of thousands of low to high skilled jobs in the wood products manufacturing and resource recovery industries and their support sectors, the re-vitalization of much of the surviving forest products industry, the reduction of harvesting burdens on millions of acres of healthy and productive timberland and the sequestering of vast amounts of CO<sup>2</sup> in the process. All of this can be achieved by simply applying vision, common sense, modern technology and the incentives necessary to attract Green minded leaders and entrepreneurs to the opportunity.

Currently there appears to be a restrictive two avenue approach, selling sawlogs to local sawmills and grinding the balance into commodity bi-products. For a number of reasons this very limiting attempt at a solution cannot deliver the results that are needed. A viable long term solution will require a comprehensive approach that will generate maximum economic, social and environmental benefits for

the capital, effort and resources that will be invested into the initiative. To accomplish all of this there will need to be a heavy focus placed on generating a wide range of value added solid wood products from as much of the recovered timber as possible. This strategy will dictate that the resource will have to be distributed over a much broader geographical range and to a wide variety of primary, secondary and specialty wood product manufacturing facilities, as opposed to only local sawmills, with a strong emphasis on minimizing the volume of higher value materials that would be fed to chippers and grinders. Based on the existing hands experience, technology, wood products industry infrastructure and growing demand for environmentally friendly products, all of the key elements are in place to put such a program together in a short timeframe.

The current two avenue approach overlooks numerous pitfalls. Focusing heavily on converting vast amounts of recovered fiber into commodity bi-products limits economic development opportunities and creates a much larger environmental footprint than is necessary in a comprehensive wood recovery and value adding (RVA) initiative. Bi-products provide for only limited economic development opportunities since the processing is mostly a mechanical operation with more automation and few people involved. There are also issues relative to how much volume local contractors and facilities can handle as well as the economic implications as markets are burdened with over inventories of bi-products. Large wood grinders and chippers generate a very limited range of products while creating a relatively large environmental footprint since their machinery requires very high horsepower engines that consume high volumes of fuel and produce large quantities of emissions. Most of the products they generate end up releasing sequestered carbon which add to our escalating greenhouse gas problems. Bi-product production needs to play a vital roll in the program, but its roll needs to be sized in a responsible manner.

On depending on only local sawmills as the primary outlet for higher value timber, there are a number of reasons what this approach is too limiting. First, there has been a significant reduction in numbers of commercial sawmills over the country in the past decade. Second, following serious natural disasters that devastate large tracks of timber, local mills rapidly become over inventoried with recovered logs and usually have to shut off suppliers, no matter what the price is for the material. Next, sawmills expect to purchase victimized timber for a very low price, reducing the incentive for logging contractors to recover more of the resource for solid wood product utilization. Most sawmills have a limited production capacity and can handle only an extremely small quantity of the overall available timber, which is a critical factor when the resource needs to be recovered and processed in a short timeframe to keep it from suffering more damage from staining, pests and other factors.

Adding to the challenge is the fact that due to the non-existence of a comprehensive RVA system that is structured to efficiently capitalize on “After the Disaster” recovery opportunities, the value of the high quality timber is so low that the cost of transportation beyond local mills is prohibitive. Identifying all of these current bi-product and local mill limitations helps to clarify why a much broader approach needs to be developed if the opportunity to convert mountains of recoverable wood into manufacturing sector jobs, value added products, improved forest resource sustainability initiatives and millions of tons of carbon sequestered products is going to be capitalized on successfully.

With raw material sources abundantly available, bi-product processing technologies in place, the need to reduce greenhouse gases rapidly on the rise, and the demand for Green products expanding

exponentially across the globe, creating a comprehensive national RVA initiative requires providing only three additional strategic new elements to what exists today, conversion, value adding and product merchandising. Conversion involves the efficient transformation of higher value timber into broadly merchandisable products in a cost effective and environmentally responsible manner. Processing involves connecting to an existing network of woodworkers to manufacture value added products. Merchandising involves implementing an educational and promotional initiative that creates interest in, and demand for, the recovered wood products generated through the RVA system. All of these key elements are at hand and can be readily tapped into once a serious commitment is made to implement and support a dynamic RVA initiative.

The ability to convert large volumes of recovered logs into broadly merchandisable higher value products directly at recovery sites in an efficient, cost effective and environmentally responsible manner has been the missing link, until now. Without the proper technology available to accomplish this vital task, the forest products industry has deemed the concept of aggressive and comprehensive recovery programs to be a waste of time and resources. Recently, due to the tremendous recovery opportunity relative to the expansive emerald ash borer infestation, a cutting edge log recovery system was strategically developed for the purpose of vastly simplifying the process of converting recoverable timber into solid wood value added products following hurricanes, fires, pest infestations, tornados, floods and so on.

This portable rapid deployment system is totally self contained on a single conventional trailer, can process tens of thousands of board feet of product per shift with only one operator, and creates a very small environmental footprint relative to its resource recovery capabilities. This technology affords the unique opportunity to provide products from the forest directly to primary, secondary and specialty wood product facilities. It can be rapidly and efficiently moved directly onto recovery work sites and work along side grinders and chippers to provide for a more comprehensive recovery and value adding opportunity for project operators. With this key element in the wings, all of the elements necessary to create a total solution approach to intelligently and responsibly managing timber resources victimized by natural disasters are available.

As far as processing and adding value to the recovered stock, there is already an infrastructure of woodworking operations across the country capable of immediately blending into emerging RVA programs. Since any product that can be manufactured from virgin wood can be manufactured from recovered wood, and the process of converting recovered wood into thousands of different conventional wood products requires no different machinery than is already in small to large woodworking operations across the country, the new business and product opportunities generated by timber recovery initiatives will be of great interest to many woodworking companies. The same skills and processing techniques are all that is required. The only two elements missing here are connecting these facilities to sources for recovered wood and convincing them that there is a market for recovered wood products. Once these dots are connected, the value adding aspect of the initiative will be in place.

The final key element required for building a financially and environmentally successful long term national RVA initiative, is “MERCHANDISING”. With the demand for environmentally responsible (GREEN) products growing exponentially across the globe, this task is made much easier by the fact that wood is by far already the most environmentally friendly manufacturing and building material on

earth. With products manufactured from wood salvaged from recovery operations already accepted as being Green products in conjunction with the products made from a clean and renewable natural resource, that if not recovered could add vast amounts of methane and CO<sup>2</sup> to the already serious global warming problems, the merchandising of the goods is made dramatically easier.

What is at stake in the big picture is the at hand opportunity to simultaneously facilitate vast economic, social and environmental benefits within a short timeframe and at a bargain basement price. Billions of board feet of a readily available, potentially wasted and victimized natural resource can be fed into the existing wood products manufacturing sector to help re-vitalize many rural communities devastated by the loss of their local wood processing mills. Untold volumes of CO<sup>2</sup> and methane can continue to be sequestered to help reduce global warming problems. Mountains of useable wood can be shifted in supply chains to significantly reduce harvesting pressures on, and the sustainability of, millions of acres of healthy, vigorous and CO<sup>2</sup> timber stands. Ready to contribute to the effort are both the traditional and Green news and marketing medias looking for dynamic press and advertising opportunities that will help connect the initiative and recovered wood products to countless Green minded consumers.

With countless billions of board feet of victimized timber available, and billions more board feet of recoverable wood available from expanding post consumer resource recovery channels, the forest products industry is uniquely positioned to dramatically capitalize on expanding its manufacturing, value adding and merchandising opportunities while simultaneously improving its overall environmental performance and Green marketplace image. The creation of a dynamic, growth oriented and Green focused “RVA Sector” within the existing forest products industry is today at its finger tips.