

LANDOWNER UPOCATE 1st Quarter 2021

Industry News

 Wood buildings should be a requirement of any climate change policy

(November 13th)

What a building is made of can have a huge climate impact. One simple solution is to switch to wood, which sequesters carbon, as a primary building material. Switching to wood on a wide scale could bring emissions down by using a material that naturally absorbs and sequesters carbon from the atmosphere.

- Fast Company
- Commentary: Modern wood heat finally achieves federal tax equality (January 2nd)

The Maine congressional delegation obtained passage of key portions of The BTU Act in the bipartisan Consolidated Appropriations Act of 2021. This common-sense legislation finally provides Maine homeowners with the opportunity to install highly efficient modern wood heating appliances with the same federal tax credit afforded to other renewable technologies such as solar, wind, fuel cells and geothermal heating.

- Press Herald
- New study shows paper-based, single-use packaging offers reduced environmental impact than reusable packaging (January 15th)

A new Life Cycle Assessment (LCA) study, conducted by engineering consultancy Ramboll for the European Paper Packaging Alliance (EPPA) demonstrates the significant environmental benefits of single-use products compared to re-use systems particularly in saving carbon emission and freshwater consumption.

— PaperAge

Industry Overview

Forestland Operations

An early start to winter this year helped ease the transition between fall and winter operations in the forests of the Northeast. Normally, the persistent autumn rains force us to throttle back our activities and wait out the weather, but this year there was just enough cold to let crews into sensitive areas and get started earlier than average. By mid January, once the cold sunk down into the forest ground, the winter logging season reached a crescendo quickly and remained that way through February.



A load of sawlogs heads for the mill in early March 2021.

Throughout winter there was limited snowfall in the region. On the plus side, this kept expensive snowplowing activities to a minimum and hardly any productivity was lost due to excessive snow or bitter cold. On the other hand, snow acts as an insulating blanket on top of frozen ground, which can prolong the winter logging season by several weeks. The result was that the temperatures began to rise, the thaw set in fairly abruptly.

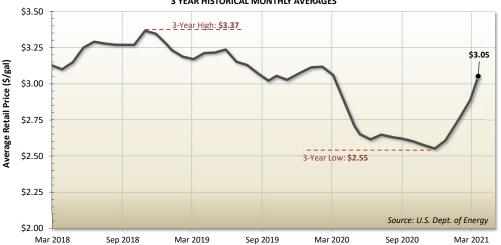
By mid-March the soils were softening and conditions were more touch and go. In order to help sustain the flow of wood during this time, mills were flexible with their hours, adjusting their shifts to permit night deliveries when the roads were colder and less vulnerable. As a result, we were able to haul the most perishable products to market without issue despite the sudden shift in logging conditions. As of this time, the roads have started to dry out and crews will soon return to give attention to the few remaining winter jobs that need cleaning up.

The cost of diesel fuel - a significant consumable for our logging crews - has been on a steady rise this winter, hitting a low just as the results of the presidential election became clear and then rising up to pre-pandemic levels (see chart). The pandemic has had a substantial impact on the U.S. energy sector, both in terms of consumption and output. What does this mean as we emerge from the pandemic? Most economist predictions we see are hedging their bets, but from our standpoint the upward diesel price trend bears watching.

As reported in recent editions of this newsletter, our work in the woods continues safely despite the ongoing pandemic. There have been remarkably few significant transmissions among our field staff, our logging crews, and at our regional mills. While forest product markets have been on a roller-coaster, we are thankful that the naturally distanced nature of our work has permitted us to respond to the volatility.

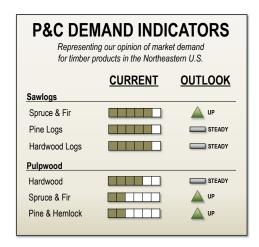
NUMBER 2 DIESEL FUEL PRICES - NEW ENGLAND

3 YEAR HISTORICAL MONTHLY AVERAGES



Forest Products Markets

The sudden shifts in the markets brought on by the pandemic and other swift unexpected events has been jarring, to say the least. At this time last year, like the rest of the world, we felt as though we were sitting at the peak of a roller coaster, holding on tight, and knowing we'd be tossed around for a while. Now that things appear to be calming down and vaccinations becoming more widely distributed, it feels like a whole different world.



For forest products, the rule of thumb in this new world is: if it is used in a building or construction material, the demand for it is at a fever pitch. The confinement brought on by the pandemic caused residential renovations to surge, and new home construction soon followed. According to the U.S. Census Bureau, new home construction permits were 17% higher in February of 2021 than they were at the same time in 2020 (i.e. pre-pandemic). Industrial construction also accelerated, particularly later in the pandemic's cycle, fueled by consumer consumption and optimism for manufacturing as the pandemic abates.

Landowners should be forewarned that markets are still quite fluid, and in any given quarter, local supply and demand can matter just as much as global trends. Raw material Inventories at our regional markets are generally higher than normal for this time of year, but some manufacturers were caught off-guard with the sudden shift in weather and its impact on the flow of timber coming in. With deliveries now slow due to mud season, markets are likely to get anxious to refill their feedstocks.

Pulpwood Products

Demand in the pulpwood sector regionally continues to try to seek stability, due to the shift in consumption caused by COVID-19 but also swift changes in regional appetite for softwood pulpwood. Although demand is not intense, it feels as though there is more draw for softwood pulpwood than there was a year ago. Mills are consuming spruce & fir pulpwood, and other softwood species such as hemlock and pine are seeing more demand as well.

It would be impossible to describe the current regional softwood market without talking about the two big stories: the loss of the Pixelle Specialty Solutions mill because of a boiler explosion almost exactly one year ago, and the new entrant mill Nine Dragons located in Old Town, Maine.

The dramatic loss of the Pixelle mill affected the consumption of softwood pulpwood in several ways, the most obvious of which was the permanent loss of demand from a significant consumer. But it also left a substantial amount of pulpwood stocks in the supply chain with no clear destination. Throughout the year, Pixelle worked to sell this large quantity of softwood pulpwood to anyone that would purchase it, which meant that loggers and landowners would take a second seat. A year into this process, a lot of headway has been made, but the market is still finding itself absorbing this excess volume.



Maine stands to gain from carbon offsetting, but whether it fights climate change is complicated (January 16th)

There is evidence that the benefits of carbon offsets to the climate are overstated and that carbon markets allow large polluting companies to avoid making the tough choices needed to reduce their carbon emissions. Proponents, meanwhile, point out that offsets are protecting nature and are part of a number of solutions to limit climate change.

- Bangor Daily News

Total U.S. printing-writing paper shipments decreased 26 percent in December 2020 (January 21st)

According to a December 2020 Printing-Writing Monthly report released by the American Forest & Paper Association (AF&PA), total printing-writing paper shipments decreased 26 percent in December compared to December 2019. U.S. purchases of total printingwriting papers decreased 22 percent in December compared to the same month last year.

-PaperAge

Biocarbon processing plant plans to locate at East Millinocket mill site (February 4th)

A new Maine company plans to build a plant that will sequester carbon from Maine forests at the former Great Northern paper mill site in East Millinocket. Standard Biocarbon Corp. has signed a letter of intent with East Millinocket Industrials Inc. to site a pyrolysis plant at the former mill site. The plant would convert low-grade biomass into biocarbon, the carbon component of wood.

Maine Biz

Opinion: Invasive Insects and Diseases Are Killing Our Forests (February 2nd)

Insects and fungi have swept across North America with frightening regularity, laying low the chestnut, the elm, the hemlock and, most recently, the ash. Each of those trees anchored natural ecosystems, and human economies and cultures. And while climate change and wildfires grab the headlines, invasive species have so far proved to be a far greater threat to forest biodiversity in the temperate world.

—New York Times

The newly started Nine Dragons mill is also influencing regional demand for softwood pulpwood. This mill is now running consistently and consuming fiber steadily after being plagued with startup challenges. The big question had been whether or not the mill would be able to consume hemlock in the quantities they were expecting, and it appears as though they have ironed out the kinks. Additionally this mill has recently invested in their biomass boiler to provide heat & power to the facility, which will help clear out some of the lower quality material that previously had no home.

The other dynamic affecting the softwood pulpwood market is the massive amount of byproduct chips currently being created at our regional spruce & fir sawmills. This is a clean, inexpensive source of fiber for softwood pulp mills that competes with volume from timber suppliers.

Our regional hardwood pulp mills have been running consistently and consuming steadily, but raw material inventories are slightly lower than usual. One reason for this is loggers favoring softwood areas over hardwood when they can in order to respond to the significant demand from spruce & fir sawmills. The other reason is that these pulp mills compete for raw material with engineered timber product manufacturers, which are used in construction. This includes structural engineered lumber and engineered panels. These items, like all other building products, are very much in demand at the moment.

Our crystal ball for the regional pulpwood outlook is admittedly cloudy, but we are expecting some small upward price movements for softwood pulpwood, and flat pricing for hardwood. We believe the current consumption trends will continue. Of course, this assumes no other significant market shocks.

Sawn Products

Softwood Sawstock

As referred to above, the meteoric rise in demand of softwood lumber continues to push boundaries. A prolonged period of low interest rates and underbuilt housing stocks, combined with pandemic-affected building, has fueled the surge. While there has been a large amount of volatility in lumber indexes, the upward trajectory has been steady, and optimism reigns. In a business that survives on production, spruce & fir dimensional lumber manufacturers in the region are doing whatever they can to increase their output, including adding shifts.

More lumber output at a mill means more waste chips are being produced. In the not so distant past, managing the byproducts has been a substantial challenge for spruce & fir sawmills. Thankfully, today mills have no problem selling this material to pulp mills. We would not be seeing the production numbers we do today if it weren't for this important & healthy symbiosis.

Upgrades and improvements at our regional spruce & fir sawmills have begun to pay off, and the timing has been perfect. Mills which have undergone capital improvements are running well and we understand they are starting to hit the production numbers that justified the investment. At this point, the only concern might be whether or not they can continue to get the feedstock of spruce & fir from timber suppliers so that they can meet the demand for finished product.

The market for white pine lumber, while much smaller and more localized, has seen a similar trend as spruce & fir. This product, used in furniture, cabinetry, and finishes, is in high demand and many building contractors are struggling with availability. Unlike spruce & fir sawmills, which are volume business, pine mills

LANDOWNER UP CATE

Proposed forest rules could hurt Maine economy, cost jobs, delegation says (February 9th)

Proposed U.S Dept of Agriculture rules that would limit the size of private forest land qualifying for certain federal programs would devastate the state's forest, recreation and conservation economy. The USDA in December proposed a 45,000-acre threshold for private nonindustrial forest land eligible for Natural Resources Conservation Service programs, including grants and loans. That threshold would exclude a variety of Maine landowners that contribute to the economy and provide logging jobs.

— Maine Biz

Northwestern forest to be test bed for semi-autonomous logging truck trials

(February 5th)

A chronic truck driver shortage and a thriving sawmill industry in Ontario have steered Nawiinginokiima Forest Management Corp., toward finding a high-tech, off-road solution. The company, who is partnering with Provectus Robotics Solutions, is offering the proving grounds this year for some ambitious and innovative trials using semi-autonomous trucks. There will be a year-long pilot program to see if their off-the-shelf technology is adaptable to Canada's forest industry.

— Northern Ontario Business

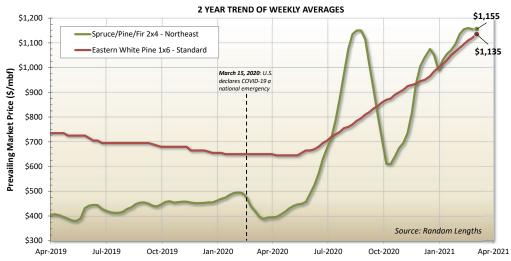
Task Force Eyes Carbon Sequestration Potential Of Maine's Forests

(February 8th)

A new state task force will convene for the first time to look for ways that the state's 86,000 woodland owners can help the state meet its goal of carbon neutrality by 2045. Efforts to preserve forestland, including working forest, would get a boost if small- and medium-size landowners could benefit from carbon market programs, under which landowners are compensated for retaining a certain level of carbon locked away inside the trees, and cut lumber.

— Maine Public

PRICE TRENDS IN SOFTWOOD LUMBER



focus on quality, and therefore have a harder time scaling up production to match demand. If the lumber demand continues to rise, we expect regional pine log prices to advance upward.

Hardwood Logs

Hardwood lumber demand has lagged demand for softwood, but is now on a similarly striking upward trend for all the major species in the low and competition for logs is high. That has played itself out by mills alternatively outbidding each other for volume.

Demand for low grade hardwood logs used in pallets, ties, and mats have seen a similar increase region wide. Once again, commercial & industrial construction and global shipping trends seem to be factoring into the demand. These industrial

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 Mainers have little awareness about full range of forest products industry, survey shows (February 18th)

A public survey shows Mainers are generally bullish about the future of the state's forest products industry, but have little awareness of how it's changing.

—MaineBiz

 Maine considers ban on aerial herbicide spraying in forestry (March 3rd)

Maine lawmakers are considering a proposal to ban aerial spraying of some herbicides in forestry.

The proposal focuses in part on glyphosate, a widely-used herbicide that is available commercially under the trade name Roundup. It would also apply to other synthetic herbicides.

— Bangor Daily News

 The US wood shortage can be traced to a decades-old beetle infestation in Canada

(March 18th)

Lumber is in such short supply in the US that its prices have skyrocketed to an all-time high—so much so that the expense of building the average single-family home has risen by \$24,000 since last April to reflect the cost of wood. The reason, in significant part, is the changing climate—and how it enabled a beetle species to infest forests in the Canadian province of British Columbia years ago.

— Quartz

RECENT PRICES IN HARDWOOD LUMBER - NORTHEAST



northeast. For the past few years, prices have been suppressed by trade tensions among our major export destinations, however alternative markets and circumventing export methods seem to have filled the gap. Hard maple, which represents the lion's share of the volume in our regions, has led the way. Manufacturers across the grade spectrum are feeling the pressure.

Demand for hardwood grade logs used in lumber production is also very high, attributable to both the demand in lumber markets, but also to the lack of local availability. As spruce & fir log demand spiked, timber producers relocated out of hardwood stands and therefore produced fewer hardwood logs for the mills. Going into winter, hardwood sawmills were geared up for production on winter deliveries that never really reached expectations. As a result, inventories are

mills are paying more for logs and reaching out further to source the material. In some cases, they find themselves competing with the low-end prices offered by grade sawmills.

Summary

The pandemic has certainly left its mark on the northeast forest products industry over the past year. Wood products used for construction materials and industrial uses have boomed, while pulp and paper products have remained suppressed but relatively consistent. A shortened winter season may create challenges in the near term for landowners and mills alike, but we can't help but feel the prevailing optimism as our economy rebounds from a dark period.

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Please note: This report is intended to be an unbiased and accurate source of information on timber markets and timberland investments. However, timber market conditions and the forest products industry vary greatly within and across regions and depend on a substantial number of factors that this publication does not cover. Therefore, anyone using information published in this report for any specific purpose, sale or contract does so at his or her own risk. Information included in this report and provided by other sources is believed to be reliable and accurate. Prentiss & Carlisle assumes no responsibility for errors or omissions.