

An Exciting Future for Ledwidge Lumber

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Ledwidge Lumber is building on their 80-year history and taking the sawmill operation, located in Enfield, Nova Scotia, toward an exciting future with state-of-the-art upgrades to milling processes—and new projects directed to advanced engineered wood products and manufacturing bio-fuel from mill residues.

Founded by Laurie Ledwidge in 1943, the current management team includes Laurie's sons: Doug in the position of President and Jim filling vice-president and woodlands manager positions. Jim and his wife Rose's eldest daughter Kim serves as Financial Controller, while youngest daughter Cassie Tuple leads Human Resources and Communication. Their son Kyle manages the heavy equipment fleet in the mill yard, as well as road building in the forestry operations. Mark McGrath sits in the general manager position.



The Ledwidge Lumber management team: Kim Ledwidge, Mark McGrath, Cassie Tuple, Jim Ledwidge, Doug Ledwidge, and Kyle Ledwidge. As the last names indicate, all are Ledwidge Family members with the exception of Mark McGrath. Ledwidge directly employs two harvest contractors. They are supported by the road building team at Ledwidge, which includes a 32-tonne Hyundai excavator, Cat D5 dozer, and road grader supported by a seasonal contract grader.

Forestry staff includes forest tech Rob Lively, forester Ben Hennigar and wood buyer Shawn Tuple. The forestry team offers woodlot appraisal, forest management services and silviculture services.

Jim and Rose also manage Treeline Trucking, which operates one tractor trailer hauling logs, along with a half-dozen chip trailers hauled by hired power.

Current annual mill production is closing in on 75 million board feet annually. Lumber is marketed about 30 per cent domestic and 70 per cent export, primarily into the eastern seaboard of the U.S. Lumber is brokered through Eacan Timber.

In recent decades, Ledwidge has dealt with numerous challenges, both economic and natural. The closure of the Northern Pulp mill drastically reduced the provincial market for pulp chips. In 2003, Hurricane Juan severely impacted their 25,000 acres of freehold woodland, and then, the following winter, a snow event dubbed White Juan impacted forest stands, harvest and transport.

In 2022, tropical depression Fiona swept across central and eastern Nova Scotia, resulting in severe rainfall and subsequent flooding and large scale windthrow.



In the summer of 2023, a severe weather event dropped a summer's worth of rain in a matter of a few hours, halting woodlands operations and wood flow. In addition to

numerous road closures across the central portion of the province due to washouts, the event flooded roads to the mill, and damage to a bridge shut down access to the mill for more than a week.

Additionally, two major forest fires through the summer of 2023 shrunk the wood basket, and slowed wood deliveries.

The closure of the Northern Pulp mill in 2020 resulted in the loss of a major pulp chip market for Ledwidge and other sawmills across Nova Scotia, as well as southern New Brunswick.

On the equipment side, primary processing at the mill is by a HewSaw R200 A.1, which was commissioned in 1997, and a HewSaw R200 1.1, which became operational in 2004 and was recently upgraded with new machine automation. Ledwidge processes eight- and nine-foot spruce and balsam fir logs and the company considers the three Maritime provinces as their wood basket.

Ledwidge pays a distance transport bonus for high mileage shipping.



Sawmill updates in 2023 included a screw infeed from Austria-based Springer, and a new Nicholson A8 debarker, which works alongside an older Carbotech double rotor debarker.

Molnar Welding handled the installation of the new Springer screw infeed. “Molnar was a

comprehensive partner for the new infeed project, completing it with high quality work and meeting time schedules,” shared Cassie Tuple.

From the debarkers, logs are scanned with an Autolog True Shape 3D scanner which



was installed in 2020. Logs greater than five-inch diameter are directed to two bins dedicated to the HewSaw R200 1.1, and smaller logs are sorted to four bins according to diameter class, which feed the HewSaw R200 A.1.

The HewSaw R200 1.1 is controlled with a scan and set system with a flow of 23 logs per minute. The HewSaw R200 A.1 is batch fed with flow rate of 33 logs per minute.

On passing by the HewSaws, Tuple explained that their sawyer, Bussy Graham, has been sawing at Ledwidge for a very impressive 48

years. “He knows precisely what every log is going to saw out before it gets to the saws. We have many dedicated and long term employees—about a third of our employees have been with us for more than 20 years.”

Another recent upgrade was the addition of a new Autolog trimmer optimizer in 2022, which commands trim sizes for the Carbotech trim saw.

Trimmed lumber is sorted to a 63 bins system manufactured by Carbotech. The stacker system is also of Carbotech manufacture.

Lumber drying is handled with two Wellons track load kilns, and two COE package load kilns with Wellons controls. In December 2021, Ledwidge commissioned their fifth kiln, manufactured by MEC, bringing total capacity to 550,000 board feet. Boiler energy is generated by a Wellons and a FEI boiler, consuming planer shavings.

The planer mill is built around an A20-12 Yates planer. Tilt hoist is Carbotech and lumber enters the planer wane up and the set takes a heavier cut off the top and a lighter cut off the bottom, in an effort to reduce wane and increase lumber grade. Feed rate is 130 to 140 lugs per minute.



Dressed lumber is automatically graded by the Autolog ProGrader installed in 2022. Graded lumber is ink stamped and assigned an individual serial number.

Remarking on the numerous production equipment upgrades made in the past few years, Tuple explained: “We had a long list of upgrades we wanted to get done in the mill, and when COVID caused the renovations, housing and DIY markets to drastically increase, we had the cash flow to make them happen. Some of the technology was becoming obsolete and updates were necessary.”

The mill upgrades were slowed due to supply chain hold ups, which challenged the upgrading process, but Tuple pointed out that employees embraced the projects. “Our employees are a loyal and passionate crew with many years of experience. They have truly shone through all of these changes and impressed us with their ability to adapt.

“Autolog has been fantastic in helping us to transition with the new ProGrader system, and the Nicholson debarker install was seamless,” she added. “The Springer Screw feeders have caused us some issues. Springer is designed and produced in Austria, and the size of our logs here on the east coast of Canada have presented challenges for the design. Springer has continued to assist to reduce skews and increase our piece count.”

Springer said it is grateful to Ledwidge for their belief in their equipment and for their tremendous support.

With over 150 screw systems installed around the world, companies are bound to encounter different log handling opportunities, says Springer. In the case of Ledwidge, with some smart controls and small mechanical modifications, Springer says they were able to overcome these log opportunities and deliver a successful product to Ledwidge. The company says it provides smart, simple, well-designed, high-quality solutions to eliminate backlog situations.

Yard equipment on the log side includes three Fuchs loaders along with a Prentice ATL model. On the lumber side, John Deere and Hyundai wheel loaders handle lumber and chip/bark loading while a new JCB 427 wheel loader, from A.L.P.A. Equipment, the JCB dealer for Atlantic Canada and eastern Quebec, was recently getting a ‘try out’.

While marketing high quality construction studs has been the primary revenue generator for Ledwidge for many decades, management is committed to seeking efficiencies and new products.

Ledwidge Lumber has entered into a joint venture with Vytterra Renewables, the Canadian subsidiary of Ensyn, to develop a biofuel plant adjacent to their sawmill. Ledwidge has achieved zoning approval to site the plant. The plant will consume mill residual fibre (white wood) to produce heating fuel.

“We have been on the lookout for innovative products to utilize our sawmill residuals for a long time,” shared Tuple. “Vytterra’s biofuel process has been successful in Ontario, Quebec and in the U.S. for over 30 years, and when Vytterra came forward with a proposal for a partnership, we jumped at the opportunity.

“This will be the first decarbonization facility in Atlantic Canada to convert sawmill residues into low-carbon liquid fuels. The markets for sawmill residuals such as bark, wood chips, and sawdust are variable, and there is an excess of these residual products, as well as low-grade wood that was once used as pulp wood in the province. This plant will provide a market for the residuals and will become a dependable, value-added solution for sawmill residuals and the biofuel produced will assist our province in reducing its carbon footprint.”

The commitment of Ledwidge to innovation and market development has led to another joint effort toward value add manufacturing, with Elmsdale Lumber Company, to build a mass timber manufacturing plant. Elmsdale is a long lumber mill, located just a few kilometres up the TransCanada highway from Enfield.

“We are continually seeking out ways to add value to our products and mass timber products are not built in Atlantic Canada as of yet,” says Tuple. “There is a very real opportunity to build mass timber products here, and supply construction projects requiring those products. There is a huge opportunity to incorporate mass timber in commercial and industrial construction.

“Wood is the only major building material that grows naturally and is renewable,” she added. “Wood products have the ability to store large amounts of carbon and as the

building sector is a large contributor to greenhouse gas emissions, building with wood presents a great opportunity to mitigate climate change.”

Currently, samples of lumber produced at Ledwidge and Elmsdale are being scientifically tested for its suitability for application for mass timber. With approval of the lumber for mass timber use, the project will move forward and they will eventually see a mass timber manufacturing plant constructed in the region.

Ledwidge’s wood supply is from 300 producers across Nova Scotia, Prince Edward Island and southern New Brunswick. A significant portion of the current wood supply generated from Nova Scotia is clean-up from the 2022 tropical depression Fiona, which devastated a swath of forest land across the central part of the province, from the Northumberland Strait to the Atlantic Coast.

“Currently, we have a long list of woodlot owners looking to have damaged stands salvaged,” says woodlands manager Jim Ledwidge. “A large percentage of Nova Scotia contractors are currently working on salvage and some New Brunswick contractors have come to help handle the salvage demand.”

He explained that the storm delivered circulating winds which threw trees in multiple directions, creating extra challenges for bunchers and harvesters.



While Mother Nature has presented multiple challenges for Nova Scotia sawmilling, Ledwidge Lumber is taking them in stride and aggressively building innovation into their production processes—and looking outside the box for new and innovative products to take them forward.