Department of Economic
& Community Development

SOFTWOOD PULP INDUSTRY REPORT PURSUANT TO RESOLVE 2021, Ch. 47
Report to IDEAB Committee
Prepared by Maine DECD Office of Business Development
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Softwood Surplus

In recent years, the State of Maine has experienced a surplus of softwood pulpwood and low-quality forest residuals that lack viable markets. These residuals are byproducts of Maine's forest industry. Several factors have contributed to this, including the closure of pulp and paper mills, a digester explosion in Jay in 2020, pandemic-related market shifts away from writing and printing papers, and a robust sawmill industry that generates a high quantity of sawmill residuals.

The quantity of excess wood varies over time but has increased since 2010. According to the Maine Forest Service, the total loss of local production of local wood decreased by approximately 2.8 million tons between 2010 and 2020.[1] The amount of softwood pulp market lost due to the explosion at the Pixelle Specialty Solutions pulp and paper mill in April 2020 is approximately 1.5 million green tons per year, which represents over half of this surplus.

The industry-led effort Forest Opportunity Roadmap Maine (FOR/Maine) has also quantified the current harvest and use of softwood (see Attachment 1 for 2021 Maine Wood Volume and Projection Study Update). This data shows that there has been a slight increase in softwood usage due to new sawmills or increased capacity at facilities in Dover-Foxcroft, Jackman and Enfield.

Overall, it is reasonable to say that the amount of surplus softwood is approximately 2 million green tons per year. This estimate is further supported by the Maine Forest Service's Wood Processor Reports, 2001-2019 (aggregated).[2]

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[1] Patty Cormier, Maine Forest Service.

[2] https://www.maine.gov/dacf/mfs/publications/annual_reports.html

Industry Impacts

A surplus of pulpwood and other low-value woody biomass means that the forest industry does not operate as efficiently as possible. The negative impacts of a wood surplus are felt along the entire length of the forest industry value chain, from the landowners, to loggers/truckers, to sawmills and pulp/paper mills, to consumers and communities. A surplus also means that landowners are less likely to harvest because they do not have the markets for the lower-value wood that would be harvested along with other products. See Attachment 2 for Wood Supply Chain diagram from the Maine Forest Service, which shows how critical pulpwood and biomass is to the overall system.

Seeking New Markets for Surplus Wood

The Maine Department of Economic & Community Development (DECD) is actively seeking markets for the surplus wood. Specifically, the Office of Business Development, which is tasked with investment attraction activities for the State, seeks companies, investors, and technologies that fit with Maine communities and could use some of this wood. This investment attraction work includes the following efforts:

- Supporting Governor Mills' leadership in encouraging the U.S. Environmental Protection Agency to include Maine's forest residuals in the definition of "renewable fuel" per the federal Renewable Fuel Standard. If included, this will enable sustainably-harvested forest residuals to be converted into advanced biofuel (see Attachment 3 for Governor Mill's letter to EPA).

- Proactively pursuing companies that can use larger quantities of the type of wood residuals that Maine has in excess. This includes specific industries such as Medium Density Fiberboard (MDF), mass timber (cross laminated timber or CLT), and biofuels. The pursuit of these specific types of companies is encouraged and supported by Maine's existing forest industry leaders and organizations.

- Engaging with former mill towns with idle industrial assets available for re-purposing and marketing these assets directly to companies/investors. Examples of towns include (but are not limited to): Ashland, Lincoln, Millinocket, Madison, and East Millinocket. So far, several projects have been proposed for these towns, specifically projects that use low-grade wood residuals to make new products, such as biofuels and biochar (a soil amendment). The Office of Business Development has also recently launched an on-line tool to showcase properties available for reinvestment at selectmainesites.com. This is a tool that investors and Maine communities have told us repeatedly they need.

Continuing to Support Harvest Infrastructure and Workforce

In addition to these investment attraction efforts, Maine DECD is also supportive of building a robust workforce for the forest industry, including the logging industry. In September 2021, DECD Commissioner Johnson visited the mechanized logging operations program (MLOP) in Penobscot County to learn more about how the State can support this critical workforce development/training effort. The industry has voiced concern that one session of MLOP annually is not enough to fill industry employment needs. DECD is supportive of efforts to expand this critical program to two cohorts annually. Information about the Mechanized Logging Operations Program can be found here:

- https://maineloggers.com/mechanized-logging-operations-program/

- https://www.nmcc.edu/industry-customized-training/mechanized-forest-operations/

For Career and Technical Education resources in Maine, there are currently five CTE's with logging programs:

- Region 2 (Dyer Brook)
- St. John Valley CTE (Frenchville)
- Region 9 (Mexico) (please note that Region 9's program is not operating in 2021-2022 academic year due to low enrollment)
- Foster Tech (Mt. Blue/Farmington)
- Oxford Hills (Norway/South Paris).

Also, the Maine Bureau of Parks and Lands has a new grant program for CTE programs to purchase upgraded equipment. The grant program provided its first three grants to CTE's this past fall: Oxford Hills, Foster Tech and Region 2. The CTE programs are in need of new equipment and this grant program will help, but stakeholders within the logging industry have reported that a substantial amount of additional financial support is needed for the CTE's to purchase upgraded equipment to ensure that Maine's infrastructure for harvesting wood and training new wood harvesters remains strong.

Progress Towards Our Goal

Numerous leads and opportunities are being pursued for forest industry projects that can use the surplus softwood to make new products and create quality jobs for rural Maine. The following table outlines specific opportunities that are in process and the quantity of wood they are likely to consume.

STATUS	MILL/FACILITY	TOWN	WOOD CONSUMPTION (green tons per year)*	SOURCE
UNDER CONSTRUCTION	GOLab	Madison	236,000	company estimate
UNDER CONSTRUCTION	Louisiana-Pacific Expansion Project	New Limerick	100,000	company estimate
LIKELY	Biofine	Lincoln	66,000	company estimate; Phase 1 only; subsequent phases will be 5-10 x this amount of wood
LIKELY	Standard Biocarbon	East Millinocket	6,000	company estimate
POSSIBLE	CLT Company (confidential)	TBD	100,000	estimate based on similar facility in WA state
POSSIBLE	Maine Plywood LLC	Bingham	81,000	company estimate
POSSIBLE	MDF Plant	TBD	360,000	estimate based on similar facility in Ontario
POSSIBLE	Biocrude Oil (Biofuel)	East Millinocket	130,000	estimate based on similar facility in Quebec
POSSIBLE	CLT Plant - Ligna Terra	Lincoln	250,000	per the Town of Lincoln
POSSIBLE	Pellet Plant (confidential)	TBD	2,200,000	confidential
POSSIBLE	Advanced Biofuels Biorefinery (output of 15 MGY heavy fuel)*	TBD	334,000	industry estimate
* estimates only		**TOTAL:**	**3,863,000**	**green tons per year**

In conclusion, Maine DECD is actively pursuing investment attraction efforts that fit with both Maine communities and Maine's abundance of sustainably-harvested wood. Given the uncertainty that some of the above projects will be successful, DECD continues to pursue opportunities while also prioritizing deep engagement with industry leaders and communities. The overall goal is to ensure that new projects are supported by towns, existing companies, and balanced with the sustainable harvest of our working forest lands.

Attachment 1: Maine Wood Volume and Projection Study (2021 Update)

Attachment 2: The Wood Supply Chain

Attachment 3: Governor Mills Letter to U.S. EPA