

News for Family Forests

August 2018



Forest Management Co.
PROFESSIONAL FORESTERS

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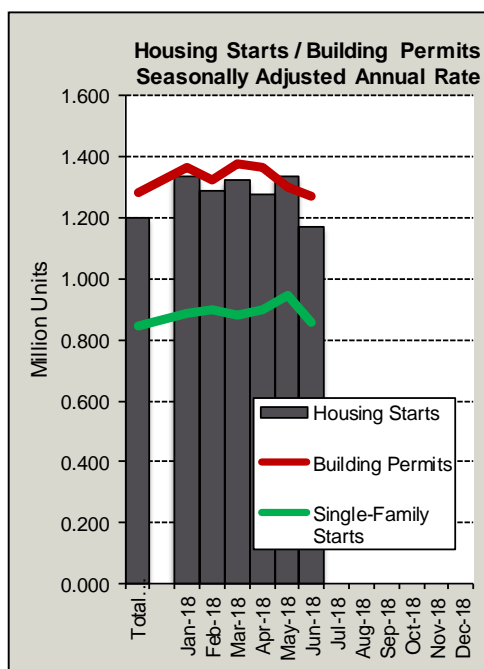
Welcome to the dog days of August. Log markets remain strong. It's another very dry summer and, as I mentioned last month, if you reforested in the last few years you'll want to survey your plantations this fall in order to determine if interplanting is necessary in 2019. Seedling inventories at nurseries are extremely tight, so the sooner the better for determining your seedling needs for next year.



If you want to plan a timber harvest or other forest operation, give me a call at (503) 654-2221 or email me at bkeller@woodlandmgmt.com. In addition to timber harvests, Woodland offers a variety of services—including reforestation, timber cruising, management plans, competition control in plantations, forestland valuations, and road maintenance.

- Brent

MARKET WATCH: HOUSING, LUMBER AND LOGS



HOUSING STARTS

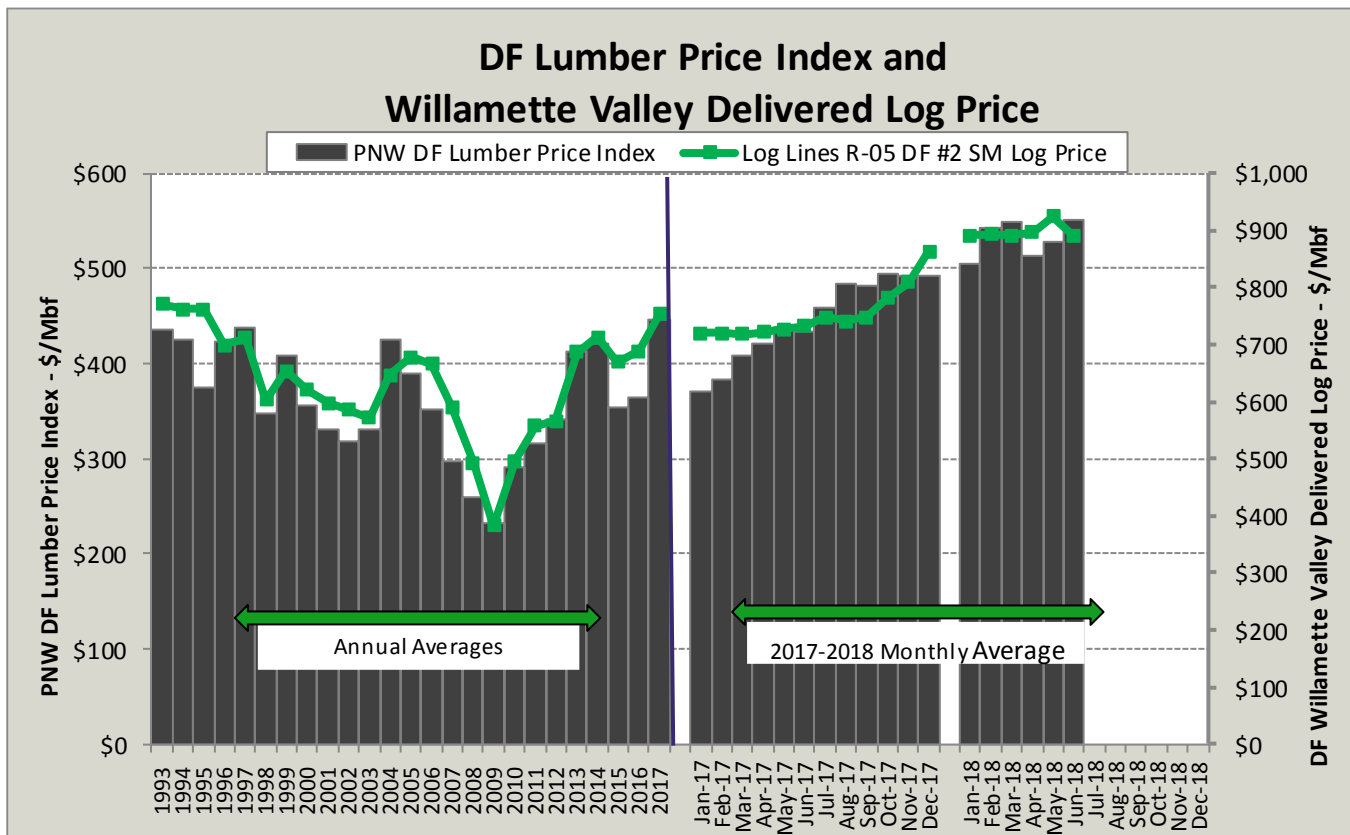
U.S. housing starts disappointed in June with an overall decrease of 12.3%. Single-family starts decreased 9.1% and multi-family starts fell 20.2%. Total starts are 4.2% below June 2017. Building permits fell 2.2%¹ in June – labor shortages and high lumber prices are cited as causes of the decline. (WSJ, 7/18/18)

	June 2018	May 2018	Monthly Difference	June 2017	Annual Difference
All Starts	1.173	1.337	-12.3%	1.225	-4.2%
Single-Family Starts	0.858	0.944	-9.1%	0.860	-0.2%
Building Permits	1.273	1.301	-2.2%	1.312	-3.0%
Single-Family Building Permits	0.850	0.843	0.8%	0.813	4.6%

Source: U.S. Census Bureau

¹ All housing statistics reported in seasonally adjusted annual rates (SAAR).

LUMBER & LOGS



DF log prices softened in June, but lumber prices increased again. June's upturn is welcome. Perhaps this market still has some legs. (Note that lumber and log prices are on different scales in the chart.)

- June DF #2S log prices, as reported by Log Lines, fell \$34 to \$890/Mbf, which is 3.7% below the prior month, but still 21.4% higher than June 2017, and 26.7% above the 5-year average.
- At \$552/Mbf, the DF lumber index price for June increased 4.6% over May 2018. It was also 27.5% higher than June 2017 and 39.1% above the 5-year average.

June 2018 Douglas-fir Prices:

	June 2018	May 2018	Change from Previous Month	June 2017	Change from Previous Year	5 Yr Annual Average	Current month compared to 5 Yr Annual Average
Logs	\$ 890	\$ 924	-3.7%	\$ 733	21.4%	\$ 702	26.7%
Lumber	\$ 552	\$ 528	4.6%	\$ 433	27.5%	\$ 397	39.1%

Sources: Log Lines Willamette Valley DF #2S monthly average price & WWPA Pacific NW Coast Douglas-Fir monthly

MARKET NEWS

LUMBER TRACK REPORT

Data from the Western Wood Products Association shows that overall U.S. lumber production and consumption had an increase in April, compared to March 2018 and April 2017. The U.S. West saw a slight decrease in production in April when compared to March 2018, but production is still up 14.6% over last year.

Overall U.S. mill utilization for the first four months of 2018 increased slightly over the same period of 2017. However, Coastal mills had a 2.2% decrease in utilization over the same period but were 8 percentage points higher than the 2017 monthly average rate. (WWPA, 6/13/18)

Lumber Production	Apr 2018	Mar 2018	Change from Previous Month	Apr2017	Change from Previous Year
U.S. Lumber Production	3.01	2.94	2.4%	2.70	11.8%
U.S. Lumber Consumption	4.17	4.03	3.5%	4.07	2.4%
Western U.S. Lumber Production	1.24	1.26	-1.6%	1.08	14.6%
Southern U.S. Production	1.64	1.55	5.7%	1.49	9.9%
Canadian Production	2.46	2.45	0.4%	2.40	2.3%

Mill Capacity	Jan - Apr 2018	2017 Average	Change from Previous Yr Avg	Jan - Apr 2017	Change from Previous Year
U.S. Production as a % of Capacity	85%	87%	-2.0%	84%	1.0%
Coast Production as a % of Capacity	90%	82%	8.0%	92%	-2.0%

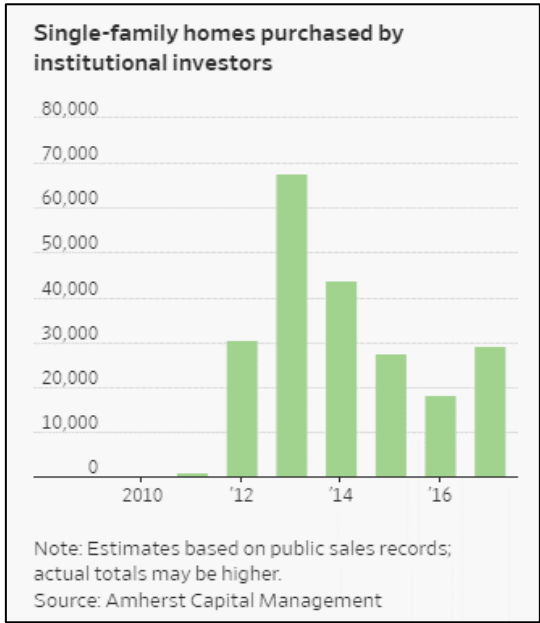
All volumes in Bbf; Source: WWPA Lumber Track and Western Lumber Facts

HOUSING: NO SALE!

According to a recent survey by Bankrate.com, 79% of U.S. homeowners say they have no plans to move within the next five years, and 62% say they never plan to move. The lack of available properties on the market feeds the cycle – people can't move if there is nothing for sale. Banknote.com suggests that a lack of available properties could lead to another housing bubble where buyers are over-leveraging in order to secure a home in a limited market. (Oregon Log Market Report, 5/15/18)

THE AMERICAN DREAM: RENTING?

Owning a home is becoming more difficult. Investors are looking to pick up the slack, betting that well-to-do families who might have bought a single-family home in another era are now looking to rent a house, especially if it includes access to a good school system.



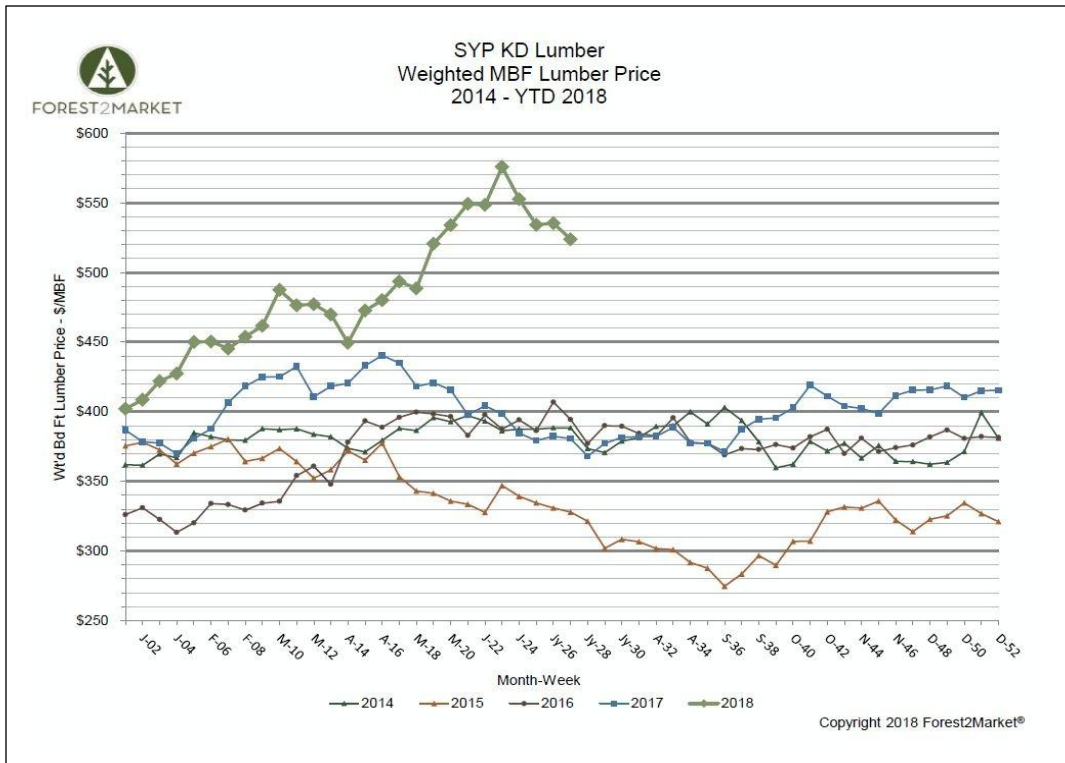
Investors who took advantage of the housing bust and bought homes for pennies on the dollar during the Great Recession are buying again—despite home prices in many markets being at all-time highs. Some are even building new homes for the rental market.

“The American dream no longer includes homeownership,” said Jordan Kavana, chief executive of Transcendent Investment Management LLC, a south Florida firm that has been a big acquirer of rental homes. “You will earn your equity in other ways, not your home.”

Financiers are making it easy by offering inexpensive funding earmarked for rental real estate. Some investors had planned to slow down, but financing has been too favorable to pass up, particularly when rents are rising. (Wall Street Journal, 7/9/18)

 **LUMBER BUYERS INCREASINGLY WARY AS PRICES SLIDE**

The Random Lengths North American Framing Lumber Composite dropped for a fifth straight week on July 13, by \$10/Mbf (1.85%) to \$532/Mbf. Still, prices are strong. In comparison to one year-ago, the July 13 composite price was up 29.44%. With recent price decreases, lumber buyers are becoming wary of further reductions and purchases are slowing to cover only immediate needs in some markets. While framing lumber sales picked up modestly after the 4th of July holiday, the majority of producers had to reduce prices to secure orders and often agreed to double-digit cuts. Random Lengths noted that contracts for



September and beyond were priced well below the current cash market. (Random Lengths, 7/16/18)

Forest2Market released the chart below, showing the sharp decline in the prices for Southern Yellow Pine (SYP) over the last several weeks. The SYP pricing is a large factor in the Random Lengths framing lumber composite discussed in the prior paragraph. (F2M Press Release, 7/9/18)

HOUSING AFFORDABILITY BLAMED FOR SLOWDOWN

Late July data point to a cooling in the housing market. Existing home sales have dropped for the last three consecutive months, new home purchases have slowed, and available inventory is growing. Affordability seems to be the largest factor for the slowdown, as buyers are getting sidelined by rising mortgage interest rates and home prices rising swifter than incomes. Here is what some of the experts are saying:

- “Home prices are plateauing,” said Ed Stansfield, chief property economist at Capital Economics Ltd. in London. That means “we’re now looking at a period in which prices move more or less sideways, or increase no more quickly than growth in incomes, over the next few years.”
- “The rate of home sales, new and existing, has probably peaked,” said Ian Shepherdson, chief economist at Pantheon Macroeconomics. “But it’s not going to roll over. It will gently decline.”
- “This could be the very beginning of a turning point,” said Robert Shiller, a Nobel Prize-winning economist who is famed for warning of the dot-com and housing bubbles, in an interview. Though, he stressed that he isn’t ready to make that call yet. (Bloomberg, 7/26/18)

ESA OVERHAUL PROPOSED

More than 2 dozen pieces of legislation have been introduced recently that would significantly overhaul, and possibly weaken, the Endangered Species Act (ESA). This is an unprecedented level of reaction to the current administration’s perceived receptiveness to deregulation. The Interior Department and the Commerce Department announced plans to overhaul the ESA in July and included a provision that could allow the economic cost of protecting plants or animals to be considered when determining whether they warrant protection.

Supporters claim new legislation will produce more appealing results for states, landowners and the plants and animals themselves. In support of the overhaul, Rep. Rob Bishop, Utah, and chairman of the House Committee on Natural Resources, said The ESA is “the most inept program we have in federal government” and that “if the law (ESA) was a major league baseball player, its batting average would be 0.1, or even less.” Rep. Roger Marshall, Kansas, said less than 2% of species protected under the act (ESA) have recovered.

Critics say the overhaul will dismember a law designed to protect threatened and imperiled species, and some are even calling it an “extinction package.” (KSL, 6/13/18, National Post, 7/23/18)

THOMAS MANESS 1955 - 2018

Thomas Maness, dean of the College of Forestry at Oregon State University since 2012, died July 12, 2018, in Corvallis following a 2 1/2-year battle with an undisclosed illness. He was 63. Under Maness’ leadership, OSU was ranked the second-best college of forestry in the world in 2017 by the Center for World University Rankings, behind only the Swedish University of Agricultural Sciences in Uppsala, Sweden. (Capital Press, 7/13/18)

IN SUPPORT OF FOREST SERVICE FIRE-FIGHTING POLICY

Vicki Christiansen, the interim chief of the U.S. Forest Service, wrote a poignant piece defending the fire policy of the USFS. It was published in the Oregonian. (7/2/18)

HOLD YOUR BREATH, IT'S FIRE SEASON

The Pacific Northwest has come out of a hot, dry spring into a hot, dry summer, which means significant wildfires are likely on the way. Last year, 664,824 acres were burned—nowhere near the record, but still very notable for reaching forests that tend to be considered more wet.

Through the first week of July 2018:

- About 141,000 acres have burned in Oregon.
- California reported more wildfire acreage had burned statewide so far than during the same period last year, approx. 196K acres by July 10th.
- At least eight wildfires were burning across Colorado and six in Utah

After a long-awaited end to the U.S. Forest Service's cycle of fire borrowing, Congress created an emergency fund for fire-fighting that kicks in when about \$1.5 billion of the country-wide budget is tapped out. They also appropriated money for the significantly larger wildfires that often exhaust resources more quickly, and these funds will be available this year, as needed. (Oregonian, 7/6/18, US News & San Jose Mercury News, 7/10/18)

WILDFIRE PARTICULATES LEAD TO UNHEALTHY AIR IN THE WEST

In the third week of July, southern Oregon was reported to have the worst air quality in the U.S. The areas of most concern that week were in Ashland, Klamath Falls and Grants Pass. Officials recommended wearing masks outdoors and urged sensitive populations to evacuate. This, because over 2,000 lightning strikes began over 100 new wildfires in Oregon's southern forests and grasslands. In the same week, Yosemite Valley in California announced the shutdown of a major highway due to smoke and nearby fires. (Oregonian, 7/23/18)

The red area shows where the worst days of particulate matter pollution (PM 2.5) are getting worse.

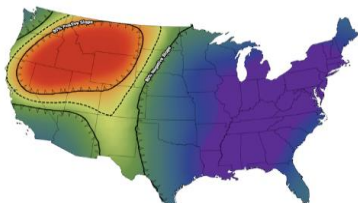
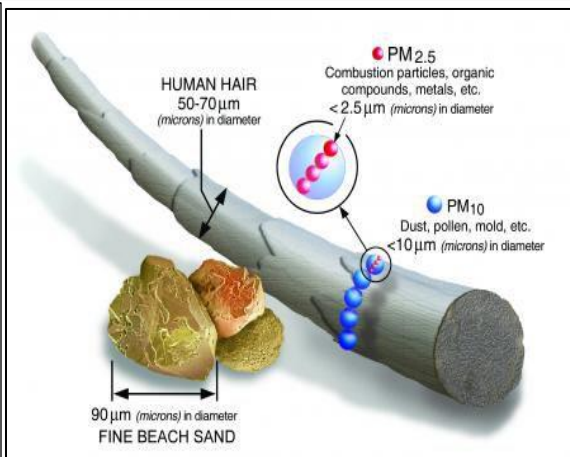


IMAGE: IMAGE ADAPTED FROM MCCLURE C.D. AND JAFFE D.A./PNAS



Fine particles of air pollution have been linked to heart and lung disease. In most of the U.S., these particles diminished since the mid-1980s. However, they seem to be increasing in the western U.S. The culprit, according to

atmospheric scientists, is expanding frequency and size of wildfires, which are burning considerably more land than they were three decades ago.

Researchers at the University of Washington have determined that in 2017, the Northwest region claimed the worst days of pollution in the country.

Dan Jaffe, University of Washington Bothell professor of Atmospheric Sciences participated in a study that looked at the 7 worst days of pollution in regions nationwide. They studied the level of PM 2.5 (for particulate matter less than 2.5 microns across) in the air on those days.

"The take away from this, those seven days, the seven worst days each are getting worse and they're getting worse due to wildfire smoke," said Jaffe. (Mashable and KOMO, 7/16/18)

CLIMATE CHANGE AND FORESTRY, IN OREGON

Oregon's legislators are working on a carbon bill, but they are stymied by the facts. The Oregon Legislature has tasked ODF to undertake a three-phase study on the carbon flows in Oregon's forests and wood products industry and develop potential strategies to increase carbon storage. The agency, advised by a stakeholders' group, is redoing the forest carbon inventory that the Global Warming Commission just finished—reportedly because some legislators didn't like its methodology or contributing scientists.

A coalition of conservation groups, meanwhile, are urging Gov. Kate Brown's carbon policy advisor to implement measures to protect older, carbon-rich forests, curb clearcutting and lengthen harvest rotations on private "tree plantations," converting them back to "climate resilient forests." They want the climate change bill to put revised forest practices at the center of the policy.

According to USFS data, Oregon's forests sequester 23-63 million tons of CO2 annually, equivalent to all of the annual emissions from Oregon's transportation, utility and industrial sectors. While that might seem like good news, it's an awkward fact for backers of the Clean Energy Jobs bill, as they don't want to see everyone declare victory and go home. (Oregonian, 7/14/18)

FOREST SERVICE SEEKS \$ IN SALVAGE SALE

The Forest Service is planning to sell about 71 MMbf from just 2.5% of the Chetco Bar fire's overall footprint and plans to begin as soon as possible. Based on the 30,000 board-feet of lumber requirement for the average house, these sales could potentially produce enough wood for more than 2,300 homes. The money from the sales is much needed and will help pay for other post-fire projects.

The Service seems to be trying to avoid mistakes made at their last salvage attempt after the 2002 Biscuit Fire that burned in much of the same area as the Chetco Bar fire had a much larger footprint and came with delays that rendered most of the damaged timber unsuitable for milling. (Mail Tribune, 6/28/18)

AUTONOMOUS LOG TRUCKING

Einride's T-Log is a powerful autonomous electric truck built for Sweden's billion-dollar logging industry. It features a design with a platform for holding the logs, a slim front that's all autonomous, and a cornucopia of sensors such as radars, lidars, cameras, and intelligent routing software that helps optimize its performance. It is powered by Nvidia's Drive platform, enabling it to deliver at faster times, using lesser energy and conserving battery life. The 300kWh battery sitting within the T-Log can power the truck for 120 miles on a single charge.



Without need of a human driver, the truck proves to be highly beneficial. The risk of human driving error is eliminated and the truck can operate 24×7 without taking mandated sleep breaks (as humans would), while the absence of a waged driver also helps cut down on expenses.

It is unclear whether these will be available in the U.S. or what the cost to purchase might be. (Yanko Design, 7/16/18)

CLT: ADOPTION CHALLENGES

The deal to build a record-setting 12-story wooden Portland tower that was expected to be the tallest in North America is off. The star component of the building was planned to be cross-laminated timber (CLT). Willamette Week reports the project will not proceed for the following possible reasons:

- The cost was too high, estimated at over \$651/sq. foot
- Sufficient funding proved difficult to secure.
- In March, the construction of a cross-laminated timber building at OSU was temporarily halted after CLT materials failed, which was blamed on a problem with the manufacturing process.
- The project developer blamed "market challenges" for the decision not to move forward with the project.

In addition to the CLT challenges with the planned building mentioned above, CLT is receiving organized opposition from America's Cement Manufacturers organization (ACM). The ACM is rallying to block the approval of CLT for use in tall wooden buildings by the International Code Council. They claim CLT use is lacking rigorous scientific or in-the-field fire and structural testing. The ICC is scheduled to vote on the approval of CLT for tall buildings in November 2018. (Willamette Week, 7/16/18 & Portland Cement Association, 7/18/18)

To help with the adoption of CLT into more municipal building codes, OSU was recently awarded a \$489,793 U.S. Department of Agriculture grant for research on the durability of cross-laminated timber. The grant will fund a project to study the effects of moisture accumulation in mass timber buildings on the structural building components and connections. The results of this research will lead to engineering

design guidelines that will account for the effects of moisture intrusion on panel and connection properties for cross-laminated timber structural systems. (KTVZ, 7/12/18)

CHIP MARKET UPDATE

Georgia Pacific's announcement that it will close its Camas Washington paper mill, and the scheduled down time at its Wauna mill to install a whole log chipper means there are extra chips in the Columbia River system. Meanwhile, Coastal BC pulp mills are short on chips, and are barging chips from the Southern Oregon coast, Port Angeles and Eureka. Add to that increasing lumber production which will bring additional residual, and the longer-term chip supply picture is murkier than ever. (Oregon Log Market Report, 5/15/18)

GEORGIA PACIFIC THINKS OUT-OF-THE-BOX

Sixty years ago, Georgia-Pacific (GP) opened its first containerboard plant in Toledo, Oregon.

Based on a radical idea for its time, rather than burning the waste wood from sawmilling, it was ground into wood chips and used to produce containerboard, the heavy brown paper that goes into making cardboard boxes. Today, wood chips are still the main source of fiber for GP's Toledo mill, along with big bales of used cardboard known as OCC, for old corrugated containers. The raw materials come in by truck and rail from all over the West, with a daily average of 2,000 tons of wood chips and 1,300 tons of OCC.

Georgia-Pacific has recently patented a new processing technology, dubbed Juno, that the company claims can separate wood fiber from plastics, metals and other materials in the waste stream and sanitize it for use as pulp. "The magic of Juno is the separation of wood fiber from materials that, up until now, you could not get wood fiber out of — especially if it was contaminated with food," said company spokesman C.J. Drake. Container-board made with fiber reclaimed using the Juno process "looks and feels just like what we make from wood chips and OCC," Drake said. GP hopes this new technology will solve two problems: provide a low-cost supply of fiber, and reduce waste entering our landfills. (Corvallis Gazette-Times, 7/6/18)

NW FARM CREDIT FORECAST

Executive Summary

Drivers for the forest products industry include robust lumber and log prices affected by supply constraints and solid demand.

- PNW log prices remain elevated as supply remains tight across the region.
- Labor and transportation shortages continue to constrain supply.
- Housing demand remains strong.
- Lumber prices have achieved new record levels.

12-Month Profitability Outlook



To the side, we show the summary from the June 30, 2018 NW Farm Credit Services quarterly wood products forecast.