THE U.S. WOOD PRODUCTS INDUSTRY: FACILITATING THE POST COVID-19 RECOVERY

HEARING

BEFORE THE

SUBCOMMITTEE ON CONSERVATION AND FORESTRY OF THE

COMMITTEE ON AGRICULTURE HOUSE OF REPRESENTATIVES

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THE U.S. WOOD PRODUCTS INDUSTRY: FACILITATING THE POST COVID-19 RECOVERY

WEDNESDAY, JULY 21, 2021

House of Representatives, SUBCOMMITTEE ON CONSERVATION AND FORESTRY, COMMITTEE ON AGRICULTURE, Washington, D.C.

The Subcommittee met, pursuant to call, at 10:02 a.m., in Room 1300, Longworth House Office Building, Hon. Abigail Davis Spanberger [Chair of the Subcommittee] presiding.

Members present: Spanberger, Pingree, Kuster, O'Halleran, Panetta, Schrier, LaMalfa, DesJarlais, Kelly, Johnson, Miller, Moore,

Thompson (*ex officio*), and Baird.

Staff present: Grayson Haynes, Ross Hettervig, Martin Prescott III, Félix Muñiz, Jr., John Busovsky, Patricia Straughn, Erin Wilson, and Dana Sandman.

OPENING STATEMENT OF HON. ABIGAIL DAVIS SPANBERGER, A REPRESENTATIVE IN CONGRESS FROM VIRGINIA

The CHAIR. This hearing of the Subcommittee of Conservation and Forestry entitled, The U.S. Wood Products Industry: Facilitating the Post COVID-19 Recovery, will come to order.

Welcome, and thank you for joining today's hearing. After brief remarks, Members will receive testimony from our witnesses today and then the hearing will be open to questions.

Members will be recognized in order of seniority, alternating between Majority and Minority Members and in order of arrival for those Members who have joined us after the hearing was called to

When you are recognized, you will be asked to unmute your microphone and you will have 5 minutes to ask your questions or make a comment. If you are not speaking, I ask that you remain muted in order to minimize background noise.

In order to get to as many questions as possible today, the timer

will stay consistently visible on your screen.

Good morning. Thank you for being here today for today's hearing, "The U.S. Wood Products Industry: Facilitating the Post COVID-19 Recovery."

The U.S. wood products industry directly employs about one million people and contributes more than \$5 billion in state and local taxes. In my home of Virginia, we have 16 million acres of forested land and forest-related businesses contribute \$156 million to our state's economy each year and it supports more than 27,000 jobs.

And as we join today to talk about the opportunities within our wood products industry and our forest lands, I must acknowledge the raging forest fires bringing devastation to much of the western United States, including in Mr. LaMalfa's district and the districts represented by so many of our colleagues on this Subcommittee and full Committee.

While our next hearing will dive directly into issues related to forest fires, focusing on wood products industry with our attention on the infrastructure and resource that is America's forestland it

is an important element of that larger future conversation.

Like so many industries, the wood products industry experienced severe and uneven impacts as a result of COVID-19, and while some sectors of the industry maintained or even increased economic activity, many sectors have been negatively impacted through market pressures, supply chain interruptions, labor shortages, and transportation challenges, among other disruptions.

These effects have rippled through the supply chain, in many cases adversely affecting landowners, harvesting and holding businesses, processors, manufacturers, retailers, and consumers.

Independent reporting suggest economic losses for various sectors within the wood products industry have ranged upwards of 40 percent. American consumers also saw the pandemic's impact on the industry firsthand.

For many consumers, the pulp and paper sector was top-of-mind during widespread shortages of tissue products, while the lumber sector reported record high prices due to manufacturing and processing constraints.

In the wake of the pandemic, Congress provided relief to small businesses through various legislative packages, the Paycheck Protection Program authorized by the CARES Act and later extended in subsequent legislation, provided short-term low interest loans to small businesses for payroll and operating costs.

More recently, Congress authorized direct relief to the industry through the Consolidated Appropriations Act of 2021. This bill provides up to \$200 million in relief to timber harvesting and hauling businesses who have experienced a loss of at least ten percent due

to the pandemic.

Both the Ranking Member and I supported this effort and wrote the Biden Administration to request that the relief be released and questioning why months after the fund was created the support still hadn't been released. I led a similar effort with the Virginia delegation.

However, yesterday I was thrilled to see that the USDA finally announced that applications for these funds will go live tomorrow,

July 22nd.

I would like to thank Secretary Vilsack and those at USDA for their work in getting these funds to the timber haulers and harvesters impacted by the pandemic, and our Subcommittee stands ready to support USDA as these funds are disbursed to make sure that those who need the relief are able to access it.

And as we turn the corner from the worst of the pandemic, Congress has an important opportunity before us. All across Capitol

Hill and, certainly, in my district, we are talking about the physical infrastructure needs of our country, and as negotiations continue towards a potential bipartisan physical infrastructure bill, our opportunity is to ensure that we are putting resiliency, the next generation of climate-smart infrastructure, and, importantly, our American forestry sector at the forefront of that conversation.

Our forests as well as the products they support are critical American infrastructure. They are natural infrastructure. They are green infrastructure.

They sequester carbon while growing our economy, and the innovative wood products that come from this industry present tremendous opportunity.

The use of nanocellulose-infused concrete and cross-laminated timber as examples present tremendous benefits and opportunities.

They can reduce building weight, equal or exceed the strength of traditional concrete or steel beams, all while making use of an American domestic asset, and all while reducing the embodied carbon footprint of our buildings, all while expanding opportunities for rural communities and our efforts to build a more resilient supply chain here in the United States.

I am excited to hear from our witnesses about how Congress can support infrastructure policy that protects our forestlands, expands reforestation efforts, provides incentives for the use of these innovative technologies and leads us into the future.

I am also curious to hear from our witnesses today about their experiences and challenges as a result of COVID-19, whether the short-term relief has been helpful, how temporary relief could have been better designed to weather the economic downturns, and while the worst of COVID-19 is, hopefully, behind us, being prepared for the possibility of future disruptions and future challenges is always a good effort to undertake.

I hope we can explore more durable policy options to ensure the industry can thrive well into the future.

I look forward to hearing from our witnesses today [The prepared statement of Ms. Spanberger follows:]

Prepared Statement of Hon. Abigail Davis Spanberger, a Representative in Congress from Virginia

Good morning! Welcome to today's hearing—"The U.S. Wood Products Industry: Facilitating the Post COVID–19 Recovery." The U.S. wood products industry directly employs about one million people and contributes more than \$5 billion in state and local taxes. In my home of Virginia, we have 16 million acres of forested land, and forest-related businesses contribute \$156 million to our state's economy each year and support more than 27,000 jobs.

Like many industries, the wood products industry experienced severe and uneven impacts as a result of COVID-19. While some sectors of the industry maintained or even increased economic activity, many sectors have been negatively impacted through market pressures, supply chain interruptions, labor shortages, and transportation challenges—among other disruptions. These effects have rippled through the supply chain, in many cases adversely affecting landowners, harvesting and hauling businesses, processors, manufacturers, retailers, and consumers.

Independent reporting suggest economic losses for various sectors within the wood products industry have ranged up to 40 percent. American consumers also saw the pandemic's impacts on the industry firsthand. For many consumers, the pulp and paper sector was top-of-mind during the widespread shortage of tissue products, while the lumber sector reported record high prices due to manufacturing and processing constraints.

In the wake of the pandemic, Congress provided relief to small businesses through various legislative packages. The Paycheck Protection Program authorized by the CARES Act and later extended in subsequent legislation, provided short-term low-interest loans to small businesses for payroll and operating costs. More recently, Congress authorized direct relief to the industry through the Consolidated Appropriation Act of 2021. The bill provides up to \$200 million in relief to timber harvesting and hauling businesses who experienced a loss of at least 10% due to the pandemic. Both the Ranking Member and I supported this effort and have written to the Biden Administration to request that relief be made available as soon as possible.

Yesterday, I was thrilled to see USDA announce that applications for these funds would go live July 22nd. I would like to thank Secretary Vilsack and all those at USDA for their work in getting these funds to those timber haulers and harvesters impacted by the pandemic. Our Subcommittee stands ready to support USDA as these funds are disbursed to make sure all those who need relief are able to access it

As we turn the corner from the worst of the pandemic, Congress has an important opportunity before us, as we consider options for more resilient and climate-smart infrastructure. Our forests—as well as the wood products they support—are critical green infrastructure that help sequester carbon while growing our economy. I am excited to hear from our witnesses about how Congress can support infrastructure policy that protects our forestland, expands reforestation efforts, provides incentives for the use of innovative wood products in construction like nanocellulose-infused concrete and cross-laminated timber that reduce the embodied carbon footprint of our buildings—all while expanding opportunities for rural communities and building more resilient supply chains in the industry.

I am also curious to hear from our witnesses today on the challenges they have experienced as a result of COVID-19, whether short-term relief has been helpful, and how temporary relief could be better designed to weather economic downturns. Though the worst of COVID-19 is hopefully behind us, we must be prepared for the possibility of future disruptions. I also hope we can explore more durable policy options to ensure the industry can thrive well into the future.

I look forward to hearing from our witnesses today. With that I would like to recognize Ranking Member LaMalfa for any opening remarks he may have. Thank you.

The CHAIR. And with that, I would like to recognize Ranking Member LaMalfa for any opening remarks he may have.

OPENING STATEMENT OF HON. DOUG LAMALFA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

Mr. LAMALFA. Thank you, Madam Chair. I appreciate your convening this hearing today and also your work in partnership. I appreciate our ability to work on these issues together in a bipartisan way, in a productive way. So thank you for that.

So good morning. Indeed, from furniture to baseball bats and paper to lumber, our forests provide countless products and essential feedstocks for many American industries.

Collectively, forest-related businesses support over one million direct jobs and 2.9 million indirect jobs nationwide, generating approximately \$107 billion in GDP.

These industries are economic engines that provide rural jobs and revenues to forest counties while also promoting important forest health.

Active forest management encourages healthy forests and will decrease the threat and severity of wildfire by restoring forest stands to their natural conditions.

In 1987, our Federal forests saw more than 11 billion board feet harvested. Last year, only 3.2 billion board feet was harvested, almost ¼ of what had been normal. This has led to more overstocking in our forests.

The COVID pandemic did create immeasurable challenges for families and individuals, small businesses, and the economy nationwide.

In countless ways to varying degrees, these difficulties were felt in forest communities and throughout the various industries within the forest products supply chain.

Over the past year, there has been considerable attention on the lumber and housing industries as lumber prices, indeed, have skyrocketed due to a dramatic and unexpected spike in demand.

At its peak, lumber prices exceeded \$1,600 per 1,000 board feet, an increase of three to four times the historical prices. While to-day's lumber prices are still somewhat elevated, it is important to note that they have moderated somewhat recently as supply-and-demand have slowly began to realign.

However, as this normalization continues to occur, COVID-19 has highlighted some of the issues that exist in the forest products and lumber supply chains very importantly, such as a lack of saw-mill capacity.

We have seen so many sawmills drop out of the industry in the last 20 to 30 years, as well as ongoing workforce and transportation needs.

As we have today's discussion on issues impacting forest products, we must also address the elephant in the room. I am not sure it is really an elephant in the room these days because it is so obvious for everybody. We will invite donkeys, too.

The massive wildfires that are burning across California and in the West and, really, it is no joking matter. It is tens of thousands of new acres going up each day.

I believe the haze we have over Washington, D.C., right now, is rooted in fires coming from California and Oregon, and sending that smoke across the whole continent.

I believe we must be also talking about timber harvesting and the need for more active management in our National Forests, which all goes hand-in-hand with the issue of wildfire and safety, as well as the supply chain we are talking about mostly here today.

The wildfire crisis continues to wreak havoc on the West. We should focus on practical solutions that will address wildfire prevention, the declining health of our National Forests, the overload of inventory in the forests.

Just tour California for a little while and you will see the urgent needs of millions of Americans who live in these areas.

The West is still reeling from the 2020 fire year, which burned over 10 million acres of forest, and it appears that 2021 could be an even more difficult year as we have already surpassed that number of fires and acres at the same point in time last year, already 1 million acres burned, and it looks like a very, very long season in front of us. God help us that maybe it doesn't have to

We hope to have the Chief of the Forest Service and the Chief of NRCS testify before the Subcommittee sometime this year.

We also need hearings on the very thoughtful forestry bills that our Members have put forward this Congress, which are designed to empower the Forest Service to better manage our forests and reduce wildfire. At its inception, the fundamental goal of our National Forest System was active management of our National Forests to provide the nation with a reliable source of timber and forest products, indeed, the multiple uses that they used to advertise.

The Forest Service must return to this model. Our job in Congress is to provide them the authorities and resources to proactively address this crisis while also being able to fulfill all the

other statutory mandates we have placed upon the agency.

The forest products industry is an important partner with both the Forest Service and our rural communities. With the right tools and policies in place, we can encourage more effective forest management, healthy rural economies, and a vibrant forest products industry.

I want to thank our witnesses for being with us today. We look forward to their testimonies, expertise, and your recommendations on how we can fix these important issues.

I yield back, Madam Chair. Thank you.

The CHAIR. I would like to recognize Ranking Member Thompson for his opening comments.

OPENING STATEMENT OF HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA

Mr. Thompson. Chair Spanberger, Ranking Member LaMalfa, thank you both for convening today's very timely and incredibly im-

portant hearing.

The forest products industry is critically important to many rural communities, supporting both economic and forest health. I look forward to hearing from our witnesses today to discuss how this critical industry has been impacted over the years and how we can support it.

As part of this discussion, it is essential that we also consider the ongoing challenges before the Forest Service, the great need for dramatically increased forest management and the devastating

wildfires that continue to burn the West.

With over 80 major fires burning in the West, more acres and more fires have already burned this year than in the same time last year.

The Bootleg fire raging in Oregon has now become the third largest wildfire in the state's history and air quality is being affected

as far away as New York City.

There are urgent issues that must be addressed by the Forest Service and this Congress, we need more active management, and the Forest Service needs our support to do that.

I very much appreciate today's discussion and the recommendations from our witnesses to support the forest products supply chain.

And thank you once again, Madam Chair and Mr. Ranking Member, and with that I yield back.

The CHAIR. The chair would request that Members submit their opening statements for the record so that witnesses may begin their testimony to ensure that there is ample time for questions.

I am pleased to welcome a distinguished panel of witnesses at our hearing today. Our witnesses bring to our hearing a wide range of experience and expertise, and I thank you all for joining us. Our first witness today is Henry Schienebeck. Mr. Schienebeck was a self-employed logger and trucker for 32 years prior to being named Executive Director of the Great Lakes Timber Professionals Association in 2008. He leads the organization in its mission of, quote, "enhancing a multiple use forest for future generations."

Mr. Schienebeck also serves on the Wisconsin Council on Forestry and Sustainable Resource Institute Board of Directors and the American Loggers Council Legislative Committee in addition to a number of other forest industry-related committees and boards.

Our next witness today is Caroline Dauzat. Mrs. Dauzat is a fourth-generation co-owner at Rex Lumber, a high-volume southern yellow pine sawmill in Graceville, Florida. Rex Lumber has been manufacturing forest products since 1926 and specializes in southern yellow pine lumber.

The company has four mills—two in Florida, one in Mississippi and one in Alabama. Mrs. Dauzat also serves as President of the Apalachee Pole Company, Incorporated. She received a Master's of Business Administration from Loyola University and a Bachelor of Arts from the University of Florida.

Our third witness today is Bill Imbergamo. Mr. Imbergamo is the Executive Director of the Federal Forest Resource Coalition, a position he has held since 2011. He has 30 years of natural resource experience in Washington as an association Executive Policy Analyst and senior Congressional staff member.

Prior to his current position, he served as professional staff on the House Agriculture Committee, and then a senior professional staff on the Senate Agriculture, Nutrition, and Forestry Committee.

Mr. Imbergamo holds a Bachelors degree from the State University of New York at Plattsburgh.

Our fourth and final witness is Iain Macdonald. Mr. Macdonald is the Director of TallWood Design Institute, a unique research and education collaboration between the Oregon State University Colleges of Forestry and Engineering and the University of Oregon College of Design.

The TallWood Design Institute conducts applied research and provides outreach and education to professionals in the architecture, engineering, construction, and wood products manufacturing sectors

Mr. Macdonald has been in his current role since 2016 and has worked in roles supporting innovation in the wood products industry for more than 20 years.

Welcome to our witnesses today. We will now proceed with hearing your testimony. You will each have 5 minutes. The timer should be visible on your screen and we will count down to zero, at which point your time has expired.

I apologize if I have pronounced any of your names incorrectly and I welcome you to correct me as part of your opening statement. We will begin with Mr. Schienebeck. Please begin when you are ready.

STATEMENT OF HENRY SCHIENEBECK, CHAIR, GOVERNMENTAL RELATIONS COMMITTEE, AMERICAN LOGGERS COUNCIL, GILBERT, MN

Mr. Schienebeck. Good morning, Chair Spanberger, Ranking Member LaMalfa, and distinguished Committee and Subcommittee Members.

My name is Henry Schienebeck and I appear before you today representing the American Loggers Council based in Gilbert, Minnesota, as Chair of the Government Relations Committee.

The ALC is a national trade organization providing exclusive representation for timber harvesting and hauling businesses across the United States.

I report today that the impact of COVID-19 is severe enough that for the first time in my lifelong history as a logger, timber harvesters and haulers found it necessary to ask the Federal Government for financial assistance.

Except for toilet paper, tissue paper, face masks, paper gown products, the forest products manufacturing including sawmills, building material manufacturers, and printing paper producers drastically curtailed or stopped production at the beginning of the pandemic.

While we are thankful the Federal Government determined timber harvesting and hauling to be essential, it is understandable that with stay-at-home orders, product demand was unpredictable, which had an immediate negative impact on the industry's ability to purchase raw material produced by timber harvesters.

As the pandemic evolved, the appetite for homeowners to implement do-it-yourself projects increased sharply and demand for building materials skyrocketed.

Contrary to what many believe, timber harvesters and haulers have not benefited from the record high finished product prices.

This is especially true for Michigan, Minnesota, Wisconsin, where wood consumers have closed their doors because of COVID, causing an overabundance of raw material. It became a supply-and-demand market on both the raw material end and finished product side of manufacturing.

It is important to understand that, like farmers, these small family-owned and -operated logging and timber hauling businesses are capital intensive and generate income only when product is delivered to market.

Reduced prices for raw material, coupled with increased operational costs, particularly fuel, has resulted in a ten to 40 percent loss in revenue for many companies compared to the same 2019 time-frame.

Proof of an approximately \$1.8 billion loss in revenue is supported with multiple studies and surveys which are included in the full testimony. The ALC survey showed 61 percent of loggers received financial help from the Paycheck Protection Plan.

Timber harvesters and haulers are very appreciative of having PPP funds available and their lenders are as well. Without additional COVID relief, the generational businesses will continue struggling financially to survive. If they fail, the nation will be hard pressed to find individuals willing to make the investments required to keep wood fiber sup-

plied to manufacturers of products we all use daily.

The Consolidated Appropriations Act allows the Department of Agriculture to provide up to \$200 million in assistance for timber harvesting and hauling businesses. Through no fault of their own, the Farm Service Agency has no experience in dealing with timber harvesters and haulers.

USDA and the Forest Service and FSA worked diligently to make these funds available, which happened yesterday, as was pointed

out, and we greatly appreciate their efforts.

In addition to clean air, healthy forests provide clean water, wildlife habitat, and generate billions of dollars worth of well-paying

forest industry jobs in rural America.

Healthy forests and healthy forest industry go hand-in-hand. One cannot effectively exist without the other. Post pandemic, economic recovery is challenged logistically by limited transportation capacity.

ALC continues advocating for safer, more efficient transportation with the introduction of H.R. 2213, the Safe Routes Act. This legislation will allow states to authorize truck weights on the Federal

interstate equal to state-approved local road weight limits.

The timber industry grows and harvests trees just like other agricultural commodities. Recognizing the timber industry as agri-

culture would provide silviculture parity with agriculture.

To maintain and improve America's forests for maximum social benefit, including climate change, sequestration of carbon, supportive of rural economies and recreation, sustainable forest management must continue to improve.

Forest management is possible only with a secure professional logging workforce. In addition, recognizing new technologies like laminated and cross-laminated timber and biofuels industry will promote investment in facilities to use wood and produce new

value-added products.

These recommendations will have minimal fiscal impact and are simply policy and legislative changes to support climate change initiatives, reduce fossil fuel consumption, improve forest health, and contribute significantly to post COVID-19 wood products industry recovery.

That will end my testimony.

[The prepared statement of Mr. Schienebeck follows:]

PREPARED STATEMENT OF HENRY SCHIENEBECK, CHAIR, GOVERNMENTAL RELATIONS COMMITTEE, AMERICAN LOGGERS COUNCIL, GILBERT, MN

Chair Spanberger, Ranking Member LaMalfa, and distinguished Members of the Subcommittee on Conservation and Forestry, my name is Henry Schienebeck. I am the Governmental Relations Committee Chair for the American Loggers Council, the Executive Director for the Great Lakes Timber Professionals Association (GLTPA) representing Michigan and Wisconsin, and a former self-employed logger who has worked in forest industry for the past 47 years. I appear before you today representing the American Loggers Council (ALC). The ALC is the only national trade organization providing exclusive representation for timber harvesting and timber hauling businesses across the United States of America.

I report to you the impact of COVID-19 is severe enough that for the first time in my life-long career as a logger, timber harvesters and haulers have found it necessary to ask the Federal Government for financial assistance. Except for toilet

paper, tissue paper, face masks, and paper gowns, forest products manufacturers including sawmills, building material manufacturers, and printing paper producers, drastically curtailed or stopped production altogether when COVID-19 turned into a pandemic. While we are thankful the Department of Homeland Security determined timber harvesting and hauling as essential, it is understandable that with stay-at-home orders, product demand was unpredictable which had an immediate negative impact on industries ability to purchase raw material from timber har-

Minnesota and Wisconsin were impacted further with the announcement that two of the region's largest consumers of roundwood pulp would close their doors due to the impact of COVID 19. (Press release attached). The announcement to close the Wisconsin Rapids, Wisconsin and Duluth, Minnesota paper mills owned by Verso, came to GLTPA's office on June 9th, 2020, at 8:45 a.m. By 9:15 a.m. the same day, all shipmonts of wood to those mills owned by Verso, the same day, and the same day, a all shipments of wood to these mills were completely halted. In fact, some producers were told that if their trucks were more than an hour away, they would be turned

around and sent back with their cargo.

The regions timber harvesters and truckers were shocked and in disbelief that something like this happened. The Wisconsin Rapids mill alone, which employed between 800 and 900 workers, consumed approximately twenty five percent (25%) of the areas roundwood pulp. Ultimately these closures, coupled with the curtailment of lumber and building material production, created an oversupply of raw material. The imbalance of supply-and-demand resulted in reductions for the delivered price and the slashing of quotas for raw material added to the harvesters and haulers entered a state of panic. Timber harvesters and haulers are paid by production and only when raw material is delivered to the mill do they receive compensation. They must produce and deliver wood volume to generate income.

Stimulated by the pandemic, the sale of toilet paper and other household paper

product purchases escalated to the point shortages occurred and purchases were limited to one product per customer per visit. Along with the paper shortage the appetite for homeowners to implement do-it-yourself projects increased sharply and demand for building material skyrocketed along with prices for this material.

Contrary to what many believe, timber harvesters and haulers have **not** benefitted from the record high finished product prices. This is especially true in Michigan, Wisconsin, and Minnesota where wood consumers have closed their doors be-cause of COVID. It is important to understand that, like farmers and ranchers, these small, family owned, and operated logging and timber hauling businesses are capital intensive and generate a very modest 1% to 3% profit on an annual basis.

It is not unusual for a two- or three-person timber harvesting operation to have \$3.5 million worth of equipment on a bank loan. This does not include the daily operating capital needed for fuel, insurance, parts, and other consumables. Without COVID relief for these generational businesses to survive, the nation will be hard pressed to find individuals willing to make the investments required to supply wood

fiber to manufacturers of products we all use daily.

Reduced prices for raw material coupled with increased operational costs, particularly fuel, has resulted in a 10% to 40% loss in revenue for many companies comarry fuel, has resulted in a 10% to 40% loss in revenue for many companies compared to the same 2019 time-frame. Proof of this loss is supported in two ways. The American Loggers Council began an annual logging business survey on November 1, 2020 and followed up with an additional survey on January 15, 2021. The 2021 survey included general questions about how the COVID-19 pandemic impacted operations. Detailed answers from the questions are included as Exhibit A in this tes-

In general, the survey results show sixty nine percent (69%) of logging businesses surveyed reported the pandemic had either a somewhat or very negative impact on their businesses. Sixty one percent (61%) reported getting some relief from a Federal relief program with the majority of those who participated stating relief funds came through the Paycheck Protection Plan (PPP). Twenty six percent (26%) of the businesses did not participate in any Federal relief fund program as of December 31, 2020. Ninety-five percent (95%) of the businesses surveyed supported efforts to secure additional funding for timber harvesting and timber hauling businesses. Also, please know that timber harvesters and haulers are very appreciative of having PPP funds available and we are quite certain their lenders are as well.

In addition, the ALC contracted with Forest2Market to conduct a study on the actual losses incurred by the industry due to the COVID-19 pandemic. The study, attached as Exhibit B shows a loss of approximately \$1.8 Billion to the industry be-

cause of the pandemic related loss of markets for raw material.

On December 27, 2020, the Consolidated Appropriations Act became law and included language allowing the U.S. Department of Agriculture to provide up to \$200 million to assist those timber harvesting and timber hauling businesses that have lost 10% or more of their revenue from January 1, 2020, through December 1, 2020, compared to the same period in 2019. The lack of parity between agriculture and silviculture is the main reason for the delay to access of the \$200 million for timber harvesters and haulers. Through no fault of their own the Farm Service Administration (FSA) has no experience in dealing with timber harvesters and haulers however, USDA, USFS and FSA are working diligently to make these funds available, and we greatly appreciate their efforts. When available, these monies will aid timber harvesters and haulers in recovering from the pandemic induced losses and keep them from losing their businesses.

The Role of Forest Management in Addressing Environmental Concerns

Healthy forests are vital to addressing climate change. Healthy forests are those which have been sustainably managed for multiple use, and are growing live, healthy trees of all ages which sequester carbon. Dead and dying trees, caused by insect and disease infestation, and catastrophic fire, contribute to carbon emissions. Sustainably managed forests are a major contributor to carbon sequestration and climate change mitigation which is why the U.S. and much of the world have joined the Trillion Tree Initiative. In addition to clean air, healthy forests provide clean water, wildlife habitat and generate billions of dollars providing well-paying forest industry jobs and outdoor recreation in rural America.

The most effective way to maintain healthy forests is through forest management. This is proactively accomplished with trained logging professionals and land managers guided by fully vetted management plans. Timber harvesting provides the raw material to produce forest products such as paper, boards, biomass-based fuels, and other products used every day by all people. Forest products from harvested and processed timber "store" captured carbon well beyond the life of the trees that absorbed it. Healthy forests and a healthy forest industry go hand-in-hand. One cannot effectively exist without the other.

Forest management is a renewable, sustainable cycle of growing trees, harvesting trees, converting them into products and includes both natural regeneration and reforestation by planting. As seen with global imaging the United States now has more forested land than it did 100 years ago, and more trees are grown annually than are harvested. Of note, is that tree harvesting, and removal occurs on less than two percent (2%) of forest land annually as compared to Three percent (3%) of forest land disturbed annually by natural events such as insects, disease, and fire.

Increasing timber product utilization through new technology and product development can facilitate the Post COVID-19 U.S. Wood Products Industry Recovery. As an example, Cross Laminate Timber (CLT) "Mass Timber" construction technology has developed structural timber products comparable to steel and concrete products for use in multi-story building construction. Additionally, cellulosic forest-based bio-crude has been developed utilizing wood waste residuals, biomass and unmerchantable timber that can supplement or replace fossil fuel in refineries or boiler systems.

Infrastructure Bill Support for Wood Products Industry Recovery

The Post Pandemic economic recovery is being challenged logistically by limited transportation capacity. It is similar in the timber industry. The American Loggers Council continues advocating for safer, more efficient transportation with the introduction of the "Safe Routes Act". This legislation would allow for states to authorize truck weights on Federal interstates equal to local and state road weight limits. When passed into law, this legislation will reduce the number of trucks on local roads and reduce driver hours by reducing the number of truck trips necessary to transport timber. Reduced truck trips will reduce fossil fuel consumption and exhaust emissions. Similar Federal legislation has been enacted in Minnesota and Wisconsin for specific corridors.

The American Timber Industry grows and harvests trees similar to how other agricultural commodities are grown and harvested. However, it is not always classified or afforded the same benefits other agricultural commodities receive.

As an example, standing timber is considered an agricultural commodity, yet timber harvesting and hauling timber is not considered an agricultural activity. A Virginia Pine can be harvested as a Christmas tree and receive recognition as an agricultural activity. If the same tree is harvested and transported to a pulp mill or sawmill it does not qualify as an agricultural activity. The ALC requests consideration be given to provide parity between silviculture and agriculture.

Wisconsin is the first state to establish a co-op of timber industry stakeholders to purchase closed mills and reopen them. This structure would be like farmers and ethanol co-op's and allow for the vertical integration of the logging and trucking supply side within the entire forest products process. Federal support and assistance

for the timber industry to implement this new business model will contribute to the

stabilization and recovery of the American timber industry.

To maintain and improve America's forests for maximum social benefit including climate change mitigation, sequestration of carbon, support of rural economies and recreation, sustainable forest management must continue to improve. Forest management is possible only with a secure, professional logging work force to perform the work. To have such a work force, forest products industry is needed to absorb the vegetation being grown in the nation's forest. Every consideration must be given to provide new technologies such as laminated and cross laminated timer, and the emerging biofuels industry, the ability to acquire raw material. This in turn will promote investment in facilities to produce value-added products.

These recommendations will have minimal to no governmental fiscal impact but are simply policy and legislative changes that will support climate change initiatives, reduce fossil fuel consumption, improve forest health, address supply chain disruptions, improve transportation safety, and contribute significantly to the post COVID 10 weed products industry assessment.

COVID—19 wood products industry recovery.

Again, thank you for allowing the ALC to provide testimony regarding the impacts of the COVID—19 pandemic on timber harvesters and haulers. We look forward to working with Members to ensure a speedy post pandemic recovery for the timber harvesting and timber hauling sector.

I am happy to answer any questions.

ATTACHMENT



[http://investor.versoco.com/2020-06-09-Verso-Announces-Necessary-Actions-to-Off $set ext{-}Unprecedented ext{-}Market ext{-}Decline ext{-}Due ext{-}to ext{-}COVID ext{-}19]$

Verso Announces Necessary Actions to Offset Unprecedented Market Decline Due to COVID-19

Miamisburg, Ohio, June 9, 2020/PRNewswire/1—Verso Corporation (NYSE: VRS) today announced that it is taking immediate actions to offset unprecedented market decline due to the COVID–19 pandemic and to reposition the company for

Verso will indefinitely idle paper mills in Duluth, Minnesota, and Wisconsin Rapids, Wisconsin, while exploring viable and sustainable alternatives for both mills, including restarting if market conditions improve, marketing for sale or closing permanently. The decision to reduce production capacity is driven by the accelerated decline in graphic paper demand resulting from the COVID-19 pandemic. The stay-at-home orders have significantly reduced the use of print advertising in various industries, including retail, sports, entertainment and tourism. According to Fastmarkets RISI, North American printing & writing demand fell by 38% year-over-year in April, and operating rates are expected to drop well below 70% during the second quarter.

"It is critical that we maintain a healthy balance sheet and focus on cash flow, while balancing our supply of products and our customers' demand," said President and Chief Executive Officer Adam St. John. "After a comprehensive review of postpandemic demand forecasts and capacity, we made the difficult decision to idle the Duluth and Wisconsin Rapids mills. We expect the idling of these facilities to improve our free cash flow. The sell through of inventory is expected to offset the cash costs of idling the mills.

Verso expects to idle the Duluth Mill by the end of June 2020, and the Wisconsin Rapids Mill by the end of July 2020, resulting in the layoff of approximately 1,000 employees. Verso will continue to supply graphic and specialty papers in roll and

"Decisions to idle facilities are always difficult because they impact employees, their families, and communities," said St. John. "Verso is committed to treating all of our affected employees with fairness and respect. As always, safety is our highest priority and will be our primary focus during this difficult time.

Verso Corporation is the turn—to company for those looking to successfully navigate the complexities of paper sourcing and performance. A leading North American

¹http://www.prnewswire.com/.

producer of graphic and specialty papers, packaging and pulp, Verso provides insightful solutions that help drive improved customer efficiency, productivity, brand awareness and business results. Verso's long-standing reputation for quality and reliability is directly tied to our vision to be a company with passion that is respected and trusted by all. Verso's passion is rooted in ethical business practices that demand safe workplaces for our employees and sustainable wood sourcing for our products. This passion, combined with our flexible manufacturing capabilities and an unmatched commitment to product performance, delivery and service, make Verso a preferred choice among commercial printers, paper merchants and brokers, converters, publishers and other end users. For more information, visit us online at versoco.com.

Forward-Looking Statements

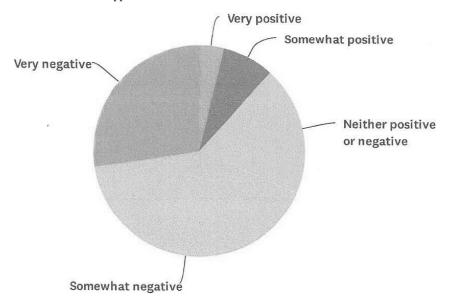
In this press release, all statements that are not purely historical facts are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements may be identified by the words "believe," "expect," "anticipate," "project," "project, "plan," "estimate," "intend," "potential" and other similar expressions. Forward-looking statements are based on currently available business, economic, financial, and other information and reflect management's current beliefs, expectations, and views with respect to future developments and their potential effects on Verso. Actual results could vary materially depending on risks and uncertainties that may affect Verso and its business. Verso's actual actions and results may differ materially from what is expressed or implied by these statements due to a variety of factors, including: uncertainties regarding the duration and severity of the COVID-19 pandemic and measures intended to reduce its spread; the long-term structural decline and general softening of demand facing the paper industry; adverse developments in general business and economic conditions; developments in alternative media, which are expected to adversely affect the demand for some of Verso's key products, and the effectiveness of Verso's responses to these developments; intense competition in the paper manufacturing industry; Verso's ability to compete with respect to certain specialty paper products for a period of 2 years after the closing of the Pixelle Sale; Verso's business being less diversified following the sale of two mills after the closing of the Pixelle Sale; Verso's dependence on a small number of customers for a significant portion of its business; Verso's limited ability to control the pricing of its products or pass through increases in its costs to its customers; changes in the costs of raw materials and purchased energy; negative publicity, even if unjustified; any failure to comply with environmental or other laws or regulations, even if inadvertent; legal proceedings or disputes; any labor disputes; and the potential those risks and uncertainties listed under the caption "Risk Factors" in Verso's Form 10-K for the fiscal year ended December 31, 2019 and Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2020, and from time to time in Verso's other filings with the Securities and Exchange Commission. Verso assumes no obligation to update any forward-looking statement made in this press release to reflect subsequent events or circumstances or actual outcomes.

EXHIBIT A

American Loggers Council 2020 Logger Survey

 $Q30\,$ Has the coronavirus pandemic had a positive or negative impact on your overall business operations?

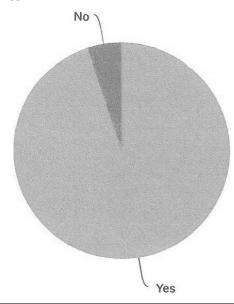
Answered: 404 Skipped: 4



Answer Choices	Responses	
Very positive	3.71%	15
Somewhat positive	7.92%	32
Neither positive or negative	19.80%	80
Somewhat negative	41.09%	166
Very negative	27.48%	111
Total		404

Q31 Do you support the American Loggers Council's or other logging association's efforts in seeking relief for the logging and log trucking industry during the pandemic?

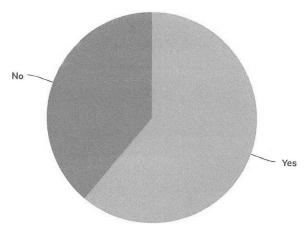
Answered: 404 Skipped: 4



Answer Choices	Responses	
Yes No	94.80% 5.20%	383 21
Total		404

Q32 Did you receive any type of COVID related relief from a Federal program for your business in 2020?

Answered: 402 Skipped: 6



Answer Choices	Responses	
Yes No	60.95% 39.05%	245 157
Total		402

Q33 What Federal relief program did you participate in? Answered: 398 Skipped: 10



Answer Choices	Responses	
Payroll Protection Program	54.27%	216
Economic Injury Disaster Loan	4.77%	19
SBA Express Bridge Loan	2.01%	8
SBA Debt Relief	2.01%	8
Coronavirus Food Assistance Program	0.50%	2
Did not participate in any Federal assistance program	36.43%	145
Total		398



United States Economic Impact: Forest Product Consumption

American Loggers Council

August 28, 2020

BETTER DATA. BETTER INTELLIGENCE. BETTER DECISIONS

Forest2Market

Our mission is to empower participants in the global forest, wood products, paper products, biochemical and bioenergy industries to make exponentially better decisions through the strategic application of industry expertise and unique datasets.

What We Believe

We believe the only way to achieve a true measure and understanding of the market is to collect transactional data.

Our Mission

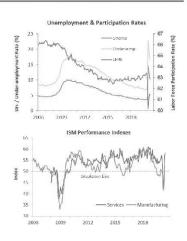
Forest2Market's mission is to empower participants in the global forest, wood products, paper products and bioenergy industries to make exponentially better decisions through the strategic application of industry expertise and unique datasets.

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US Economic Impacts

- Production curtailments due to safety concerns and economic uncertainty
- Severe decline in labor force participation and spike in unemployment
- Decrease in commercial paper demand due to school and business closures
- Decrease in forest product exports due to tariffs, European salvage roundwood exports, and virus-related supply chain constraints

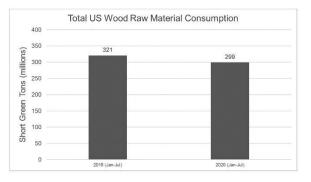




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Impact to Wood Raw Material Consumption

Production curtailments have led to significant changes in total US wood raw material consumption. Deliveries from January to July 2020 are 6.7% below January to July 2019 levels.

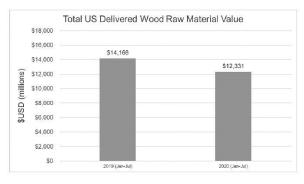




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Impact to Delivered Wood Raw Material Value

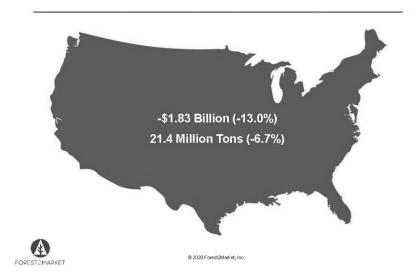
A decrease in wood raw material consumption and delivered prices resulted in a 13.0% drop in total US delivered value from January to July 2020 compared to the same period in the prior year.





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Impact to Delivered Wood Raw Material





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Forest2Market is a global provider of timber pricing, cost benchmarks and in-depth analytics for participants in the wood raw materials supply chain. Our data-based solutions provide insight into complex business issues and support fact-based decision making and planning.

NORTH AMERICA • LATIN AMERICA • EUROPE

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The CHAIR. Thank you very much, Mr. Schienebeck, and, certainly, working frequently with the Virginia Loggers Association, as I do, some of the comments you made, I thought, were particularly impactful.

Certainly, what we have heard on the ground relates back to the fact that with the rise in price in timber products, so many of our timber haulers and foresters did not see the benefit there.

So thank you for making sure that that was a central part of your opening statement.

Mrs. Dauzat, you are now recognized for 5 minutes.

STATEMENT OF CAROLINE DAUZAT, CO-OWNER, REX LUMBER, GRACEVILLE, FL

Mrs. DAUZAT. Chair Spanberger, Ranking Member LaMalfa, and Members of the Committee, thank you for holding this hearing and for your continued work to support the forest products industry.

I am Caroline Dauzat, a fourth-generation owner of Rex Lumber, which operates four southern yellow pine sawmills. I am also a member of the Southeastern Lumber Manufacturers Association, which represents mills, lumber treaters, and their suppliers throughout the southeast.

Additionally, I chair the Softwood Lumber Board. My family has been in the lumber industry since the early 1900s. Rex Lumber Company was founded by my great grandfather, D.W. McRae, in 1926 in Graceville, Florida.

Through years of hard work and dedication, our sawmills now employ more than 650 hard-working men and women while on track to produce over 800 million board feet of lumber per year in 2022.

In addition to lumber, we own a pole and piling manufacturer, land management company, and trucking operation. In total, we

employ 715 individuals.

We also own timber land in Florida, Georgia, and Alabama. Like the rest of the world, the pandemic and market volatility took us by surprise. Our mills were at maximum production before COVID. When the pandemic hit, we implemented strict safety protocols and COVID infections within our company were not widespread.

We were able to utilize the tax credits made available in the COVID relief package to offset the cost of providing for our employees and their families that were impacted by the virus.

Our smaller trucking company, procurement and pole companies were also able to participate in the PPP Loan Program. The lumber industry received essential status and the market rebounded quick-

Rex Lumber was able to produce 689 million board feet from June of 2020 to May of 2021, compared to 575 million board feet over the same period in the prior year. That is an increase in pro-

duction of 20 percent.

As a whole, the North American lumber industry increased production by 1.4 billion board feet last year. Most of this growth was in the South, where production increased 1.1 billion board feet, marking a five percent increase over 2019.

With housing starts being depressed over the past decade, the pandemic ushered in skyrocketing demand for new homes, renova-

tions, and DIY projects, outpacing production.

Sawmills have continued to manufacture lumber as quickly as possible to meet demand. However, we are constrained by manufacturing infrastructure as 36 southern sawmills disappeared during the Great Recession. In fact, production of southern pine did not return to the previous peak of 19 billion board feet in 2005 until

Construction of new mills is impeded by the availability of sawmill machinery, and while we understand the importance of protecting air and water quality, the permitting process can be

For example, the Rex Lumber Mill in Troy, Alabama, which employs 175 people, broke ground in 2018 and will not meet our full production target of 300 million board feet annually until next

Throughout the South, projects currently underway are expected to increase production more than 2 billion board feet over the next 2 to 3 years. This will increase the supply of lumber in the longterm, while creating more markets for timber land owners.

Short-term, our primary constraints are workforce and transportation shortages. While residential construction has been and will continue to be a major portion of our customer base, the industry is looking for ways to diversify our markets to lessen the impact on sawmill infrastructure when the next recession hits.

Specifically, we are working to increase the use of mass timber for nonresidential and larger multifamily housing construction projects. In addition to diversifying the domestic lumber market, utilizing more wood through mass timber also locks up carbon in

the built environment.

This expands markets for landowners that produce trees for the benefit of society and the environment, but most importantly, creates and sustains good-paying jobs in our rural communities.

The government can encourage increased utilization of wood products by supporting the U.S. Forest Products Lab to continue

valuable research for current and new wood products.

Additionally, increased utilization in government projects such as those managed by the General Services Administration and the Department of Defense not only expands mass timber markets directly, but also enhances awareness and acceptance of these innovative pro-environment products in the commercial market.

In conclusion, volatility within the markets continues to be difficult for lumber producers and consumers. Sawmills remain drivers in rural economies while providing opportunities to meet soci-

ety's demand for reduced carbon emissions.

Thank you for your time and I look forward to taking your ques-

[The prepared statement of Mrs. Dauzat follows:]

Prepared Statement of Caroline Dauzat, Co-Owner, Rex Lumber, Graceville, FL

I would like to thank the Committee for holding this hearing on the impact that the COVID-19 pandemic has had on lumber supply-and-demand. I would also like to thank the Committee for your ongoing work in support of the forest products sector to provide benefits for the American people, including essential forest products such as lumber and packaging, habitat for wildlife, carbon sequestration, recreational opportunities, and economic growth.

Company Background

I am Caroline Dauzat, a fourth-generation owner of Rex Lumber, along with my brother and two sisters. Rex Lumber operates four Southern Yellow Pine lumber mills in Graceville and Bristol, Florida; Brookhaven, Mississippi; and Troy, Alabama. I am also a member and past director of the Southeastern Lumber Manufacturers Association (SLMA). SLMA is a trade association that represents sawmills, lumber treaters, and their suppliers throughout the Southeast. SLMA's members produce more than 4.5 billion board feet of solid sawn lumber annually, employ over 12,000 people, and responsibly manage over 2 million acres of forestland. These sawmills are often the largest job creators in their rural communities, having an economic impact that reaches well beyond people that are in their direct employment. Additionally, I serve as the current chair of the Softwood Lumber Board.

ment. Additionally, I serve as the current chair of the Softwood Lumber Board.

My family has been involved in the lumber industry since the early 1900s. Rex Lumber Company was founded by my great grandfather, W.D. McRae in 1926 in Graceville, Florida as a cypress sawmill, which later became an oak flooring manufacturer. In 1971, my grandfather, Robert McRae and his children, including my father Finley McRae, acquired full control of the company and proceeded to add a Southern Yellow Pine mill in Graceville. In 1980, the Graceville mill was sold and the family constructed a new sawmill in Bristol, Florida under the name North Florida Lumber. In 2001, my family bought the original Rex Lumber mill in Graceville out of bankruptcy and proceeded to completely rebuild the mill, restarting production in 2003, marking the return of the Rex Lumber name. In 2009, in the depths of the Great Recession, our family decided to purchase another sawmill in Brookhayen, Mississippi and upgraded the facility for improved high quality, high volume lumber manufacturing that is now leading the industry in safety, quality and production. In 2017, we made the decision to invest in a greenfield mill in Troy, Alabama, which is now a state-of-the-art mill that continues to increase production as additional equipment comes online and our workforce continues to grow.

In total, our sawmills employ more than 650 hardworking men and women while

on track to start producing over 800 million board feet of lumber per year in 2022. The lumber we produce is used primarily in residential and commercial construction applications. In addition to lumber mills, our family owns Apalachee Pole Company, Inc. which manufactures utility poles and pilings, North Florida Woodlands, Inc., a timber procurement company, and Rex Transportation, which is a flatbed and boom trucking company that transports our lumber and poles to customers. We also own timberland in Florida, Georgia and Alabama.

The forestry and forest products sectors directly support over one million American jobs. That number increases to 2.9 million jobs if you include the indirect jobs supported by the industry.1

COVID-19 Impact and Unexpected Demand Increase

Like the rest of the world, the pandemic and proceeding market volatility took us by surprise. Our mills were operating at maximum production before the pandemic hit. When governments ordered the economy to shut down, we scrambled to keep our employees safe while simultaneously preparing for a recession. Fortunately, COVID infections within our company were not widespread. However, when employees were unable to work due to COVID infection or exposure, we found the tax credits provided for in the Families First Coronavirus Response Act helpful in offsetting the cost of providing income and benefits, on a temporary basis. Additionally, while Rex Lumber is too large by Small Business Administration standards to have participated in the Paycheck Protection Program, it was a very useful Program for our trucking and pole companies and other smaller lumber producers to maintain payroll at the initial uncertainty of the pandemic, before lumber prices bounced back and began the drastic increase we witnessed over the last year. While there were some issues around implementation of the Program, it was helpful overall.

Our industry received "essential industry" status and we implemented strict COVID protocols within our operations, so we faced minimal disruptions in lumber production. With the continued ramp up of our new Troy mill and upgrades to our existing mills, we were able to produce 689 million board feet from June of 2020 to May of 2021 compared to 575 million board feet over the same time period in the prior year, an increase in production of 20%. As a whole, the North American lumber industry increased production by 1.4 billion board feet last year. Most of this growth was in the U.S. South, where production increased 1.1 billion board feet, marking a 5% increase over 2019.2

In spite of this increase, new home construction was up nearly 12% in 2020 vs. 2019.³ According to the U.S. Census, the demand for new housing continued into 2021, as seasonally adjusted housing starts were up 37% in March 2021 compared to March 2020.4 In addition to new housing starts, the DIY and home renovation markets also unexpectedly increased more than 20%, when people began quarantining due to COVID-19.5 This unforeseen market demand reduced lumber inventions. tories while mills were adjusting production levels in response to the economic slowdown and government mandated restrictions at the on-set of the pandemic.

Recently, we have seen lumber demand and supply begin to balance, and prices drop accordingly. In fact, prices are now down more than 60% since the May highs. While we have no way of knowing whether this down trend will continue, we do know that lumber production capacity continues to increase with new greenfield mills and expansions across the Southeast while new single family home permits are 37% higher in May 2021 compared to May 2020.7

Sawmill Infrastructure Constraints

As the country and the economy slowly return to normal, sawmills have continued to manufacture lumber as quickly as possible to meet on-going high demand. However, we have been constrained by manufacturing limits, and increasing production is more complicated than simply deciding to make more lumber. Sawmill infrastructure declined significantly when the Great Recession began in 2007. In the South, for example, the total number of pine mills operating in 2007 was 276. In 2017, the total was only 240.8 Production of Southern Yellow Pine's previous peak was 19 billion board feet in 2005. The industry did not return to this level until 2019.9 Mean-

¹ https://www.forest2market.com/blog/new-report-details-the-economic-impact-of-us-forest-

products-industry.

2 https://forisk.com/wordpress//wp-content/assets/Press-Release_Mill-DB_20210518.pdf. ${\it 3https://www.marketwatch.com/story/new-home-construction-activity-soars-to-highest-level-$

in-over-a-decade-as-builders-rush-to-produce-single-family-homes-2021-01-21.

⁴ https://www.census.gov/construction/nrc/pdf/newresconst.pdf.

⁵ https://www.cnbc.com/2020/08/18/home-depot-hd-q2-2020-earnings.html.

⁶ https://markets.businessinsider.com/commodities/news/lumber-price-today-outlook-august-

analyst-commodities-prices-2021-7.

https://eyeonhousing.org/2021/07/may-single-family-permit-gains/.

⁸ https://www.forest2market.com/blog/making-more-lumber-is-not-so-simple. ⁹ Southern Forest Products Association. May 6, 2021.

while, housing starts grew almost 200% between the fourth quarter of 2010 and first quarter of $2021.^{10}$

Adding additional capacity through expansion of existing mills or building new mills takes eighteen months to 3 years to complete. Equipment manufacturers are also experiencing high levels of demand, leading to higher prices for concrete and steel to build the new equipment and structures. Another ongoing factor is the regusteet to build the new equipment and structures. Another ongoing factor is the regulatory burdens, such as long permitting processes for air and water. For example, the Rex Lumber mill in Troy, AL, which employs 175 people, broke ground in 2018, started limited operations in 2019, produced over 100 million board feet in 2020, and is on target to produce 175 million in 2021. Upcoming 2022 projects at our Troy mill will increase production to 300 million board feet annually. In total, projects that are currently underway across the South are expected to increase Southern Yellow Pine production by more than 2 billion board feet over the next 2 to 3 years. 11 Lumber manufacturing expansion projects will increase the supply of lumbaring the large term while production are projects. ber in the long term while creating more markets for timberland owners.

Workforce shortages, rail car availability and trucking capacity constraints are also hindering our ability to increase lumber supply. Our industry requires a variety of skill sets ranging from hourly mill production and maintenance positions to salaried supervisors, managers, and administrative personnel. Hiring qualified people to fill these various roles is always difficult but has become more challenging during the economic recovery. As enhanced unemployment benefits have subsided in the states where we operate, we are seeing capable individuals begin to apply for work again. Rex Lumber, in addition to other members of SLMA, are taking various approaches to find qualified candidates. For example, we have coordinated with local community colleges to manage paid internship programs in hopes of finding qualified people that are able to quickly move up the company ladder. Additionally, SLMA has worked with sawmill members to design outreach materials for high

school students that want to go directly into the workforce. 12
Rail car availability along with trucking capacity was problematic before the pandemic and has become increasingly difficult to manage. At Rex Lumber, we are planning to increase our truck fleet over the next few years as we are unable to find outside companies to move our products in a timely fashion. This is another issue that is widespread in our industry. For example, another SLMA member in South Carolina had 7 million board feet of sold lumber sit at his mill for a week last month because he could not secure trucks to transport finished products to cus-

Economic and Environmental Sustainability for Forest Products

The impact of the Great Recession has been long felt in the lumber industry, while the impact from the pandemic appears to be a shorter term phenomenon as it relates to forest products supply-and-demand. To make the industry more resilient to future market volatility, diversification will be critical. Housing, both single family and multi-family is a large majority of our markets, and we expect that to continue to be the case for the foreseeable future. However, we do believe that looking at other opportunities for our products throughout the built environment would help offset the drastic impact that another housing recession might have on sawmill infrastructure capacity. Additionally, using more wood products for construction purposes has the benefit of being a more environmentally friendly building product than competing building materials. 13

Innovative building materials, such as mass timber, have the potential to open new markets in the commercial, defense, and other infrastructure sectors. Thanks to updated 2021 International Building Code changes that allow 18 story mass timber buildings, ¹⁴ on-going efforts by the forest products industry, support for research and innovation grants from this Committee as well as the Forest Service, along with increased societal demand for greener building products, we are seeing growth in the utilization of mass timber. Recent examples include Wal-Mart's new 2.42′ million headquarters in Arkansas that will be constructed of cross laminated timber and glulam mass timber composed of southern yellow pine and the five cross laminated timber hotels built through the Privatized Army Lodging (PAL) program on bases in different regions of the country. We are also excited about the potential for

12 https://www.lumber.works/.

 $^{^{10}\,}https://www.forest2market.com/blog/making-more-lumber-is-not-so-simple.$

¹³ https://www.thinkwood.com/blog/4-things-to-know-about-mass-timber.
14 https://www.awc.org/pdf/education/des/AWC-DES607A-TallWood2021IBC-190619color.pdf.

mass timber bridges, sound barriers, and other infrastructure research that is being supported through the U.S. Forest Products Lab and academia.

To encourage continued growth for these innovative new markets, Congress and the Administration should support utilization of these products through the government procurement process. The General Services Administration (GSA) owns and leases over 3762′ million of space. 15 GSA's Green Building Advisory Committee has recommended "a whole building life cycle assessment approach for larger projects (over \$3 million), requiring that buildings be designed in such a way that life-cycle carbon assessment shows that the selected design results in a 20 percent carbon reduction." ¹⁶ Utilizing forest products in place of traditional more carbon intensive building materials can help GSA meet this ambitious goal. ¹⁷ Additionally, the Department of Defense spends billions of dollars per year on military construction.

Mass timber was accepted into the Unified Facilities Code in 2016, but we have seen very little utilization of mass timber in military construction beyond the PAL hotels. Given the positive data surrounding these hotel projects, we would like to see the Department of Defense look for additional opportunities for mass timber construction. 18 Given the impact of Hurricane Michael on the Florida Panhandle, the rebuilding of Tyndall Air Force Base is one example where mass timber could be deployed.

In addition to encouraging the GSA and DOD to prioritize forestry products as an environmentally friendly domestic building material, we request strong support for the Forest Service's Forest Products Lab and Wood Innovation Grants to continue needed research and experimental projects to continue finding new and innovative markets for wood products.

In conclusion, lumber mills continue to produce lumber as quickly as possible to meet on-going demand and as the industry invests in greenfield mills, new supply will rise to meet future demand. To dampen the impact of the next housing recession on sawmill infrastructure capacity, we hope to diversify markets beyond the traditional housing sector, which we believe fits with on-going societal demands to decrease the carbon footprint of the built environment. Continued efforts by the industry with continued support of the Committee will play a critical role in meeting these economic and environmental goals. Thank you for the opportunity to participate in this important hearing.

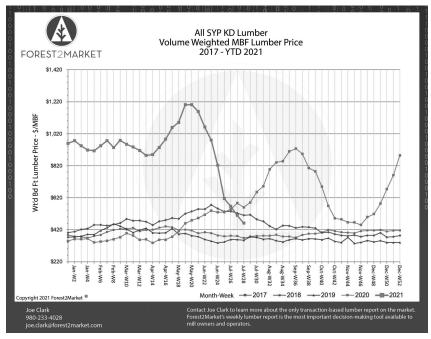
 $^{^{15}\,}https://www.gsa.gov/real\text{-}estate/gsa\text{-}properties.$

¹⁶ https://rmi.org/press-release/the-us-federal-government-takes-the-lead-on-low-embodied-carbon-buildings/.

17 https://www.researchgate.net/publication/344694854_Wood_buildings_as_a_climate_solu

¹⁸ https://www.woodworks.org/wp-content/uploads/4-Story-CLT-Hotel-WoodWorks-Case-Study-Redstone-Arsenal-01-05-16.pdf.

[ATTACHMENT]



The CHAIR. Thank you so very much, Mrs. Dauzat, for your opening testimony.

And, Mr. Imbergamo, please begin whenever you are ready, and welcome back to the Agriculture Committee.

STATEMENT OF WILLIAM IMBERGAMO, EXECUTIVE DIRECTOR, FEDERAL FOREST RESOURCE COALITION, WASHINGTON, D.C.

Mr. IMBERGAMO. Thank you, Chair Spanberger. Happy to be here.

And Ranking Member LaMalfa and Chair Spanberger, thanks for the opportunity to speak to you today about the public lands timber industry and our experience in the pandemic and as the economy has continued to recover.

Our industry weathered the pandemic with remarkable resilience. At the outset, lumber prices fell further in a few weeks than they did during the entirety of the Great Recession in 2007 to 2009. Mills reacted by reducing production, dropping shifts, and in some cases, closing entirely.

As Members of the Committee know, however, demand for wood products rapidly rebounded as the DIY market and housing starts picked up steam.

Prices climbed to record highs in early May of this year, but since then, lumber prices are down more than 65 percent, proving that the laws of supply-and-demand remained very much in effect.

I want to be clear. The Forest Service is to be commended for their efforts to continue delivering timber sales during 2020. They took steps to quickly provide contract extensions and other flexibility when the market collapsed, and then delivered a 3.2 billion board feet Timber Sale Program during the pandemic and a historically bad fire year.

While this was amongst the highest level sold in over 2 decades, it still represents less than ½ the allowable sale quantity identified

in current forest plans.

As the market for solid wood products has remained strong, however, the Forest Service Timber Sale Program has not kept pace. At the end of the second quarter of this fiscal year, timber sales from the National Forests were down 19 percent compared to the same quarter last year.

Modest efforts to salvage burn wood from last year's fires has been limited by the threat of litigation and this includes even just

modest roadside hazard tree removal.

Many forests that burned in 2020 will convert to brush fields if they are not harvested and replanted. Brush fields are more susceptible to future fires and do not sequester carbon in the way healthy growing forests do.

Salvaging burned timber would store carbon in long-lasting wood products while generating revenues to pay reforestation costs.

Since the 1990s, the Forest Service has presumed that sensitive species—grizzly bears, spotted owls, and others—need closed canopy high-density forests in order to survive. We reduced harvests by more than 80 percent across the National Forest System as a result. We have had more than 20 years to see the results and they are not pretty.

As harvests have dropped, wildfires have increased. Overstocked National Forests have succumbed to fires driven by drought, climate change, and insects. Communities have been decimated as mills, which serve as economic engines, were forced to shutter.

The benefits we were told to expect, from tourism, healthier watersheds, and improved wildlife habitat, have not materialized either. Over 360,000 acres of northern spotted owl habitat were destroyed by catastrophic fire in Oregon last year alone, and there was more in California and Washington as well.

We have seen similar destruction in grizzly bear habitat in Montana. Sometimes National Forests simply fail to offer sufficient timber for sale regardless of whether there is a species of concern in the forest. This threatens nearby mills and the blue-collar jobs they provide.

Just this year, one of my member companies, Neiman Enterprises, was forced to shutter their mill in Hill City, South Dakota, after the Black Hills National Forest failed to meet its timber target for 3 consecutive years.

Over 120 people in the small town of just over a thousand are now out of work and the ability to manage the Black Hills has been

permanently reduced.

Given the widespread forest health and wildfire crisis we are seeing on our National Forests, we hope that at the very least, the agency would not reduce their current timber sale levels. Loss of mill capacity permanently reduces the ability of the Forest Service to manage forests and drives up land management costs.

Congress has enacted numerous streamlined authorities to get management done and has more than doubled the hazardous fuel budget since 2005. Many of the authorities originated in this Committee, including key provisions adopted in the 2014 and 2018 Farm Bills.

We urge Congress to treat our National Forests as critical green infrastructure and invest further in increases in management, focusing on mechanical thinning and harvest as well as collaborative approaches like Good Neighbor Authority.

The funding in the bipartisan Outdoor Restoration Partnership Act (H.R. 2682) would be a good start on this investment. The threat of litigation remains a significant burden on the Forest Service.

Congress must address the extremely disruptive *Cottonwood* precedent, which the Obama Administration fought all the way to the Supreme Court. That one precedent has led to over 400 million board feet being tied up in litigation in one region alone. That is enough to build 24,000 houses.

The Forest Service should also plan in advance how it is going to help National Forests recover from increasingly frequent and, therefore, increasingly predictable disturbances like wildfires and hurricanes.

While a few forests have taken steps to prepare in advance for salvage and recovery efforts, Congress can provide clear support and direction that will help these steps stand up in court.

I have other specific recommendations in my testimony, and I appreciate the opportunity to share these thoughts with you today. I look forward to your questions.

[The prepared statement of Mr. Imbergamo follows:]

PREPARED STATEMENT OF WILLIAM IMBERGAMO, EXECUTIVE DIRECTOR, FEDERAL FOREST RESOURCE COALITION, WASHINGTON, D.C.

Thank you for the opportunity to speak to you today about the impact of the pandemic on the public lands timber industry, and our experiences as the broader economy has continued to recover. Congress has an opportunity to use the upcoming infrastructure legislation to make badly needed investments in the management of our National Forests. However, Congress must understand both the urgency of the need for management, and the difficulties Forest Service managers face as they grapple with an expanding forest health crisis on our public lands

grapple with an expanding forest health crisis on our public lands. The Pandemic and the Public Lands Timber Industry: When the pandemic began, widespread economic disruption caused lumber prices to plummet by more than 43 percent in the space of less that 6 weeks. This is a bigger drop in lumber prices than the one that took place over 3 years during the 2008–2011 "Great Recession." While toilet paper and other household paper demand initially skyrocketed due to hoarding, my industry, like most others, anticipated a prolonged recession and began taking steps to prepare. This meant curtailing production, and in some cases closing mills. The industry, smaller in 2020 than it was in 2009, scaled back production, anticipating depressed demand.

The Forest Service moved quickly to allow timber contract holders flexibility to extend current timber contracts. Over 700 timber contracts were granted extensions within a few months of the beginning of the pandemic. Individual National Forest units took steps to adjust field operations and managed to maintain a timber sale program in 2020 that matched the roughly 3.2 Billion Board Feet sold in 2019. While among the highest level sold in over 2 decades, this still represents a little more than half the Allowable Sale Quantity identified in current Forest Plans.

Operating during [COVID] was a challenge for my member companies, just as it was for many other industries. Although we were designated as an essential sector by the Department of Homeland Security, our mills had to adjust operations to

allow for social distancing and other [COVID]-related precautions. Occasional out-

breaks required mills to take downtime or reduce production.

The Forest Service deserves credit for keeping the timber sale program going in 2020, during both the disruptions caused by the pandemic and the onset of the record-breaking fire season. Many of the larger fires took place in the last month of the fiscal year, a time during which many sales are awarded each year.

The Lumber Recovery: As you know, the disruption caused by the pandemic led to a sudden—and very much unexpected—rebound in lumber markets. After tanking dramatically in March 2020, by the first week in July, prices began to recover. By May of this year, the DIY market, combined with the strongest year in new single-family home construction in more than a decade, sent lumber prices to record highs. Since May, however, lumber markets have proven that the law of supply-and-demand remains very much in effect: The CME lumber index has fallen 62 percent in the last 2 months as production and market demand have equalized.

The capacity of mills to meet demand has not been the sole issue in lumber markets. Efforts to recruit professional loggers and truck drivers has been lagging for some time. Several of my members have told me that the lack of trucking capacitydue to a shortage of drivers—is a major bottleneck in their efforts to meet market

The forest products industry is capital intensive, and it is difficult to raise the capital needed to build and modernize mills without a reliable supply of timber. The lumber and panel industry shrank significantly in the wake of the Great Recession. The sudden demand for lumber and other building materials in the last 18 months caught our industry by surprise, much as is it did other observers.

For the mills I work with, the 2020-2021 Fiscal Year was an opportunity to make up for decades of generally low prices for our products. It's important to note that not every segment of the wood and paper industry has enjoyed strong pricing as we've been through the pandemic. The closure of in-person schools and offices has severely depressed demand for printing and writing paper, for instance.

However, as market demand for solid wood has remained strong, the Forest Service timber sale program has not kept pace. At the end of the second quarter, timber sales from the National Forests were down by over 19 percent compared to the same quarter last year. More alarmingly, modest effort to conduct removal of fire-killed timber near roads and campgrounds has been limited by threats of lawsuits from environmental groups. Salvage of burned timber from National Forests in Oregon and California has been limited, in keeping with patterns in recent years. Failure to remove burned wood from unreserved lands condemns these forests to convert to brush fields, which are more susceptible to future fires and do not sequester carbon the way healthy, growing forests do.
Salvage of this burned timber would store carbon in long-lasting wood products

while generating revenues to defray reforestation costs. Outside groups, such as The Nature Conservancy and American Forests, estimate that there are over 7 million acres of National Forest requiring reforestation, figures that were arrived at before

the disastrous 2020 fire season.

Going Forward: Strong Lumber Markets Can Help Save Our Forests, Store Carbon, and Create Jobs: Outgoing Chief [Vicki] Christiansen told Congress last year that up to 40 percent of the National Forest System is at moderate to high risk of catastrophic fires.

Throughout the 1990's, the management of our western National Forests was changed to "protect" several species, including Spotted Owls, several salmon species, and the Grizzly bears. In each case, the Forest Service has presumed that closedcanopy, high-density forests were the preferred habitat for each of these species. We've had more than 20 years to see the results, and they are not pretty.

As harvests have dropped, wildfires have increased. Overstocked National Forests succumb to fires driven by drought, climate change, and insects. Communities have been decimated as mills, which served as the economic anchor for those small towns,

were forced to shutter.

The benefits we were told to expect—from tourism, healthier watersheds, and improved wildlife habitat, have not materialized either. 360,000 acres of Northern Spotted Owl habitat were destroyed in catastrophic fire last year in Oregon alone.

Where species listings aren't enough to force mills out of business, simple failure to deliver on the timber sale program can often stand in. Just this year, one of my member companies, Neiman Enterprises, was forced to shutter their mill in Hill City, SD after the nearby Black Hills National Forest failed to meet its timber target for 3 consecutive years. Over 120 people in the small town of just over 1,000 people are now out of work, and the ability to manage the 1.2 million acre Black Hills National Forest is permanently reduced.

Unfortunately, this is not the only example. In January of last year, R-Y lumber, another member of mine, was forced to shutter their mill in Townsend, Montana. The economic damage in the small town of 1,800 will be significant.

Given the widespread forest health and wildfire crisis we're seeing on our National Forests, we'd hope that at the very least the agency would not reduce their current timber sale level. Congress has enacted numerous streamlined authorities to get management done, and has more than doubled the Hazardous fuels reduction budget since 2005. Many of those authorities originated in this Committee, including key provisions adopted in the 2014 and 2018 Farm Bills.

We would urge Congress to treat our National Forests as critical green infrastruc-

ture and invest in further increases in management, focusing on mechanical thinning and harvest, as well as cooperative approaches like Good Neighbor Author-

- Support infrastructure spending that invests in Forest Management on our Federal lands—The Forest Service has a 10 year, \$20 Billion strategy to begin to reverse the overstocking and fire dangers we see threatening so many communities. The bipartisan, bicameral Outdoor Restoration Partnership Act is a good starting point for this effort.
- Clarify that outside of "reserved" acres, such as Roadless Areas and Wilderness Areas (which make up about half of the National Forest System), the top priority should be reducing fuel loads and managing for a healthier, more diverse National Forest System.
- Direct the Forest Service to plan in advance how it will help National Forests recover from increasingly frequent—and therefore increasingly predictable—disturbances like fires, hurricanes, and other wind events.
- Finally and fully address the disastrous Cottonwood case, which has led to litigation that has tied up over 400 Million Board Feet of timber in one Forest Service Region alone (that's enough lumber to build over 25,000 houses).
- · Invest in essential workforce development to ensure a vibrant and capable forest workforce to conduct needed forest management and restoration work on the National Forests and other Federal lands.

Conclusion: In the late 1990s, we made a public policy mistake. We assumed that large land set asides would protect wildlife habitat, ensure clean water, and stimulate the economy. We're now paying the price for that mistake. The species that were supposed to benefit haven't. The watersheds we were told were protected are now burnt. In some cases, entire towns-and lives-were lost. And mills continue to struggle when the National Forests they rely on fail to meet current, modest timber targets.

As the economy continues to recover following the pandemic, we hope Congress supports a concerted effort to restore, reforest, and manage the 193 million acre National Forest System. We have to move to a new paradigm where the National Forests are treated as renewable resources to be managed for climate, social, and economic benefits. We've tried producing those things through a strategy that focused on large set asides and reduced management. We know now that that approach is a failure. We look forward to working with this Committee to move forward into a better future for our National Forests.

The CHAIR. Thank you very much.

Mr. Macdonald, could you please begin your testimony when you are ready?

STATEMENT OF IAIN MACDONALD, DIRECTOR, TALLWOOD INSTITUTE, **DESIGN OREGON** STATE UNIVERSITY, CORVALLIS, OR

Mr. Macdonald. Chair Spanberger, Ranking Member LaMalfa, and Members of the Subcommittee, thank you for the opportunity to testify today.

My name is Iain Macdonald. I serve as the Director of the TallWood Design Institute collaboration between the Colleges of Forestry and Engineering at Oregon State University and the College of Design at the University of Oregon.

We carry out applied research education, product development and testing for designers, builders, and manufacturers. Much of our work focuses on a new breed of engineered wood products known as mass timber.

In my testimony today, I will focus my comments on the role of wood as a tool to sustainably rebuild our infrastructure and economy

The capacity to process wood into mass timber with reliable and predictable performance is facilitating a sea change in sustainable construction around the world. Mass timber is precision engineered and robotically fabricated.

This enables wood, which has typically been restricted to single-family homes and low-rise multifamily structures, to be used in buildings that are larger and taller than ever before.

In 2015, with support from researchers at OSU, Oregon was the first state to produce cross-laminated timber panels certified for use in buildings.

As a result, Oregon became home to many of the nation's earliest mass timber buildings and a vibrant cohort of pioneering architects, engineers, and construction firms with expertise that is now in demand across the country.

Nationwide, the rate of adoption of mass timber has been dramatic. In 2013, there were less than five construction projects started. As of June 2021, 1,169 mass timber buildings have been constructed or are in design with projects in all 50 states.

Manufacturing capacity has expanded in lockstep from just one U.S. production facility in 2015 to nine today. All these are bringing back high-value jobs to rural communities, from Washington to Alabama.

But these buildings still represent only 5 million of the 932′ billion of U.S. commercial building space. In addition to the economic impacts, there are carbon reduction benefits from expanding wood construction, as we have heard.

Currently, 40 percent of U.S. greenhouse gas emissions are derived from buildings. We can improve their thermal efficiency to reduce the energy needed for heating and cooling. But this alone will be insufficient to achieve the steep reductions we need in carbon.

Manufacturing processes for timber products have a much lower carbon footprint than those for concrete and steel. Timber products sequester carbon for the building's lifetime and can be recycled and given a second life afterwards, and lighter wood structures mean that less concrete is needed in the foundations.

It all adds up to a ready-made formula for reducing our carbon emissions by doing what we already planned to do, modernize and improve our physical infrastructure.

Mass timber can help our nation rebuild in other ways too. Two innovative Oregon projects are embracing the use of underutilized species and restoration timber to tackle the housing crisis.

They aim to design kit-of-parts housing systems using domestic timber that can be prefabricated at high volumes and low unit cost for communities in need, whether these are urban centers addressing homelessness, rural communities ravaged by fire or other natural disasters, or working families caught in the missing middle who cannot afford to own homes. Research has played a key role in driving innovation, showing us that mass timber buildings can deliver fire and seismic safety on

par with any concrete or steel structure.

Further work is critical, however, to help our industry drive down costs, optimize fiber use and allow mass timber to be implemented on a broader scale. The USDA Agricultural Research Service, the Forest Products Lab, and the U.S. Forest Service have been invaluable partners for our research.

The leadership and financial contributions of these agencies have been matched 200 percent by state and private-sector support, and

industry has worked hand-in-hand with us.

To fully realize the enormous potential of timber construction, I offer these recommendations.

First, continue and expand the support to USDA-ARS, the Forest Products Laboratory, and the Wood Innovations Program for this important applied work.

Second, facilitate support for workforce training and development. This is critical for the successful growth of the manufac-

turing base.

Last, I would encourage this Subcommittee to consider opportunities for incentivizing the use of domestically-produced low-carbon building materials at Federal, state, and municipal levels.

In closing, thank you for the opportunity to testify today and I would welcome the opportunity to answer any questions.

[The prepared statement of Mr. Macdonald follows:]

PREPARED STATEMENT OF IAIN MACDONALD, DIRECTOR, TALLWOOD DESIGN INSTITUTE, OREGON STATE UNIVERSITY, CORVALLIS, OR

Introduction

Chair Spanberger, Ranking Member LaMalfa, and Members of the Committee, thank you for the opportunity to testify today. My name is Iain Macdonald and I serve as the Director of the TallWood Design Institute (TDI), a unique collaboration between the Colleges of Forestry and Engineering at Oregon State University and

the College of Design at University of Oregon.

TDI carries out applied research, works in partnership with industry on product development and testing, and offers education and outreach to current and future designers, builders and manufacturers. Our mission is to conduct the science that can open up viable new applications for the use of wood in the built environment and to disseminate the results of that work efficiently to stakeholders in the publicand private-sectors. The data we generate is used to validate designs for innovative new buildings, evolve building codes, increase the knowledge of design and construction practitioners, and help U.S. manufacturers develop and launch new products and compete effectively in domestic and export markets. Our work focuses heavily on a new breed of engineered wood products collectively known as mass timber, which can make use of small-diameter logs that can be sourced from sustainably managed forests and forest restoration projects, and contribute to the reduction of greenhouse gases and wildfire risk.

The U.S. Wood Products Sector and COVID Impacts

The forestry and wood products sector is a major contributor of employment and GDP to the national economy. Overall, forest products comprised about 1.5% of the total U.S. economy in 2018, supported almost three million jobs, and represented about 5% of the entire manufacturing output of the country. The sector is particularly important to the hundreds of rural communities in which processing facilities are located, from the Pacific Northwest to the Southeast. Importantly, the forest sector in the U.S. is one of the only significant economic sectors with net negative carbon emissions, making wood products the most climate-sensitive structural building material available today.

During the COVID-19 pandemic, most forestry and wood product manufacturing businesses stayed open as essential services, but there were still significant impacts

to this sector. The need to implement safety and social distancing protocols in plants resulted in temporary shutdowns and lower concentrations of staff in certain spaces, both of which decreased productivity. Delivery logiams further constrained supply. Lumber producers anticipated reduced housing demand in the early days of the pandemic and decreased production levels accordingly. Broadly, the industry has faced these lumber supply constraints while also experiencing high demand for lumber for remodeling and renovation work, which has caused a record spike in prices.

Outside of the supply of lumber for single-family homes, the mass timber product industry experienced reduced demand when some commercial office and hotel projects that would have used mass timber were put on hold or canceled altogether. Additionally, uncertainty around the extent to which remote employees will return to offices continues to impact the commercial construction sector. In the pulp and paper sector there were some mill closures due to a lack of demand for high-quality paper for events, programs, etc. And, critically, the logging industry lost approximately \$1B of revenue.

Wood as a Tool to Sustainably Rebuild our Infrastructure and Economy

Wood is the only major building material that can be renewed and regrown. The capacity to process this basic material into engineered products with reliable and predictable strength and performance attributes has undergone a renaissance of late. A family of relatively new engineered products, known as mass timber, is facilitating a sea change in sustainable construction around the world. The characteristics of these products allow wood, which has typically been restricted to single-family homes and low- and mid-rise multifamily dwellings, to be used in buildings that are larger and taller than ever before.

Wood fell out of favor as a building material in office, institutional and commercial buildings around 100 years ago, as concrete and steel became dominant. At the time there were justifiable concerns about wood use in these types of structures, relating to fire, structural strength and seismic resilience. Today this landscape is radically different. Mass timber products are precision-engineered and robotically-fabricated to offer specific strength and stiffness characteristics, depending on where they are needed in a building and what loads they must bear. Modern fire suppression and alarm systems have greatly improved fire safety, and mass timber beams, columns and panels are supplied in large cross-sections, meaning that the face of the wood element will char at a slow, predictable rate, while insulating the core structure and preserving its load-carrying capacity. All of this has been empirically validated through applied research at our major universities and institutes, due in large part to investments made to and through the USDA Forest Service, Forest Products Lab, and Agricultural Research Service.

As a result of this work, we are continually pushing the boundaries of what is possible with wood. In 2015, with support from researchers at OSU, Oregon was the first state to start producing cross-laminated-timber panels certified for use in buildings. This product can be fabricated in large dimensions up to 12' by 60' for wall and floor applications, and is a game-changer in terms of construction speed and efficiency. As a result, Oregon became home to many of the nation's earliest mass timber buildings. A vibrant cohort of pioneering architects, engineers and construction firms have emerged in the state, with expertise that is now in demand across the country. In Milwaukee, Wisconsin, a 25 story mass timber apartment building named Ascent will shortly become the tallest wood building in the world, at 284', with the timber engineering, fabrication and installation performed by a company in Portland, Oregon.

In the last 5 years, the rate of adoption of mass timber in the United States has been dramatic. In 2013, there were less than five construction projects started. In 2020 more than 100 projects commenced, and as of June 2021, 1,169 mass timber buildings had been constructed or were in design, with projects in all 50 states.

buildings had been constructed or were in design, with projects in all 50 states. Manufacturing capacity has expanded in lockstep, from just one U.S. production facility in 2015 to nine today. These are now bringing high-value jobs back to rural communities, from Colville, Washington to Dothan, Alabama.

This progress is impressive for a new-to-the-U.S. construction technology, but mass timber buildings still represent a tiny fraction of U.S. real estate that is built each year. There are currently just over 52 million of mass timber buildings in the nation, but in 2019 there was 932 billion of commercial building space. The U.S. has the capacity and know-how to significantly ramp up the number of mass timber structures, and there are compelling reasons for doing so structures, and there are compelling reasons for doing so.

^{1 2021} International Mass Timber Report, Forest Business Network.

² US Energy Information Administration: Annual Energy Outlook 2020.

The manufacturing processes for timber products have a significantly lower carbon footprint than those for concrete and steel. Furthermore, the carbon naturally sequestered in wood is stored within the building for its lifetime, and the wood components have the potential to be recycled and given a second life afterward. The lighter strength-to-weight ratio also means that less concrete is needed in the foundations. All these things are important, given that the general scientific consensus is that the warming effects of CO₂ emissions will be irreversible unless we can achieve significant reductions by 2030

achieve significant reductions by 2030.

Currently 40% of U.S. greenhouse gas emissions are derived from the construction and operation of buildings. Efforts to improve the thermal insulation of windows, doors and walls to reduce the energy consumed for heating and cooling are laudable, but these alone will be insufficient to achieve reduction targets. Mass timber building can further advance efforts to achieve measurable new gains in the sector and nation's carbon reduction efforts. As soon as we construct a mass timber building we immediately avoid emissions. For example, District Office, a six story office building in Portland, avoided 750 tons of carbon emissions by using timber instead of concrete, the equivalent of taking 570 cars off the road for a year. The amount of timber used to build it took Oregon's forests just 21 minutes to grow.

Research is Driving the Expanded Use of Sustainable Wood Products

Research and development are driving innovation and adoption of mass timber products and modern wood construction. The work that is ongoing at TDI and other institutions aims eliminate a number of key barriers to wood use, as well as learning more about how we can enhance technical, sustainability and cost performance. We already know that mass timber buildings, when designed correctly, can deliver fire and seismic safety on par with any concrete or steel structure. However, further research is critical to help our industry drive down the cost of doing that, while at the same time optimizing fiber use and allowing mass timber to be implemented on a broad scale.

At TDI, we are putting data into the public domain on fire, seismic, structural and acoustic performance of tall wood buildings, so that more architects and engineers have the tools and confidence they need to effectively design them and contractors have the know-how to build them. And the research goes beyond the wood itself. We are testing different kinds of connectors and assemblies to find out which ones offer the best combinations of cost-efficiency, strength, fire resistance, moisture protection and acoustic separation. We are working on termite-resistant CLT for Hawaii and the southern states, and energy-efficient structural panelized systems for use in Alaska. Along the way we are even learning important things about the psychological and physiological benefits of wood in our indoor environments, which have important ramifications for wellness and disease control.

All of this work involves a high degree of collaboration, both across university research institutions and between the public- and private-sector. Early next year, ten universities, twenty companies and the USDA Forest Products Lab will be working together to test a ten story mass timber building on the shake table at UC San Diego. The test will yield a treasure trove of new information about the behavior of these buildings in earthquakes, enabling us to further optimize their performance.

The USDA Agricultural Research Service, the Forest Products Lab and the U.S. Forest Service have been invaluable partners for our own research at TDI. Since 2015 their support has enabled our affiliated researchers to launch more than 50 research projects and acquire state-of-the-art technical equipment that is helping us train our manufacturers in critical new skills like computer-aided design and fabrication. The leadership and financial contributions of these agencies have been matched 200% by state and private-sector support, and industry has worked handin-hand with our researchers to identify the applied research projects that can generate tangible market impacts in a 3 to 5 year timeframe. This year we launched the REACTS Consortium for Research on Engineering, Architecture and Construction of Timber Structures. The organization consists of pioneering firms in those industry sectors who are partnering with us and pooling cash contributions and technical expertise to jointly drive the innovation agenda. Notably, work at OSU funded by the Economic Development Administration directly resulted in the launch of a first-in-the-world mass timber product—the Mass Plywood Panel—by Oregon's Freres Lumber Company, and their investment in a \$40M greenfield manufacturing facility.

Mass timber innovations can play a positive role in our nation's rebuilding in other ways too. TDI is working hard to evaluate the viability of using under-utilized species in these products, and research is underway already to test the strength properties of ponderosa pine, white fir and Alaskan spruce for use in CLT. Each

year sees our forestlands and the communities in proximity to them increasingly threatened by wildfire. By selectively thinning these overstocked forests and using the restoration fiber in our buildings we can simultaneously reduce fire risk, improve the safety of humans and property, and support high-value jobs in rural com-

munities as well as design and construction jobs in urban centers

Two innovative projects in Oregon seek to embrace opportunities for developing wood products made with under-utilized species while at the same time tackling the housing affordability crisis that plagues many of our major cities. Their aim is to design kit-of-parts housing systems using domestic mass timber that can be prefabricated in a factory and deployed in high volume and at low unit cost to communities in need-whether these are urban centers addressing homelessness, rural communities ravaged by fire or other natural disasters, or working families caught in the 'missing middle' who cannot afford to move from rental housing into their own homes. The projects exploit the rapid assembly advantages of mass timber and utilize design principles that enable disassembly and reuse at end of life, helping to further extend the sustainability of these structures. What has been particularly invigorating about these projects is the momentum and determination of all involved to make a lasting impact on these challenges-from Federal agencies like FEMA and EDA to Oregon state agencies and private firms.

Key Roles that Government can Play

The research funding and scientific leadership provided through the USDA Agricultural Research Service and the Wood Innovations Program has been pivotal in advancing the science around mass timber buildings, and TDI is grateful to the Subadvancing the science around mass timber oundings, and 1D1 is grateful to the Sub-committee for its work in supporting these key agencies and their research pro-grams. Continuing and expanding the support available for this critical applied re-search work will enable the innovative collaborations between research institutions, Federal and state agencies and the private-sector to make even greater impacts.

Support for workforce training and development will also be critical for the growth of the mass timber supply chain in the U.S. When firms move up the value chain from commodity products such as lumber to custom products such as mass timber, they pivot from a focus on producing products of low complexity and low variation in high volumes to a business model in which each component is designed for a specific place in a specific building. This typically means that those firms must train or hire for new digital skills such as 3D computer-aided-design and computer-controlled fabrication. The good news is that these digitally-oriented jobs are more likely to be appealing to young people than traditional physical work, provided that training is available. TDI is rolling out a certificate program on these topics for industry learners. However, it will be important to implement strategies to introduce these new careers to young people and encourage them to take them up, in particular among demographics that have not traditionally been associated with the forest industry

And, regarding the Subcommittee's current efforts to consider priority needs for modern infrastructure investment, the INVEST in America Act includes some key investments in rail infrastructure that would help to address critical lumber supply chain constraints. For example, in Oregon, TDI completed a supply chain analysis last year that revealed existing rail infrastructure is serving as an impediment to

growth, due to loading constraints on some bridges.

Last, I would like to encourage the Subcommittee to consider opportunities for incentivizing Federal, state and municipal levels of government to accelerate adoption of green construction with the use of domestically-produced low carbon building materials. By stimulating domestic demand for products like mass timber, we can divert logs from offshore export to domestic processing, grow our manufacturing base and maximize the socioeconomic benefits provided by each tree harvested. This is the best way to ensure that forests remain as forests.

In closing, thank you for the opportunity to testify today. I welcome the oppor-

tunity to answer any questions.

The Chair. At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members.

The Ranking Member and I would like to recognize the Ranking Member of the full Committee, Mr. Thompson, if he would like to begin with asking his questions.

Mr. THOMPSON. Madam Chair, Ranking Member, thank you very

much. I very much appreciate it.

To all of the witnesses, thank you so much for your testimony today. Thanks for your advocacy and your work in terms of our forest products, our forest industry, your perspectives that can help us have both a healthy environment and a healthy economy.

And so, Mr. Imbergamo—Bill, in your testimony, you discussed the impact that lower timber targets have on sawmills and the supply chain, and the Administration has proposed reducing the Forest Service's timber targets in the Fiscal Year 2022 budget request from 4 billion board feet to 3.4 billion board feet.

What can we do to encourage the Forest Service to harvest more timber system-wide and closer to each forest's allowable sustain-

able growth or Sales Quantity Act?

Mr. IMBERGAMO. Yes. So, the Administration's budget actually proposed 3.4 billion board feet, and that would represent an increase over the current year's expected output and it would be an increase over last fiscal year. But it is down from the 4 billion board foot target that was in the prior year's budget request.

The reality is on the National Forest System the timber outputs have been climbing steadily since bottoming out in 2000. But, we

are not even close to capturing either growth or mortality.

And, I think one of the things I mentioned is preparing in advance to be ready when you have a disturbance event. There are portions of the National Forest System that aren't going to get managed—wilderness areas, roadless areas, for the most part.

But the general forest—each unit of the National Forest System should be prepared to capture value and capture the carbon from damaged trees. The response in different parts of the country of the

Forest Service to these events is markedly different.

The National Forests in Mississippi salvaged 85 percent of the acres that were damaged by Hurricane Katrina, whereas in the West, it is rare for a forest, say, in California, where the Ranking Member of the Subcommittee is from, to harvest, to salvage more than five to 15 percent. So 85 percent of what is burned is just, basically, converting to brush fields.

So that is a big area where the Forest Service can do better. It would help sustain local industry and we would have substantial

carbon benefits as well.

Mr. Thompson. Thank you for that.

Markets, obviously, are extremely important. We have to have markets for our timber, for our board feet, in order to be able to have that demand to be able to do that healthy management of the forests, let alone support our economies and rural America.

What can Congress do to incentivize new markets for wood waste and low-grade wood, and would growing new markets for these materials benefit both forest health and hazardous fuels reduction?

Mr. IMBERGAMO. That is for me? Yes, absolutely. I think one of, whenever you have had the Forest Service in front of this Committee or other committees, they always talk about the difficulties they have in selling low-value trees. And, I think the markets for residuals and lower-value materials are critical to making the entire industry work.

When we saw schools and offices go virtual last year, demand for printing and writing paper evaporated, and that was already a sector that was under a lot of stress, and Henry can perhaps talk a little bit more about that.

But, right now what we would like to see is for the Forest Service to sustain the mills that they have, like Rex Lumber's mill in Bristol, Florida, and the remaining mills in the Black Hills.

If you don't have those primary wood processors, the entire wood value chain is going to break down. It is difficult to make it go strictly on residuals and low-value biomass.

Mr. Thompson. And my final question for you, Bill, or anyone that would have insight on this, tell us more about the *Cottonwood* precedent and why it is so damaging and what can Congress do on that front.

Mr. Imbergamo. So the *Cottonwood* precedent was a decision of the Ninth Circuit Court of Appeals that the Obama Administration challenged and, basically, it has allowed environmental groups to win injunctions against timber and forest management projects while forcing the Forest Service to go back and consult with the Fish and Wildlife Service on the underlying forest plan.

It is important to understand there is no conservation benefit here because the Fish and Wildlife Service would have already signed off on the project. So there is no project level of concern, and in some cases, these forest plans are over 30 years old.

So Congress fixed part of that with the critical habitat designations. I believe that was in the 2018 Farm Bill. But there are three other prongs in the *Cottonwood* test. And as I mentioned in my testimony, 400 million feet are tied up just in Region 1 and that is putting a substantial strain on the industry in that part of the world.

Mr. THOMPSON. Well, once again, thank you. Thank you to all of our witnesses.

Madam Chair, thank you so much. The CHAIR. Thank you very much.

And the chair now recognizes Ms. Pingree of Maine for 5 minutes.

Ms. PINGREE. Thank you very much, Madam Chair. I really appreciate you holding this hearing. Thank you to all the witnesses. All of you really have provided excellent insights into some of the challenges that we are facing from the Forest Service to our private industry.

Representing the State of Maine, we are the most forested state in the nation. We don't have a lot of Forest Service land but we face some of the same challenges that I heard from Minnesota and some of the Midwestern states: closure of our paper mills, all the things you talk about, trucking, labor. They are all issues for us as well.

I want to ask my first question to Mrs. Dauzat. Thanks for telling us a little bit more about the ups and downs of your lumber mill. I am sure this has been a really challenging couple of years with the loss of demand and then huge interest in it, and I really appreciate the expansion that you are making in the jobs you provide in your area.

You talked a little bit about the Forest Service Wood Innovations Grant Program in helping the industry to diversify and look to the future. I am really interested in the innovation side, and I also chair the Interior Appropriations Subcommittee.

So we are trying to increase the funding there. But I am working on a new bill to expand and make some improvements to that program and other Forest Service programs.

Could you talk a little bit more about how in your industry they

have helped or how they could be changed to benefit you?

Mrs. Dauzat. I think any supportive research—research is wonderful, but those end-markets being viable are very important.

There is a lot out there and we would love some of it to get to fruition. We personally have looked into biochar as something, especially as we have been impacted by Hurricane Michael.

But we are not finding the markets there to support the investment, and so—and the research is critical. It is very important. But getting to that end-user to where there is an industry that can be supported has to be available.

Ms. PINGREE. That is great. Yes, thank you for saying that, and I think you are right. It is one thing to have the research, but we also have to figure out how to make sure there is a market there

so it is economically viable, and that is really important.

And we are hoping to add a biochar facility in Maine, so we are huge fans of that as well. But you are right, there are some challenges.

Mr. Macdonald, thank you for the work that you are doing and your really interesting testimony. We are sorry you are on the West Coast instead of the East Coast, but we have some great research going on in Maine as well.

And you talked a little bit about the climate benefits of materials like mass timber, which is something we are really interested in exploring more in terms of the infrastructure investments that Congress is making.

In May, we were working on some of those things as well, and including wood fiber insulation product, which we think also expands those markets and we hope you include in some of your pro-

But can you talk more about any thinking that you have done about how we could get the GSA or the Department of Defense or other sections of the Federal Government to kind of use our purchasing power to increase and better utilize these products?

Mr. Macdonald. Thank you for the question, Congresswoman.

I am a Canadian citizen, and there are some precedents in Canada that worked quite well. In 2009 in British Columbia, there was something enacted called the Wood First Act (SBC 2009), which was a piece of legislation that specifically incentivized the use of wood in buildings paid for with provincial funding.

That catalyzed a lot of the early interest in mass timber. In fact, British Columbia was the first place in North America that really got going with this. And, there was no particular teeth to the legislation in terms of there being a penalty for not using wood.

But the general principle was that if it could be done within the bounds of building codes and so on, then it should be done, and it really got a lot of that early work going in.

And as a result, in the same province of British Columbia 52 municipalities enacted their own Wood First resolutions to say, when we do build a municipal building that we use wood.

Ontario did a similar thing in 2012. I know that in Oregon there was thought about doing that a couple of years—maybe 5 years ago, but there was a little bit of resistance from other industries.

A low-carbon building materials incentive would be something that would be palatable to a wide range of industries. There are really good innovations going on in other materials, too, like concrete, as the Committee has previously heard. And so that would be something that could really drive adoption.

Ms. PINGREE. Great. That is a wonderful suggestion and I will look more into that, because I think that, as I think you might have suggested in your testimony, it is something we should use Federal, state, and local governments to really encourage this.

And it is kind of a crying shame if in states like Maine or Oregon we don't have a wood first ordinance in our communities, because that is a great way to support it.

I am out of time. Thank you, Madam Chair. I yield back the time I don't have.

The Chair. The chair now recognizes Ranking Member LaMalfa for $5\ \mathrm{minutes}.$

Mr. LAMALFA. Thank you again.

Let me turn to Mr. Schienebeck for a moment here. We, of course, are seeing the issues for the last year of trying to get the product from the woods to the shelf.

What can we think about in terms of a pandemic situation like we currently are trying to come out of or one that may happen in the future?

And just as a practical matter, I got frustration out there on the front line with people saying, we are outside. We are out in the woods.

We are not in large groups of people—if there was really hesitancy to be able to do that work in a spread out situation of whether it was Federal forestlands or even somewhat in the private-sector, too.

What do you think we could do to improve protocols to allow people to do more outside work and not have such tight constrictions such as COVID, and basically, people having to stay home?

Mr. Schienebeck. It was really good to see that Homeland Security did recognize the timber haulers and harvesters as being essential workers. That was good to know, because most of our folks do work in machines by themselves.

They don't, and a lot of the larger logging companies they did do different protocol. They didn't put a whole group of four people in one vehicle and send them off to the woods. Some of them did different things. They might have paid gas stipends and stuff for them to take their own vehicles and separate them.

From that regard, probably one of the bigger issues that we ran into was really having access to agency folks when the stay-at-home orders took place.

So, a timber sale goes on and you want to close the timber sale out, it was difficult from time to time to get a hold of somebody to actually close the timber sale out.

There are certain requirements that are needed. You have to have your roads cleaned up. You have to have different things done to get that approval to close out. I think that is really an improvement that could be made is having better access.

We have all gotten more used to Zoom and those types of things and we are trying to create apps for loggers and truckers. Everybody carries a computer in their pocket and over the phone and

being able to give them access to those people.

Mr. LAMALFA. And that is—that is what we were running into a lot of is ability to get the permitting done, getting the work done for the agencies to allow those folks to get out there and do that,

and we do need to find improvement there.

Mr. Imbergamo, talk a little bit about increasing the salvage situation. I mean, we have so much potential in the West, millions of acres, and I will say it again, that when you fly over after, say, a few years after a fire in a particular area and you can see there is the checkerboard pattern of private land versus Federal land, and you can tell which one is which just by flying over and seeing which one has been recovered, which ones have been starting to replant and restoration, et cetera.

How the heck are we going to increase the salvage on Federal lands? What do we need to do to help the Federal agencies to get on track from lawsuits or get motivated to get this out, maybe fight

the lawsuits?

Because we are not helping our Federal lands with this lack of recovery and that window of time where you have—you can salvage trees and actually get value out of them within a year after a fire and we lose that because of lawsuits dragging on for years and years.

What do you see as one of the linchpins of being able to speed that process up and get the value and actually get them restored

again for markets that still seems to want it?

Mr. IMBERGAMO. Yes. I think you have it exactly right. The problem is right now we do fight the lawsuits and frequently the agency

prevails. So, ultimately, the projects go forward.

The problem is that they go forward sometimes too late. If it is a proactive project, and we actually had a great example of this in your district back in 2012 where the Forest Service had tried for over 6 years to do a thinning in some land that was a Spotted Owl habitat.

And they finally prevailed in the lawsuit and before the project could be implemented the project area burned. That was not good for the owls. I think that that fire burned 20 or so Spotted Owl nesting areas.

And then on the salvage side, you said it. If we don't move fast enough, you lose value fairly quickly, much more quickly in the

eastern U.S. than in the West.

As I said, if Congress would bless the idea of preplanning the salvage so that resalvage outside of wilderness and roadless can go forward in an expedited fashion, that would enable us to get the fiber on a timely basis and help pay for the reforestation that we know is going to be needed.

Mr. LAMALFA. Yes, exactly. It seems we just keep running into, one particular case in east Butte County in northern California there is grant money sitting there waiting to be used for Fire Safe Council work, but they couldn't get out of their own tracks due to some combination of NEPA or CEQA (California Environmental Quality Act). And so that grant money sat for 2 years. Finally, the area burned and it is just a horrific story. So we need to expedite.

So I yield back. Thank you, Madam Chair.

The CHAIR. Thank you, Mr. LaMalfa.

The chair now recognizes Ms. Kuster of New Hampshire for 5 minutes.

Ms. KUSTER. Thank you, Madam Chair, and thanks so much for holding this important discussion.

New Hampshire is the second most densely forested state in the entire country, and nearly 60 percent of all our agricultural lands are working for us.

A strong conservation ethic is deeply embedded in our state's history as is a heritage of maintaining forests that are responsibly managed.

However, the forestry sector in our region, like the rest of the country, is facing serious challenges that have only been exacerbated by the uncertainties of the COVID pandemic.

I was pleased to hear from foresters and loggers who were able to access Paycheck Protection Plan funds to get some relief at the height of COVID, and I was also proud to help champion \$200 million in direct relief for those businesses that was signed into law in December and rolled out by the USDA just this week.

I have heard from timber stakeholders in my district that this assistance is vital and cannot come soon enough. And while I am glad we were able to work in a bipartisan way to help this industry, we must not lose sight of the long-term issues that still need to be addressed.

For New Hampshire, the future of forest products has a direct correlation to the future of our rural economies and our iconic wild places. With land prices climbing rapidly and residential development increasing, the survival of our small family-owned forests depends upon having strong markets for their wood products.

As New England's paper mills had, largely, closed over the past couple of decades, it is imperative to help connect foresters with new market opportunities.

So I am excited about the tremendous progress being made to incorporate mass timber and wood products into tall building construction and other infrastructure, including, I might add, in a new building addition to a building in the Navy Yard in our neighborhood here in D.C.

I have also been proud to champion legislation that provides incentives to help transition families and businesses away from fossil fuels and toward modern wood boilers and heating systems.

The forest products industry desperately needs new markets like this for low-grade wood that could otherwise accumulate on the forest floor and accelerate fires.

And these are just a few of the avenues that should be pursued in order to maintain and grow a healthy market for wood products. Congress can play a role in fostering this progress.

Now, Mr. Schienebeck, your testimony highlighted just how severe an impact the pandemic has had on the financial health of

many businesses in the timber industry. Could you elaborate on why high demand and prices for products like lumber did not trickle down the supply chain to small business harvesters and haulers?

Mr. IMBERGAMO. Sure, I would be happy to answer that question. So it really becomes a supply-and-demand thing. So when you look at, I would say, especially in Wisconsin, Minnesota, and Michigan, we had three pulp and paper mills close, and they bought a substantial amount of wood. They bought, roughly, 25 percent of

the pulpwood that was harvested in this region.

And when that closes, we have a lot of loggers that are out there that are—they have a lot of equipment and stuff and they produce a lot of wood. So when you lose that market, you have a supplyand-demand issue.

I mean, it only makes sense. If I am going to purchase for development just way overproduction out there, I am not going to pay as much for that.

And then on the other hand, when we saw a lot of the markets kind of curtail a little bit from purchasing because they had no idea what the pandemic was going to bring with stay-at-home orders, they basically stopped production and these mills actually closed their production and those markets no longer existed.

But then for building material all of a sudden it just took off, I am not sure-I am not sure we knew we had that many do-it-

yourselfers at home.

Ms. Kuster. Yes. It certainly—my husband has done a lot of projects and the price goes up every week when we go back to the lumberyard.

Mr. Macdonald, the work that you and your colleagues are doing at the TallWood Design Institute is very exciting and I am interested in the workforce development components necessary to support mass timber in tall and intricate building construction.

How long will it take to complete the Certificate Program you are rolling out in Oregon, and do you think this could be a model that could inspire similar programs in community colleges and schools

across the country?

Mr. MACDONALD. Thank you, Congresswoman, for the question. Yes, the work will be completed, largely, over the next 12 months. We are rolling out a combination of e-learning and blended learning to kind of maximize the access to manufacturers in remote communities.

A lot of the work that we are doing is focusing on the digital skills that are missing. If you are a lumber manufacturing company and you start to manufacture with something like mass timber, you are designing for customized products.

Instead of selling in high volume and low complexity, you are selling customized building components for a specific place in a spe-

cific building.

So a lot of the skills gaps are in things like computer-aided design, computer numerical control, fabrication, and that kind of thing. So we do feel it is important to partner with community colleges to really, say, maximize the access to those programs in all the communities where they are needed.

Ms. Kuster. Great. Thank you so much. My time is well over.

I yield back.

The CHAIR. The chair now recognizes Mr. DesJarlais from Tennessee for 5 minutes.

Mr. DESJARLAIS. Thank you, Madam Chair. I would like to pick up where we left off a little bit on lumber prices. What I am hearing back home from people is, they were going to build a house, they started building a house, and now the costs have gone up exponentially. And, Mr. Schienebeck, you touched on this in your opening testimony.

I guess the question is, these prices are high. The producers are not getting paid more. The haulers are not getting paid more. They did get some relief from PPP and that is good. The big box lumber

stores are charging these high prices.

The question would have answered is who is getting rich off

these high lumber prices.

Mrs. DAUZAT. Being a lumber producer, we are a commodity and the prices of lumber go up and down. I will tell you our highest average price, weekly average price, was \$1,200. We are now, I am seeing, \$350 to \$450 average price.

So it has corrected, and I believe we submitted a chart showing

So it has corrected, and I believe we submitted a chart showing kind of lumber prices over the last 5 or so years and you can see the anomaly that happened in 2020 and 2021 due to the demand created by the pandemic. So demand just outpaced supply and the prices went up—

[The chart referred to is located on p. 26.]

Mr. Desjarlais. Okay. But somebody was making some money somewhere, whether it is Georgia Pacific, Sierra Pacific. These

companies, their stock has gone up.

We saw a similar phenomenon in the beef industry. The producers couldn't sell their cattle. The packers were shut down due to COVID. But the prices we are paying in the grocery store are high. People are asking who is making money, is it the grocery stores, is it the big producer.

Somewhere in both these industries it seems like down the chain people were getting paid by the taxpayer COVID relief, but some-

body is making money somewhere.

And I don't believe it is the producers. I don't believe it is the haulers. But I do think there are big companies in there that almost seem to be like price gouging we see sometimes with gasoline.

Do any of you feel that that is the case?

Mrs. DAUZAT. It is a commodity market. It goes up and it goes down. So, we have lived with this. I have been in this industry for 23 years.

In 2009, I was selling lumber for under \$200 per 1,000 and losing money every day. It is a supply-and-demand industry. Our country is not real used to commodity markets and the volatility they can create.

But what happened was just an extreme demand. Also, due to depressed housing, we lost so many mills through the Great Recession and then housing starts have been depressed for over—it has been over 10 years. So we just had an under supply of housing on top of this.

Mr. DESJARLAIS. They are projecting, though, it is going to take 2 or 3 years to normalize. You say they have already come down

tremendously, but a lot of prognosticators are disagreeing with that.

But let me move on. And this one, I guess, is for anyone who wants to answer it. We have heard some talk recently of potential changes to the inheritance tax, including a recent proposal from the Administration discussing the possibility of eliminating the step-up in basis that allows families to leave certain assets to their heirs and reduces their capital gains liability. Would anyone here be able to discuss what this would look like for the timber industry?

Mrs. DAUZAT. I can tell you what it would look like for a family business. We are fourth generation and I am actively trying to get

this business into the fifth generation.

But it takes planning on day one. The minute you have a child, you have to start planning and start gifting. Because we are not cash rich. We are not a cash rich industry. We are an equipment rich industry. We have to invest a lot of money into our businesses.

And so when someone passes away, you have to have a lot of life insurance or you have to have gotten it out of your estate to maintain the hardware and have gotten in the large and have to have gotten it out of your estate to maintain the large and have gotten in the large and

tain the business.

Mr. DESJARLAIS. Okay. Let us just touch briefly on labor issues as well. Most industries, restaurants, service industries, cannot get people back to work. There are nine million available jobs out there. How is this impacting this industry in terms of being able to get people who were laid off due to COVID back on the job?

Mrs. DAUZAT. Well, in the states we operate in the unemployment assistance has ended. I think both the last—Florida ended it at the end of June and Alabama and Mississippi were a little bit

earlier.

We are starting to see people come back into the market looking for jobs. It was very tough through the last few months getting employees into the workforce. So with the reduction of that, we are seeing more people come into the workforce.

Mr. DESJARLAIS. Though the take on there is that if we end these additional benefits that we have been seeing around the country, then we are going to see people go back into the workforce. But as long as we continue to provide the extra \$300 per week, we are going to continue to have the problem.

And, Madam Chair, I went over, too. I am sorry. I yield back.

The CHAIR. Thank you, Mr. DesJarlais.

And the chair now recognizes Mr. O'Halleran for 5 minutes.

Mr. O'HALLERAN. Thank you, Madam Chair and Ranking Mem-

ber, for putting on today's hearing.

The COVID-19 pandemic raised unique challenges. I remember in a number of fires talking to Forest Service people also and when they were fighting fires, and the challenge that was presented to them

And as we have heard today, it will help us better understand the lasting effects and identity opportunities for future economic growth. My district includes part of six National Forests in addition to the Grand Canyon. We are loaded with pinyon pine. That is the largest pinyon pine forest in the world, and the wood products industry in my district plays a key role in forest health and wildfire risk.

In cooperation with the Four Forest Restoration Initiative, 4FRI, the role of low-value small-diameter ponderosa pine remains a major issue in the success of 4FRI in the establishment of a sustainable restoration economy. At one time this year in my district we had 14 fires going at one time, none of them over 10,000 acres.

So I remain hopeful that we can develop an efficient and sustainable use of these products to reduce the fire risk in Arizona's forests. Careful forest management is critical to ensuring the safety and stability of the region and the wood products industry in Arizona.

Mr. Macdonald, you mentioned ways in which mass timber innovations play a role in helping with other key challenges, such as wildfires and the need for new products to reduce costs for thinning, a critical element, and reducing fuel loads in western states like Arizona.

Can you describe the challenges and the opportunities for creating mass timber products and using underutilized species like ponderosa pine?

Mr. Macdonald. Thank you, Congressman, for the question.

We are doing a lot of work on ponderosa pine specifically and what we have found is that the technical characteristics of the material are such that there is no significant barrier to their use in mass timber products.

In some cases, for example, they might use them in the middle layers of a cross-laminated timber panel with stronger material on the outside.

But, really, the strength characteristics are not as good as something like Douglas fir. But there are applications in buildings that have lower loading requirements, for example, that kind of thing.

So more of a challenge right now looking forward, is working out the logistical, the business case, the economics of the supply chain and the logistics.

How do you get that restoration fiber to a sawmill that can process it, set up to work with sometimes small-diameter timber, and then to a mass timber processing facility in a way that is commercially viable?

For sure, any markets we can create for this product will help to offset the cost of restoration work, which is really critical to reducing fire risk.

But I think the business case, looking at logistics and transportation, is the problem that we have to work on next.

Mr. O'HALLERAN. Thank you, and is there more targeted support we can provide, we in the government or others, in the area to make a better impact?

Mr. MACDONALD. Yes. The Wood Innovations Program and programs like that have been very, very useful to a large range of

projects—not just research, but pilot projects.

There is a great example in John Day, Oregon, of the community working hand-in-hand with a sawmill that was—that was experiencing a-basically, they ran out of fiber, traditional fiber, and the community worked with them, environmentalists worked with them, and came to an understanding that it is better to use this wood to thin the forest to save the forest, basically, and protect it than to try to oppose the use of it.

And so it resulted in the sawmill being able to remain open and continue to employ people in the community and for this restora-

tion work to happen in a commercially viable way.

So, the continuation and the continued funding for the Wood Innovations Program would be very, very useful for that kind of thing. And if there is ways to provide tax incentives to those kinds of projects where you are retooling, for example, a dormant sawmill, trying to bring it back online to—

[The information referred to is located on p. 63.]

Mr. O'HALLERAN. We will have to talk about it later. We are over our time.

Madam Chair, I do want to say that I would hope the Forest Service starts to use the 20 year contracts that we have allowed them to use now for a couple of years.

They seem to be going slow at getting that up to speed, and it is critical that this be part of the process.

And I yield back.

The CHAIR. Thank you, Mr. O'Halleran.

The chair now recognizes Mr. Allen for 5 minutes.

Mr. ALLEN. Thank you, Chair Spanberger, for having this hearing today. Although I would tell you, we have been getting an earful from my timber industry and our home builders for quite some time, and I wish we could have gotten together earlier. But we are here and thank you for doing this.

For the last half year, we have been dealing with these challenges facing our timber industry, and, of course, COVID-19 gets

blamed most of the time for it.

The most critical issues the timber industry tells me they are facing right now are lack of labor, shipping costs, combined with lack of truck drivers, low prices for uncut timber and insufficient domestic milling capacity, and the inflation that is caused by this insufficient milling capacity.

We do know and I had noted, in previous hearings as much as 2 to 3 years ago, that we were seeing a lot of consolidation in our building industry, particularly from non-U.S. companies and that

was a concern.

And so, Mr. Schienebeck, in your testimony, you highlighted the slim profit margin that timber harvesters and haulers receive.

Obviously, you all feed the milling facilities, and why haven't we investigated why the stump prices are depressed and then when you get to the mill you get these inflated prices?

Do you not have safeguards in your industry to deal with some-

thing like that or does the government have to get involved?

Mr. Schienebeck. Well, typically, I guess, I would say a lot of that gets into antitrust violations. We would be looking at that as a collective industry.

Typically, it depends on supply-and-demand, and being a logger myself for 32 years, I went through a lot of those challenges where I would buy a timber sale.

I knew exactly what my costs were. It is a little bit different in our industry. It is not like going to Wal-Mart and you pay whatever price is on the product, right. You don't go up to the cash register and say, "Well, I don't think this is really worth that much money so I am only going to pay you \$10 for this pair of shoes instead of the \$15 that you are asking."

So we know what our costs are. We know exactly what they are. Most of our folks are very good businessmen. Yet, when we go into the mill, it is, like, well, we are only going to pay you what we think we can pay you based on what we are selling our end-product for, and that is kind of the way it works in our industry.

So it is very difficult for a group of loggers to get together and even discuss anything like that. We just don't do it because anti-

trust is a very serious violation and we treat it that way.

Mr. ALLEN. But you could not, like, demand an investigation into this, whatever the—again, I don't know who benefited from the price of lumber when it—but, obviously, it came from—it wasn't the timber owners.

It was not the loggers and, of course, like I said, with the mills, we just had this consolidation, which is creating big, in my opinion, a lack of competitiveness and, certainly, the Federal Trade Commission needs to look into that issue.

Moving on to the next big disturbing piece of this whole thing to me is the forest fires, and it is amazing to me that a developed nation like the United States allows people who know nothing about our greatest resource, our timber lands, to control the management of those timber lands and allow these fires to take place.

And so, Mr. Schienebeck, as a logger, can you give us your take on what it is going to—I mean, and of course, we understand this has been going on for 20, 30 years, and we are way behind in managing.

Do you see a way out on this? How do we fix this and how can

we fix this problem quickly?

Mr. Schienebeck. Well, one thing I think we need to do is support the industry that we have and also make sure that everybody has got affordable raw material.

I mean, I—personally, I don't see any good reason why we should be importing a lot of the lumber products and stuff that we are

when we are growing it right here in this country.

We just don't have access to it a lot of times, and it needs to be affordable because we do compete globally anymore if we don't, and we have other industries that we could be supporting—biofuel industry.

I was recently passing through the central United States and saw, I don't know, hundreds of windmill towers. I would rather see a growing forest there that is being harvested sustainably and having that go into energy production in biofuels or wood pellets or whatever they are.

But the biomass industry just hasn't taken off because there are a lot of subsidies for other types of energy that are out there, and that industry is not included in that.

Mr. Allen. Okay.

Mr. Schienebeck. But, if we really support a good manufacturing base that we will be able to—I mean, we got to have a place to go with the wood. We are growing it.

Mr. ALLEN. Right.

Mr. Schienebeck. We harvest it—

Mr. ALLEN. I am sorry, but I am out of time and the Chair is

looking at me so I better yield back here. But thank you. I think you are right on and thank you for your

input, and thank you, Madam Chair, for this hearing

The CHAIR. Thank you very much, Mr. Allen, and I am far more comfortable tapping the gavel at my colleagues who should be looking at that timer than I am at our guests. But, I was giving Mr. Allen an eye.

Thank you very much for that very good answer to the question,

Mr. Schienebeck.

The chair now recognizes Mr. Panetta for 5 minutes.

Mr. PANETTA. Great. Thank you, Madam Chair. I appreciate this opportunity and, obviously, my friend, Ranking Member LaMalfa, as well.

Mr. Schienebeck, let me follow up on that question real quick that my friend from Georgia asked in regards to not necessarily suppression of wildfires, which we are doing, unfortunately, plenty of, not just this year but a few years back we have been doing that, especially out on the West Coast where I come from there in California.

I have to say, what about forest management but, obviously, level-headed reasonable forest management in which we can reduce the potential for wildfires, things like including removing dead and dying trees, using controlled burns to reduce fuel in larger fires and removing invasive and nonnative species to create habitat that is better suited for wildlife and native species.

What about if we did something where if we had reforestation projects that would be for at least 100,000 acres? What if we did something like my Wildfire Emergency Act (H.R. 3534) that authorizes \$250 million to do something like this?

Mr. Schienebeck, do you think projects of this nature and scope that big are needed to restore our forests that face the threats of climate change and the effects of climate change that we are seeing right now, even out here in Washington D.C. with the haze that we are seeing from the smoke of the wildfires that are out West?

Mr. Schienebeck. Yes, I think that would be very helpful. I think it is a helpful tool, number one, for the agencies to be going and doing their EISs and their NEPA documents based on those larger acreages and kind of being a bit more inclusive on that, and then breaking those down into smaller affordable timber sales that loggers and companies can afford to buy.

When you look at it kind of across the landscape it is more efficient. Economically, it just makes more sense to do it that way on those larger projects like that. I think that goes a long ways with

climate change. You are looking at smoke there.

Well, we are getting smoke here in Rhinelander, Wisconsin, from Canada right now. There is a haze on the road and that is what the newscasters tell us that it is coming from. So, it is out there and that is not healthy either. So I think that would go a long ways in helping that.

Mr. PANETTA. Thank you. And another bill I have called the RE-PLANT Act (H.R. 2049), which addresses the important issue, the reforestation and, basically, dealing with the Reforestation Trust

Fund, which I am sure you are familiar with.

Right now, as you know, Mr. Schienebeck, that there is a cap at \$30 million and, basically, it is finance. That trust fund to reforest is financed through tariffs collected on wood products but it is capped at \$30 million, and what my bill would do, excuse me, would, basically, take that cap off.

Would you think something like that would help, obviously, one, reforestation projects, but also lead to more resilient and healthier

forests?

Mr. Schienebeck. Yes, it would. I mean, in today's world, \$30 million is not a lot of money. Probably look pretty good in our retirement accounts but, in reality, it is not a lot of money.

And I think that if you would allow, because a lot of our forests regenerate naturally but there is a lot of it that needs to be re-

planted from storms, that type of thing.

And for us, we have seen some of those in industry shut down and that really stifles their ability to research better trees that can perhaps resist emerald ash borer, oak wilt, some of those types of things.

So I think that funding would go a long ways to help those nurseries develop trees that are more resilient to those types of things, which in turn, would be planted and really help to sequester car-

Mr. PANETTA. And part of that is nursery capacity as well. Can you speak to the importance of shoring up the nursery capacity for

these types of products?

Mr. Schienebeck. Yes, it has been, so we have had a few that have shut down in Wisconsin that the agency had, that the Department of Natural Resources had and it is, so far they have beenand it switched a little bit.

A lot of folks have been going to containerized trees, which has taken more time and they feel like they are better stock to plant.

But having accessible and, again, affordable stock to replant is very important. So just like everything else, if you reduce the amount that is available and you reduce the places that you can get it from, transportation costs go up if you have to bring them farther, yes, it would definitely help if there was a better, more available nursery capacity.

Mr. PANETTA. Great. Great. Thank you, Mr. Schienebeck. My

time is up. Thank you, and I thank all the witnesses.

And, Madam Chair, thank you. I yield back. Excellent job, Abby. Thank you.

The CHAIR. Thank you very much. The chair now recognizes Mr.

Johnson from South Dakota.

Mr. Johnson. Thank you, Madam Chair. My questions will be for Mr. Imbergamo and, obviously, there are lots of regional differences. But, we want to be concerned anytime you have a forest inventory that is higher than the mill capacity. We see that in a lot of places and, frankly, in the Black Hills of South Dakota we are concerned about getting there.

We want to do what we can to protect that mill capacity because we know that that processing capacity is incredibly important from a healthy forest perspective, from a safe forest perspective, and also just making sure we are in a position to develop innovative

wood products. We have to have that capacity out there.

So this really builds, sir, on some of the questions my colleagues have asked. But what should we be doing in places like the Black Hills of South Dakota to make sure that we are providing the predictability and the certainty that that industry needs to make the long-term investments that are going to keep them around because we want that capacity 10 and 20 and 30 years from now because we want healthy forests 10 and 20 and 30 years from now?

Mr. IMBERGAMO. Yes. Thanks for the question.

I guess the first step is not to have a sudden and drastic decline in a Timber Sale Program that has really done a good job of keeping the Black Hills from being entirely damaged or destroyed by the mountain pine beetle.

They had a significant mountain pine beetle outbreak. The presence of those three mills on that forest helped the Forest Service limit its spread and they helped capture that value and they put that carbon into long-lasting wood products while providing jobs in small communities. I don't need to tell you. You know these communities.

The northern half of the Black Hills is overstocked and really needs both pre-commercial and commercial thinning, and in many cases, it is like a lot of forests in the West. Before you can say if we prescribe burn, you have to reduce the stand density.

And, right now that forest seems to have backed itself into a very bad position where it is unclear how much timber they are going

to be able to get out in the next 2 years.

And if that further compromises the wood value chain there, the danger of South Dakota becoming somewhat like Mr. O'Halleran's district where you have a substantial ponderosa pine forest and just no ability to get the management done is very, very real and very immediate.

Certainly, financial support to the agency to conduct NEPA. But, some clear direction to use some of the authorities, again, that this Committee was the author of to get projects through the pipeline and out as timber sales as quickly as possible is what is going to enable you to manage that northern half of the Hills and avoid a repeat of the pine beetle outbreak that happened on the southern side of the Hills.

Mr. Johnson. And so we want to make sure that they get the proper staffing needed to conduct these sales, right?

Mr. Imbergamo. Right.

Mr. JOHNSON. I mean, is there a role for expanded CE authority? I mean, the last farm bill did a lot on that front, but is there room

for improvement?

Mr. Imbergamo. Sure. I mean, the 3,000 acre CEs that the farm bill created in 2014 and then expanded their use to some other uses in 2018 is a proven method of getting things done. The question is, is it equal to the challenge that we are seeing—is 3,000 acres enough.

And, I think that we are seeing, again, in a lot of cases that it is not enough. It is not enough to get substantial projects that will keep the logging infrastructure working and feed the mills.

And, again, these things do not apply in the 50 percent of the National Forest System that is in either wilderness or roadless areas. This is not about opening acres that are not available for management in current forest plans.

This is about managing the portion of the landscape that we are

supposed to be managing.
Mr. JOHNSON. Do we—I mean, in the Black Hills—and I understand. I mean, the scientists, they want to have a good data-driven process and we want them to have a good data-driven process.

I have, at times, had concerns that when they look at the inventory they are only looking at areas that have been historically logged, and I wonder if we could be more innovative in putting roads to some places that could be logged that are overstocked. Am I on the right track there?

Mr. IMBERGAMO. I think you are. As I understand it, the general technical report you are referring to only looked at a subset of

about 700,000 acres on a 1.2 million acre National Forest.

And, again, they are—that I believe that is just the suited base, which is—in every National Forest they are supposed to identify acres that are suited for timber production. It doesn't mean that harvest is not allowed on other acres and there are other acres

where—that are or should be open to management.

My understanding is the Hills is one of the best roaded forest. Has a very extensive road network. So, getting to those other acres and making sure that the assumptions behind the GTR are correct is critically important, and that the existence of that report can't lead to a rapid changing direction on the forest without causing a lot of havoc locally.

Mr. JOHNSON. Thank you very much, sir.

And thank you for your indulgence, Madam Chair.

The CHAIR. Thank you very much, Mr. Johnson.

I now recognize myself for 5 minutes.

And to our witnesses, thank you for a wonderful discussion. I was interested in listening to my colleagues ask their questions first because I really wanted to see where this conversation would

It has been informative, instructive, and I think so very interesting, and as follow-up to some of what has already been asked,

I would like to begin with a question for Mr. Macdonald.

So as we look forward to the opportunities that exist for wood products to play a significant role in the future of America's infrastructure, you mentioned briefly in response to Ms. Pingree some of what has happened in your native Canada in terms of incentives or legislation that has helped pave the way for innovative wood products.

But I was wondering if you could sort of take us back a step. You mentioned concrete. You mentioned cross-laminated timber. Could you speak, just very briefly, to the structural and climate benefits of using these products and why they are of such great value?

Mr. Macdonald. Yes. Thank you, Madam Chair, for the gues-

The Committee is very well informed on mass timber in general and some of the benefits of being able to sequester carbon for—in one with products like buildings, the ability to manufacture buildings with less embodied energy than other more energy-intensive materials like concrete and steel.

And rapid construction, there are, of course, economic benefits, too. But, and I think we are, there are direct links between creating markets for these kinds of wood products and keeping forests as forests.

The Chair. Yes.

Mr. MACDONALD. If you have robust demand for good products it

is the best way to ensure that forests stay as forests.

The CHAIR. And, Mr. Macdonald, and certainly, the concept of nanocellulose and innovations in concrete are something that is of great interest to me and something that I, frankly, talk about with my constituents when we look at where are some climate-friendly solutions that we can bring to the infrastructure investments that we are making in our country.

So that is why I asked the question because it is an important one for anyone at home watching the Conservation and Forestry Subcommittee hearing to have a bit more information and back-

ground on that.

And I would stop there and say from the perspectives of a sawmill operator or from the logging perspective, Mr. Schienebeck or Mrs. Dauzat, is there anything you would add about where you see or where you are hopeful about the innovative wood products and new technologies that continue to be studied by people like Mr. Macdonald at his university?

Mrs. DAUZAT. In the South, we have a very healthy byproducts market in Florida. Everybody is always surprised we do that.

But we have paper mills and other things and—but in Mississippi it is a struggle with byproducts and I know we have heard that repeated over and over. Alabama is okay. But anything that can come out and build that byproducts market so that the system can be whole—

The CHAIR. And, Mrs. Dauzat, can I—let me ask you a question. Are the byproducts market difficulties that you have had is that just not generating enough interest?

Is that the actual supply chain for the production of those by-products? Where are the challenges that you are seeing there?

Mrs. DAUZAT. Well, it is the markets for the byproducts. So in Florida, we have paper mills. You have WestRock in Panama City.

You have GD in several locations in Georgia and in Florida, and also International Paper. So we have a good market for our pulpwood, our chips. We also have a pellet mill down the road that also purchases byproducts.

In Mississippi the markets are just very limited, and what we are doing at our Brookhaven mill we are actually putting in a containerized dry shavings pellet plant where the pellets will be exported, and we will be buying our own dry shavings but we are also going to have a market for other people to sell their dry shavings to us.

So we are actively looking for ways to support the byproducts market in the locations where it is struggling.

The CHAIR. And, ultimately, is that an additional revenue stream for you?

Mrs. Dauzat. It is.

The CHAIR. Excellent. Excellent.

Well, I want to thank our witnesses. I want to abide my time, and I am going to yield back to myself and recognize Mrs. Miller of Illinois.

[No response.]

The CHAIR. And I am not seeing Mrs. Miller on the screen so I am going to go to Mr. Moore of Alabama.

Mr. MOORE. Thank you, Madam Chair, and I appreciate you

holding this hearing today.

First, let me say thanks to all our witnesses for testifying at the Subcommittee today. In Alabama, we have about 23 million acres of timberland, and that is large in a lot of states, if you know about the size of some of these states.

But, well, basically, Mrs. Dauzat, I want to ask you a question. I appreciate, by the way, Rex Lumber investing in the Second Congressional District. I have heard great things about the mill. I have been to a couple of them. I want to get up and see yours.

But I want to ask a specific question, if you don't mind. You outlined some obstacles to expanding your mills and facilities to heavy

and prolonged regulatory burdens.

Would you go into a little more detail on regulatory obstacles that stand in your way? And what can Congress do to remove the excessive red tape to help streamline practices at the Federal level to assist your industry?

Mrs. DAUZAT. Well, the permitting process always takes at minimum 4 to 6 months. In the South, we are lucky. I think we, generally, keep it into that 4 to 6 month range. But anything that would streamline that process, and we want to protect our water and air quality where we are, it is so precious to all of us.

But the process is onerous. It is expensive. It requires a lot of people gathering a lot of information, and just anything we could do to streamline that process would help mills get started up more quickly. Did that answer your—and thank you, and you are wel-

come anytime at the mill as well.

[Laughter.]

Mr. Moore. Thank you so much. So do you think there is some probably—are there mills on the drawing board right now in the area maybe that are coming in—they will be coming into production anytime soon provided we can help you get the regulatory restrictions out of the way?

Mrs. Dauzat. Yes. Mississippi has three Greenville mills announced. There is another one announced in Louisiana. These are all in the last, I would say, year, year and a half. There are additional mills that are under construction right now. So we do have a lot of supply coming online.

Mr. MOORE. Well, that is fantastic. Hopefully, we can find labor. I have been critical of sending mail, checks to everybody's mailboxes. I hate it when government dollars compete against the pri-

vate-sector dollars for the labor force.

So anyway, hopefully some of that, like you said earlier, our states are starting to clear that up. So with any luck, we will get people back to work.

But thank you, and we will set something up. I look forward to coming to the mill and seeing it sometime. Thank you.

And, Madam Chair, with that I will yield back.

Mrs. DAUZAT. Thank you.

The CHAIR. I appreciate that efficiency, Mr. Moore.

Next, I recognize Mr. Kelly of Mississippi.

[No response.]

The CHAIR. No. Mr. Kelly of Mississippi is not present at this time. And I now see Ms. Schrier has returned.

So, Ms. Schrier, we are going to recognize you for 5 minutes.

Thank you.

Ms. Schrier. Thank you, Madam Chair, and I want to thank you for holding this hearing. This is such a vital issue from my district, and I have a ton to talk and ask about.

So I will be submitting more questions to the record about uses of wood products, the jobs the timber industry creates, and small-diameter mills.

Last year, a report from the Washington Department of Natural Resources identified 3 million acres of forestlands in my home State of Washington in need of restoration. A significant percentage of those acres are in central Washington, including about 700,000 acres in the Okanogan-Wenatchee National Forest in my district.

A major challenge for removing fuels from overcrowded National Forest lands is that central Washington has lost the sawmill and contractor infrastructure needed to make forest health treatments feasible, both economically and ecologically.

And as a result, public and private land owners must truck saw logs over 150 miles away from central Washington to the nearest mills at high costs that dramatically reduce revenue. It just doesn't

Developing a small-diameter sawmill in Chelan County presents a unique opportunity to create family-wage jobs, make our forests more resilient to catastrophic wildfire, support the wood products industry, and reduce housing prices.

Since approximately 85 percent of Chelan County is National Forest lands, a mill would generate revenue for landowners as well as for the Okanogan-Wenatchee Forest to pay for critical forest restoration needs including the reduction of fire risk.

There is substantial momentum and desire locally and regionally to invest in this work. The effort to bring a sawmill to central Washington has the support of the community, local, state, and Federal Government officials as well as environmental groups.

And not only will this effort make forest restoration more cost effective but it will also become profitable, benefiting state, Tribal, and private lands that are currently too far from markets to be economically viable.

Through active restoration and thinning we can make our forests more resilient to drought, climate change, and pestilence, in addition to mechanical thinning, makes prescribed burns more effective and renders forests less vulnerable.

So I have a question for Mrs. Dauzat. In your experience, what are the impediments to the development of new lumber mills on or near Federal lands and how can Congress and this Committee help overcome those obstacles?

Mrs. DAUZAT. Well, we have a very personal story with the National Forest.

In the South, we have a large majority of private landowners, but when my dad and grandfather sold the mill in Graceville and moved to Crystal, Florida, which is right by the Apalachicola National Forest, we were guaranteed that we would have a supply of timber for the life of the mill.

So we are in 2021. That was in 1981. They did not honor that promise, and so we have been struggling with timber out of the Apalachicola National Forest since the late 1990s, early 2000.

With Hurricane Michael in 2018, our timber base was decimated around the mill. If you look at the path of where Bristol is, it, basically, wrapped around the mill.

It was necessary—it is required that the National Forests step up and sell more timber out of the Apalachicola, which they have

and I am very grateful for that.

But it is the long-term solution for us to bridge the gap in that very rural community so land owners can get their land cleaned up, replanted, and that is starting to happen as the funds have started flowing out over the last year for cleanup and replanting.

So the impediment is you can't—you just can't depend on the

supply, I guess, to put it simply.

Ms. Schrier. It sounds like increasing the requirement to harvest could guarantee that supply and make a mill financially viable. Make it a sure thing.

Mrs. Dauzat. Correct.

Ms. Schrier. Okay. Thank you. I also wanted to highlight an example from my district of what can be done with wood byproducts. There is a company called Forest Concepts. It is a wood product company based in Auburn, Washington.

I had the opportunity to go visit them and learn about some of the innovative ways they use wood products. One example is wood straw, which they can provide in bales, like bales of hay, but this

is wood.

It is their signature product, and after a fire this innovative product can be used to prevent landslides and to promote the growth of new vegetation, and support for the wood products industry would be tremendous, both with small-diameter mills and also with looking at these kind of unique products that can really help us get over forest fires afterwards. It helps everyone.

So I look forward to working with the Administration, Forest Service, and my colleagues on this Committee to support the wood

products industry.

And I yield back. Thank you. The CHAIR. Thank you very much.

I would like to thank our witnesses for being with us today. Ranking Member LaMalfa and I would each like to ask an additional question as we have at this point recognized all of the other

Members of the Committee.

So I am going to yield to Mr. LaMalfa for his 5 minutes of questions.

Mr. LAMALFA. Thank you again. I appreciate, again, the line of questions. Ms. Schrier's questions are just right up the alley I was looking at, too.

For Mrs. Dauzat, now, could we elaborate a little bit more, we have opportunities to use this forest biomass in not just maybe the

typical way of timber, lumber products, and paper products but you were talking about the needs for the facilities to processes this and we were talking about logging and long trucking distances, as Ms. Schrier was saying. The transportation becomes a real impediment as well.

So can you elaborate a little bit more on the possibilities of having more smaller mills, or in my area where so much is on fire right now we are going to have so much material either left behind from a logging operation, the slash and such, or this salvaged material?

We need to be converting this into electrical power. We need to make power plants. How practical would it be to have more smaller power plants spread around so that we are having the zone from which you would truck from be a little more closer, a little more reasonable?

I have at least one plant in my district that runs into issues with the proximity towards the material, the forest material that would be used in the plant for making electricity.

Could you elaborate a little bit on that, what we need to be focusing on and can we have more plants maybe a little smaller in size to meet a better regional need?

Mrs. DAUZAT. Well, in the sawmill smaller is not better, usually. Usually, higher volume drives down your manufacturing costs and allows you to be profitable—hopefully, profitable in most scenarios.

2008, 2009, 2010, and 2011 were not a time period where—it was difficult time period. As far as you know, I will relate it to my experience after Hurricane Michael because it is a lot of timber left on the ground.

And so what our mills did is went into salvage mode, and WestRock and Georgia Pacific, all the paper mills, Enviva pellet mill, we all switched to just trying to salvage the timber on the ground.

Now, in the South, we have a life for—a log about 9 months in our weather, unless you can get them underwater, which is what we were trying frantically to do.

We did not have that infrastructure in place, and it is called a wet log yard and, basically, you stack the logs under water and you can store them from anywhere 18 months to 2 years, depending on size of the log.

So we were not able to do that. We do have that infrastructure in place now should another hurricane come in and destroy more timber, which that would be a catastrophic event for us at this point.

But I do think we all need to do more planning on what can be rapid response to these devastating events. I don't know if western logs can go under a wet log yard and be stored for a longer period.

Your climate is much different from ours, where we are hot and humid most of the summer and our lumber starts to—our logs start decaying pretty quickly if they are not preserved properly.

But that is where we are—our solution has fallen is with these wet log yards where we can store a decent amount of timber underwater to salvage them. Mr. LAMALFA. You expressed frustration with the permitting process for any of these milling type facilities, and so do you think we would have a little better luck with a right size one?

You have to have your economies-of-scale. That makes perfect

sense on a size of a mill.

But, is there a possibility the permitting, licensing, all those things could go easier if we are—we are spreading them out a little bit more and then sizing them a little more regionally?

Mrs. DAUZAT. Yes, and just the time. If you are going to build something new, it is just the time-frame of building something new as well that hinders when you are trying to respond to a serious

event.

Mr. LAMALFA. What should Congress be doing to help this? Because we need the facilities. We need somebody—it isn't lack of material.

It is not lack of wood product and it is not lack of willing people to fall it and haul it. But what do you—what do we—could really

put our finger on here to help----

Mrs. DAUZAT. If we could focus on the General Services Administration and DOD utilizing mass timber. Just anything that utilizes wood in every form, and then some of these other side industries follow.

But I think that is what Congress can do is support that idea of really getting mass timber out there in the market.

Mr. LAMALFA. Thank you. Madam Chair, I yield back.

The CHAIR. Thank you very much, Mr. LaMalfa. I now recognize

myself for 5 minutes for additional questions.

This conversation, again, has just been fascinating and I really thank our witnesses for your time here. I think we have heard you all loud and clear, and Mr. Macdonald, and, I believe, our other witnesses spoke to the need to have end-users for these technologies.

Mrs. Dauzat, I believe you said it is important to invest in the research, but we do need the end-users. So I hear you loud and clear on the references to DOD and GSA in places where we can incentivize or prioritize investments in our own domestic product within the wood product industry. And I believe, Mr. Macdonald, you spoke of that and included it in your written testimony as well.

I would like to ask a question related to forest management and additional wood products that, Mr. Macdonald, some of it is in your written testimony and you spoke to some of it in your opening statement, mentioning the innovative products and projects, excuse me, in Oregon where you are using underutilized species in tackling housing affordability crisis as one piece. But you also talk about how forest lands and the restoration fiber can reduce fire risks.

And so could you speak to that a bit more as we see fires raging

on the West Coast, we talk about forest management?

What opportunity exists in our forests that could simultaneously help us mitigate and address or at least reduce to some degree the risk of large-scale forest fires but also create new revenue streams, new industries, and, frankly, good products from a sustainability, resiliency, and climate change perspective?

Mr. MACDONALD. Thank you for the question. I think putting together a lot of what we have talked about already today. There are enormous opportunities to use restoration timber. We still need to work on, as I say, the logistics, the economics of getting that to a

processing facility.

But there is a large project being put together in Oregon right now, and there is a lot of moving pieces but, essentially, it is to take restoration fiber and to process that in high volumes and that low unit cost to create kit-of-parts housing that I kind of alluded to earlier where we are really driving up the cost of each unit of housing by automation, using automation in the factory that would assemble these modules or these prefabricated systems.

So that by doing that, we kind of close the loop of reducing fire risk, using this fiber for profitable use, and creating jobs in rural communities in the mass timber facilities and the sawmills, and also creating urban jobs in prefabrication factory, and designers

and architects as well.

The CHAIR. Thank you very much.

Mr. Imbergamo, you had mentioned in your statement the differences, I believe it was, between the utilization of post-disaster materials as a result of hurricanes and natural disasters in the South versus what we are seeing in areas ravaged by forest fires.

Could you speak to that a bit more and where there is areas of opportunity that we could potentially be seizing on, and what some of the hindrances might be for that real difference that we see between the two regions?

Mr. Imbergamo. Sure. Yes.

I mean, as Caroline said, in the humid and warm South logs don't last very long. We saw some of my member companies in the central Rockies were conducting salvage operations 3 or 4 or even 5 years after we had seen mortality from pine beetles. In arid climates, the wood doesn't decay quite as fast.

Fire salvage, it kind of depends on where you are. The ability to capture value can extend for up to 2, maybe 3 years. The thing about salvage is that it is, again, I believe we need to do more of it. Again, this is not opening areas that are not currently available to harvest. But we do need to do more of it on the general forest

But again, if—the trick to attracting investment for—as a forest land base is to be a reliable supplier of wood fiber. And, as Caroline said, we need the end-use market. We also need some relative cer-

tainty of supply.

And what we have seen with the Forest Service over the years in quite a number of places is they have tried to attract new investment to take advantage of the—to get the thinning down to prevent the need to do salvage and then they failed to deliver the logs that were needed to keep those investments in place.

Some of my California companies, for instance, invested in small log lines when the Forest Service said they were going to move away from larger-diameter material, and then those forests tried to get sales up and they weren't able to get them up, and those investments, which are substantial, wound up being just stranded assets and had to be closed and broken up.

So reliably providing a fiber supply from the general forest landscape is what is going to enable you to do the thinning to reduce the fire danger and have to mill capacity there to get the salvage done while the wood is still viable.

The CHAIR. Thank you very much.

Before we adjourn today, I would like to invite the Ranking

Member to share any closing comments that he may have.

Mr. LAMALFA. Thank you again, Madam Chair, for the hearing and for this opportunity to talk about something that has been a bit of a mystery for people on lumber, wood supply, and how that ties into forest management and the fire season that we can't ignore either.

As far as solutions here, there are a lot of people on this panel that could be very helpful for us long-term, and in the industry to

help us point in the right direction.

We really just have to focus on getting out of our own tracks and having an atmosphere where the type of harvest we need and the type of processing, a streamlined process to get these products to be produced domestically, whatever it takes, and I am so focused, in our western states and California, where I am from, that the overload of wood inventory we have we have to accelerate rapidly if we don't want to have the fire situation we have year after year.

And so everything has to be on the table. We have to have a permit process that gets a lot more salvage wood out a lot sooner so

we can recover the value of that, and the green harvest.

And we are not talking about—we are not talking about clear cutting every tree, and that is the fear that is often struck in media or in the environmental world there. That is not what we are after.

It is not about big timber and big profit and all that. There is a responsible way to manage these lands that does take timber, but

it leaves it behind, too. It leaves good habitat behind.

We have to have everything on the table as far as the privatesector helping with our Federal lands and even things on the table like being able to export more. Whether it is a finished product or saw logs, we have a lot of catching up to do.

So if we are ever going to catch up, we have to have open mind

on how all these things can be part of the solution.

And so I look forward to this conversation, going forward, and, again, appreciate Madam Chair's partnership on this, and I yield back.

The CHAIR. Thank you very much, Mr. LaMalfa.

I would like to thank our witnesses for their testimony today. It has been incredibly helpful to hear firsthand how you all have managed the challenges of the past year, how you view the challenges of the past year and a half, and how you view the future and potential areas for us to increase our resiliency, assist the industry, and ensure that it can thrive long term.

I think the conversation has moved to various different topics throughout the questions. Certainly, the challenges that we see with, perhaps, insufficient number of sawmills, some of the chal-

lenges that sawmill operators have faced.

Mrs. Dauzat, when you mentioned the 36 closures of sawmills across the South that is, certainly, something that I have heard about from members of the Virginia's Loggers Association, the chal-

lenges that that creates for the larger supply chain.

And Mr. Macdonald's comments and in his written testimony there is discussion of rail infrastructure investments that we could be making to help mitigate some of the supply chain constraints that we see in the lumber industry.

And I think that is an important element of the conversation and, certainly, something that I think we are all taking back as we

think through additional legislation in the future.

We have heard you all loud and clear in the ways that we can play a role in helping to inspire, create, and normalize the industry of innovative wood products and byproducts related to the timber industry and, certainly, the job opportunities that exist but the need for workforce training there.

We are at a critical juncture. We have the ability to apply some of the lessons that we have learned from the pandemic the past year and a half, but also ensure that the steps we are taking forward as a nation as we consider investments in infrastructure and other Federal investments and decisions are informed by the research, the development, and the future of the timber industry.

We have the opportunity to strengthen the wood products industry as Congress considers our funding choices and our decisions related to infrastructure, how we can be climate-smart on these areas as well, and I do look forward to working with all of you as well as Ranking Member LaMalfa and my colleagues from the Subcommittee into the future.

Again, I thank you for your time, for all that you have provided to this important conversation and all of the work that you do in

this industry.

Under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from witnesses to any question posed by a Member.

This hearing of the Subcommittee on Conservation and Forestry

is now adjourned.

[Whereupon, at 12:02 p.m., the Subcommittee was adjourned.] [Material submitted for inclusion in the record follows:]

SUBMITTED STATEMENT BY HON. ABIGAIL DAVIS SPANBERGER, A REPRESENTATIVE IN Congress from Virginia; on Behalf of National Lumber and Building Material Dealers Association

The National Lumber and Building Material Dealers Association (NLBMDA) would like to thank the House Committee on Agriculture's Subcommittee on Conservation and Forestry for the opportunity to provide written comments regarding the hearing titled, "The U.S. Wood Products Industry: Facilitating the Post COVID—

19 Recovery" on July 21, 2021.

NLBMDA with its state and regional association partners represent over 6,000 building material retail locations nationwide who operate single and multiple lumber yards and component plants serving homebuilders, subcontractors, general contractors, and consumers in the new construction, repair and remodeling of residential and light commercial structures. The majority of NLBMDA members are small, family-owned lumber and building material (LBM) operations, in many instances providing lumber products and building material in the same communities for generations.

Like many small businesses, lumber and building material dealers were deeply impacted by the economic downturn caused by the COVID-19 pandemic in 2020 and subsequent supply chain disruptions that are still affecting our industry today. We write today to highlight solutions that the House Committee on Agriculture and Congress should consider as you examine concerns involving the wood product supply chain and forest product industry. NLBMDA believes these solutions will strengthen the wood product supply chain moving forward and provide necessary relief to businesses in our industry as they continue to recover from the COVID-19 pandemic.

H.R. 4302—Active Forest Management, Wildfire Prevention and Community **Protection Act**

Sustaining an efficient wood supply chain process is crucial for the viability of the forest products industry and the overall health of public and private forestlands in the United States. NLBMDA supports legislation recently introduced in the House of Representatives and referred to the House Committee on Agriculture which would take proactive and meaningful actions to improve the health of our nation's forests. NLBMDA calls on Congress to pass H.R. 4302, the Active Forest Management Wildfur Preparation and Computing Presentation Act, which would support applied to the process. ment, Wildfire Prevention and Community Protection Act, which would authorize active management decisions for targeted forestry management actions, remove bark beetle-killed trees, protect property, stop frivolous litigation, provide a local source of revenue for counties, and prevent catastrophic wildfires.

As of the end of last month, over 40 large wildfires were burning more than 660,000 acres throughout the country, preventing travel, hindering business, causing property damage, and creating poor air quality for citizens. In addition, the Western U.S. is still afflicted by a bark beetle epidemic that attacks healthy trees and creates more fuel for these wildfires. The bark beetle epidemic currently affects all eight National Forests in the Rocky Mountain Region. Bark beetles have destroyed more than 45 million acres of forest including 15 million acres of Forest Service land.

The Active Forest Management, Wildfire Prevention and Community Protection Act would tackle these challenges head on and implement bipartisan reforms to support the health of our forests and strengthen the wood product supply chain. Importantly, the bill is fully paid for and will bring in billions to the U.S. Treasury.

Softwood Lumber Agreement

NLBMDA supports the renewal of a Softwood Lumber Agreement (SLA) with Canada and believes a resolution to the softwood lumber dispute will contribute much needed certainty in the lumber market moving forward. The most recent SLA expired on October 12, 2015 and has not been renewed. Under the previous agreement, Canadian softwood lumber shipped to the United States was subject to export charges and quota limitations when the price of U.S. softwood products fell below a certain level. From 2006–2015, this agreement helped foster a period of stability in the U.S. lumber market and strengthened our relationship with a critical North American trade partner.

Since the agreement's expiration in 2015, the U.S. and Canada have been involved in a contentious trade dispute that has resulted in the U.S. placing both countervailing duties and antidumping duties on Canadian softwood lumber im-

 $^{{}^1}https://boebert.house.gov/media/press-releases/rep-boebert-introduces-comprehensive-bill-prevent-catastrophic-wildfires.\\ \textbf{Editor's note:} the referenced press release is retained in Committee file.$

ports. These duties, while not the sole cause, have contributed to price volatility for U.S. small businesses and consumers that rely on a supplemental steady supply of softwood lumber from Canada when domestic production cannot meet demand.

The impact of these duties is particularly urgent as our economy experiences lumber price volatility and supply shortages which threatens the availability of affordable housing for millions of Americans. This volatility, when coupled with other factors, has caused the price of an average new single-family home to increase by more than \$30,000.2

While the SLA is not the ultimate solution to price volatility and supply chain disruptions, reenactment of the agreement with beneficial terms for both domestic producers and consumers down the supply chain will contribute to needed stability in the marketplace. Due to these pressing concerns, NLBMDA believes that Members of the House Committee on Agriculture should urge the Biden Administration to re-enter SLA negotiations with Canada and continue to follow-up with the Administration as necessary in the coming months.

Labor Shortages and Workforce Development

Labor shortages continue to pose a very real risk to the long-term health of the lumber and building material dealer industry and wood product supply chain. The impacts of this shortage are affecting stakeholders ranging from small, family-owned businesses to large corporations. The lack of labor throughout the industry could have dire implications for the entire supply chain and have a negative impact on meeting the nation's demand for wood and paper products.

NLBMDA calls on Congress to support the following measures to help improve labor and workforce development challenges within wood product supply chain:

- Oppose the extension of COVID-19 supplemental unemployment benefits. While LBM dealers support reasonable policies to aid workers in times of economic need, NLBMDA opposes any further extension of the COVID-19 supplemental unemployment insurance (UI) program which has been in place since the start of the pandemic. According to the Bureau of Labor Statistics, the U.S. economy continues to see a record number of job openings 3 and NLBMDA members have personally experienced the impact that these supplemental benefits have had on employers' ability to find and hire qualified workers. Due to the record number of job vacancies combined with increased vaccination rates, NLBMDA believes it is appropriate for Congress to wind down the supplemental UI program and reject any further extensions.
- Pass the Future Logging Careers Act (H.R. 2727/S. 1262) to help facilitate adequate successional planning for many multi-generational family-owned businesses common in the forest products supply chain.
- Pass the DRIVE Safe Act (H.R. 1745/S. 659) which would establish an apprenticeship program that would allow for the legal operation of a commercial motor vehicle in interstate commerce by CDL holders under the age of 21.
- · Pass the Safe Routes Act (H.R. 2213) which would allow logging trucks that meet state-determined legal requirements to travel up to 150 air miles on the Federal Interstate Highway System.
- Pass the Promoting Women in Trucking Workforce Act (H.R. 1341) which would require the Department of Transportation to establish an advisory board charged with identifying barriers to entry for women in the trucking industry and help identify and establish training and mentorship programs for women.
- Support technical and vocational schools and apprenticeship efforts in order to address the workforce skills gap.

Thank you for the opportunity to submit comments on these critical issues impacting the lumber and building material dealer industry and wood product supply chain. As the national voice of lumber and building material dealers across the U.S., NLBMDA looks forward to working with your Committee to address these challenges in a manner that strengthens the LBM industry and U.S. economy in the future.

For any questions, please contact NLBMDA's Director of Government Affairs Kevin McKenney at [Redacted] or [Redacted].

² https://www.nahb.org/news-and-economics/housing-economics/national-statistics/framing-

³ https://www.bls.gov/news.release/jolts.nr0.htm. **Editor's note:** the referenced news release is retained in Committee file.

Supplementary Material Submitted by Iain Macdonald, Director, TallWood Design Institute, Oregon State University

Mr. O'HALLERAN. Thank you, and is there more targeted support we can provide, we in the government or others, in the area to make a better impact?

Mr. MACDONALD. Yes. The Wood Innovations Program and programs like that have been very, very useful to a large range of projects—not just research, but

There is a great example in John Day, Oregon, of the community working hand-in-hand with a sawmill that was—that was experiencing a—basically, they ran out of fiber, traditional fiber, and the community worked with them, environmentalists worked with them, and came to an understanding that it is better to use this wood to thin the forest to save the forest, basically, and protect it than to try to oppose the use of it.

And so it resulted in the sawmill being able to remain open and continue to employ people in the community and for this restoration work to happen in a

commercially viable way.

So, the continuation and the continued funding for the Wood Innovations Program would be very, very useful for that kind of thing. And if there is ways to provide tax incentives to those kinds of projects where you are retooling, for example, a dormant sawmill, trying to bring it back online to

As I mentioned in my oral testimony the continuing support of the Subcommittee for research on timber construction through the USDA Wood Innovations Program and the Agricultural Research Service is extremely valuable, as researchers and the private-sector work to develop even more sustainable and cost-effective low-carbon buildings. Creating incentives for the use of low carbon materials in buildings funded by Federal, state, or local governments would also help to accelerate adoption of green construction. By stimulating domestic demand for products like mass timber, we can divert logs that might otherwise be exported offshore to domestic processing, thereby growing our manufacturing base and maximize the socio-economic benefits provided by each tree harvested.

SUBMITTED QUESTIONS

Response from Caroline Dauzat, Co-Owner, Rex Lumber

Questions Submitted by Hon. Kim Schrier, a Representative in Congress from Washington

Question 1. Mrs. Dauzat, in your experience what are the impediments to the development of new lumber mills on or near Federal lands? How can Congress and the Agriculture Committee overcome those obstacles? What benefits can small mills

bring to forests, local communities, and rural economies?

Answer. The Rex Lumber mill located in Bristol, Florida exists because my father was assured a steady supply of timber from the Apalachicola National Forest in the early 1980s. Instead, it has been an ongoing struggle to access that timber due to a strenuous regulatory process. Primarily, the National Forest staff must go through extensive environmental reviews to meet NEPA requirements that can take months or years to complete before actually bringing a timber sale to market. As a company, and an industry, we support sustainable forest management and strong best management practices to reduce negative environmental impacts. However, the U.S. Forest Service should put forth greater efforts to streamline and expedite the process. Recently, we have had a better experience getting timber from the Apalachicola National Forest to supply the mill in Bristol, which has been critical to keeping the mill, and the jobs it supports, running since Hurricane Michael devastated much of the timber basket in the Bristol area. If this trend reverts to a more limited timber supply from the Federal forest, the mill will likely not be able to survive. To increase the presence of mills near Federal lands, Congress and the Forest Service must work to streamline the process for buying trees. Sawmills are capital intensive, with new mills costing \$100-\$200 million depending on the size. If a strong timber supply is not readily available, businesses are unlikely to make the necessary investment.

The economic benefits of sawmills in their local communities are quite large, with some reports citing four indirect jobs supported for every direct job in the mill. A typical sawmill in the Southeast employs 100–200 people, so the multiplier effect is substantial. When a mill is built near a Federal Forest and buys Federal timber, the revenue from the Forest Service Sales goes back to the local counties to support community government and schools. Additionally, sawmills present an environmental opportunity for trees that need to be removed from the forest to be utilized while making way for new trees to be grown in their place. Young trees absorb carbon from atmosphere quicker than older trees, and forest products used in long term applications such as construction lock that carbon up for the life of the building or other wood products.

Question 2. Mrs. Dauzat, your testimony mentions that we can reduce the likelihood of mill infrastructure collapse by encouraging increased market diversity for the forest products industry. Can you talk about some of the ways we can encourage increased market diversity?

Answer. Market diversification is critical to maintaining domestic lumber production capacity. We would like to see the Federal Government take the following actions to encourage diversification:

- Fully fund the U.S. Forest Products Lab to continue their crucial research and technology transfer efforts for new wood products while improving existing wood products.
- Support the Wood Innovation Grant program, which provides matching funds for selected proposals to utilize new or improved wood products technology.
- 3. Increase utilization of domestically produced innovative wood products by the General Services Administration and Department of Defense.
 - a. As the GSA's Green Building Advisory Committee looks to decrease the carbon footprint of the government's built environment, wood products, such as mass timber, should be taken into consideration. The GSA should look at the life cycle analysis of various building materials to meet carbon reduction goals.
 - b. DOD continues to face a construction backlog while also looking to reduce their carbon footprint and be more resilient to extreme weather events. Mass timber products, such as cross laminated timber (CLT), have been approved in the military's Unified Building Code since 2016, passed antiterrorism blast testing, and has been approved for up to 18 stories of construction in the 2021 International Building Code. To date, five CLT hotels have been completed on military bases around the country through the Privatized Army Lodging program. Due to the prefabricated characteristics of CLT, these projects have gone up 30% faster than similarly buildings made of other building materials while requiring much fewer on-site construction workers. The DOD should put forth a greater effort to use innovative building technologies, including mass timber, to meet environmental, budgetary, and building needs.

Response from Iain Macdonald, Director, TallWood Design Institute, Oregon State University

Question Submitted by Hon. Kim Schrier, a Representative in Congress from Washington

Question. Mr. Macdonald, in your testimony you mentioned that workforce training and development will be critical for the mass timber supply chain. I have also heard from stakeholders like the Cross Laminated Timber industry in my state about the need to bring more people into the wood products workforce. And I was excited to learn that Forest Concepts is partnering with Washington State University, Green River College, and the Auburn school district to create internships and apprenticeships to bring more workers into the wood products industry. In your experience, what are the wood products industry's workforce development needs? How can Congress support these efforts?

Answer. There are a broad range of needs that span the spectrum from woodlands to manufacturing. The forestry sector is experiencing a shortage of workers in occupations like harvesting, as older workers retire and young people choose other careers. We believe that implementing new harvesting technologies can partly address this, as 'upskilling' these occupations will be likely to make them more attractive. On the manufacturing side, the relatively new field of mass timber differs from the traditional lumber sector in that workers need to be conversant with a variety of digital tools, such as computer-aided-design software and CNC fabrication (CNC stands for computer-numerical control and refers to programmable manufacturing machines). Mass timber construction projects also commonly use Building Information Modeling (BIM) software, in which digital models of buildings are shared between architects, engineers, contractors and sub-trades. Our Institute, in collaboration with community colleges and school districts, is developing continuing education programs for workplace learners to provide opportunities to gain these skills.

Support to promote these career opportunities and extend this kind of training to new audiences such as BIPOC communities would be extremely valuable.

The U.S. construction sector is also facing an aging workforce and severe labor shortages in some regions. Building with mass timber is somewhat helpful in alleviating these problems, as more of the fabrication work is done in the factory and less on the construction site. A shift to a greater use of modular or panelized construction methods, in which components of buildings are pre-assembled in a factory and then joined together quickly onsite, is being seen as a further potential solution. The factory jobs offer a more comfortable work environment and more predictable schedules and commutes. In many cases, labor unions have also embraced this shift.

Oregon has assembled a coalition of public agencies and universities that will

shortly be submitting a proposal to the Economic Development Administration's Build Back Better Challenge. The focus will be to develop modular affordable housing solutions using mass timber that utilizes fiber from forest restoration. It is our hope that the 'virtuous cycle' created by the project—reducing wildfire risk, creating urban and rural manufacturing jobs and tackling the housing affordability crisis faced by many cities—will serve as a model that can be replicated in many other parts of the U.S.

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