OREGON FOREST & INDUSTRIES COUNCIL
SUSTAINABILITY. SCIENCE. INNOVATION. GROWTH.

The top five ways Law et al. 2018 got it wrong

1. The forest sector intentionally replants 40 million trees very year

Law et al. 2018 claims	Why it's wrong
Reforestation is not considered a carbon credit	• This is not a defensible assumption under Oregon law because replanting is required (Oregon Forest Practices Act) • The growth rate of trees is twice the rate of harvest in Oregon, which makes Oregon a carbon sink (USFS FIA 2017) • Old growth *stores* a lot of carbon, but young trees *actively sequester* large amounts of carbon (Bowyer 2011)

2. The greatest producers of timber in the world have the lowest rates of deforestation

Law et al. 2018 claims	Why it's wrong
Wood bioenergy production and wood in buildings is not well-studied and if you use more wood, then you forgo stock in forest sequestration	• Except for large buildings, this is not true; both are well-studied (Forestry for a Low Carbon Future 2016; Sathre & O'Connor 2010) • IPCC (2008) concluded, "the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber or energy from the forest, will generate the largest sustained mitigation benefit" (p. 543) • Growing markets for tree products triggers incentives to invest in increasing forest stocks and land cover, and improve forest health through management (Bowyer 2011; Miner et al 2014) • Other countries are currently employing more wood use as a climate mitigation strategy (Gustavsson et al 2006) • Prior to pulling out, the US strategy with the Paris Agreement was to promote use of the wood products, keep forests as forests, and improve stand management (U.S. Mid-Century Strategy for Deep Decarbonization 2016; USDA Building Blocks for Climate Smart Agriculture and Forestry)

3. Wildfires are a huge source of carbon emissions	
Law et al. 2018 claims	Why it's wrong
Biscuit Fire as an outlier for the fire modeling scenario	• Over time, westside fires are predicted to increase so discounting the Biscuit Fire as an outlier would be a better modeling technique for looking backwards, not for looking at fire modeling for the future (Stephens et al 2009) • Fire is the single largest disturbance in the U.S., responsible for 62% of forest loss (followed by disturbances due to livestock grazing (11%), to disease and insects (8%), timber harvest with no regeneration (4%) – luckily illegal in Oregon) (Sample 2017) • There has been a doubling of global burnable area in the last four decades (Jolly et al 2015)
4. Wood as a building material is carbon neutral	
Law et al. 2018 claims	Why it's wrong
Wood buildings need to be replaced in 30 years	• 50 percent of steel and concrete buildings were demolished around 50 years while wood structures typically lasted 100 years or more • All buildings have a material turnover timeline, regardless of the material used. • Citation for this claim comes from a news article that claims modern wooden buildings only last 30 years before they must be replaced, when in fact the news article says they last 'several decades' and a news article is not an appropriate citation for a published paper.
5. Wood buildings are part of the climate change solution	
Substitution benefits are "overestimated"	• Avoided emissions using wood in construction is a permanent benefit (Lippke et al 2011) • Less fossil fuels in manufacturing and construction (Sathre & O'Connor 2010) • Carbon is stored in wood products acting as another carbon pool (Sathre & O'Connor 2010) • Source material is regrown on the landscape, unlike alternative construction materials which are fossil fuel-intensive to manufacture, transport, and use during construction