



Chair Imeson, State forester Dougherty, and members of the Board, thank you for the opportunity to speak with you today. For the record, my name is Seth Barnes, and I'm the Director of Forest Policy at the Oregon Forest & Industries Council.

First, let me say that we strongly support moving forward with the development of a new FMP. There are so many concrete reasons to do this it's hard to know where to start. ODF has done a good job of elaborating on a few of these reasons, and there are certainly subcategories of each of these that could take up volumes and hours of discussion, including the clear and present need to rehabilitate thousands of acres of underproductive lands. Suffice it to say, a new FMP is long past due, and we whole-heartedly believe that a steady course under the current FMP will be catastrophic to this land based, the agency, the counties and sub-taxing districts, and the industry infrastructure that supports harvest from these lands. Furthermore, continuing this course will undoubtedly cost the state billions of dollars to reconcile decisions that are not aligned with the state's obligation to manage these lands for the benefit of the trust land counties.

Second, I would like for a moment to talk about Climate Change; and offer to you that forestry IS the solution to climate change. And furthermore, foresters have been addressing this topic long before anyone was paying much attention at all.

I would start by telling you about a person I worked closely with for many years as a field forester. Bruce was one of the most down to earth, loyal, and hard-working men I knew. He was a mentor and a friend. Getting out of the truck every morning, lacing up the weather worn boots as the cloud-covered sun came over the horizon and putting on the raingear was bordering on sacred for Bruce. Walking in the woods together for many years created a strong sense of both friendship and shared stewardship. For over 40 years Bruce was a fixture in those forests, it was like a second home. It's hard for me to even imagine those places without him there. His greatest pride was tending the young forests and watching them grow- it always made me smile to see the pride he had for sections of the forest that he had helped established, like a father beaming as he looked out over his children. Whether it was designing the right harvest system, finding a solution to a particularly tricky stretch of road or stream crossing, or diagnosing diseased ridden or damaged portions of a forest and prescribing the treatment to nurse the land and the forest back to health, this was a calling for Bruce. He was a forester in the truest sense of the word. Stewardship to Bruce was not a fancy buzzword, or something he wrote in emails or bumper stickers, it was just simply what he embodied, it was in the heart and soul of who he was.

Bruce is not alone in his approach to his life's calling. I've literally had the opportunity to interact with hundreds of foresters in my career and one of the common threads that holds the forestry community together is a strong sense of stewardship. At the heart of forestry is the science and art of understanding, managing, and caring for forests and the multitude of resources that flow from them over time. The first forester in the united states, Gifford Pinchot was famous for saying "Conservation means the wise use of the earth and its resource for the lasting good of men."

A brief overview of history shows myriad of situations where this ethic has borne out:

- After the deadly fires of 1910, many foresters for the first time, began to study and practice, not only fire suppression, but fuels treatments to help keep fires small and manageable. That practice, the lessons learned, experiments deployed, and further practice continues today.
- Later, as fires ravaged the Oregon Coast Range between 1933 and 1951, burning approximately 350,000 acres of older forests in what came to be known as the Tillamook Burn, foresters began to experiment with and learn from the practice of reforestation.
 - As professional foresters learned from these practices, reforestation became more common, and techniques and growing stock improved. Foresters began to study microbial interactions, forest soils, seeds and seedlings, nursery efficiency and effectiveness, etc. All with a focus 50 to 100 years into the future and beyond.
- In the 1970's land use became an emerging concern as populations continued expanding into rural fringes. Again, professional foresters participated in the conversation and argued for the protection of forest lands from the encroachment of society, recognizing the abundant benefits that come from forests. Once again, the focus was 50 to 100 years into the future and beyond.
- As emerging science shined a light on stream and wetland ecology, as well as fish and wildlife species, stream buffers and leave trees entered the conversation, leading to the adoption of practices aimed at maintaining water quality and wildlife populations. All aimed for forests 50 to 100 years into the future and beyond.

You probably won't find the word "climate change" in any of those studies or historical reviews, but planning for the future in the context of a changing climate has always been part of forestry. Practicing forestry in the present absolutely involves a recognition and planning for the forest of the future. No single group of professionals have spent more time studying, planning, and implementing practices for a future 50 to 100 years and beyond than foresters. Today we talk in terms of Climate Change and the need for Carbon Sequestration. As foresters, we've been playing in this sandbox since the beginning – because figuring out ways to grow healthy, productive forests and make increasingly more efficient use of the carbon-storing wood products that come from those forests is what we do best.

- Forest practices and investment in forest management lead to faster-growing trees during reforestation of a stand; these planted, fast-growing forests are more productive and sequester carbon at faster rates (Gonzalez-Benecke et al, 2011; Sathre and Gustavsson, 2012; Torssonen, 2015).
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- And while it's true that larger trees store a lot of carbon, younger trees sequester carbon dioxide at a faster rate (Gray, Whittier, and Harmon 2015). Larger trees reach a saturation point during their lives when growth rates are offset by mortality (Lippke et al 2011). Thus, a balanced approach to growing stands to maturity, followed by a cycle of harvest and effective reforestation offers the best carbon pump for atmospheric pollution.
- Managing forests to maintain healthy vigorous trees reduces the risk of massive wildfires. This is overwhelmingly bourn out as foresters have been allowed to tend forests on private lands, while their hands have been tied on federal ownerships; which account for 80% of acres burned over the last 10 years even with a 50/50 split in the accounting of total fire starts.
- Each 1,000-acre reduction in wildfire presents 10,600 tons of CO2 emissions in Eastern Oregon and 53,000 tons in Western Oregon. This equates to taking 2,000 to 9,000 cars off the road for an entire year.

- Salvage and reforestation after disturbances, such as fire, are vital to promoting carbon sequestration cycles. Fire accounts for 62% of the non-stocked forest land in the U.S. (Sample 2017).
- Furthermore, a healthy timber market means healthy working forests and avoiding conversion to other land uses. The lowest rates of deforestation and lowest forest emissions occur in places with the highest rates of industrial wood harvest and forest products output (Dovetail).
- Countless studies have concluded that, “Active forest management and the use of biomass in place of fossil fuels and alternative products most often have greater long-term carbon benefits than maintaining or increasing forest stocks alone (Pingoud et al. 2010; Gonzalez-Benecke et al, 2011; Malmshheimer et al 2011; Krug et al, 2012; Peckman et al, 2012; Poudel et al, 2012; Chen et al, 2014; Miner et al, 2014; Kilpelainen et al, 2016; Kurz et al, 2016; AiXin et al, 2017; Taeroe et al, 2017)” (Vance 2018).
- Milling infrastructure has advanced to create greater utilization and efficiency in fiber production, thus capturing and storing more carbon from every tree harvested.
- CLT and other advanced wood products make it possible to construct mid-rise and even high-rise structures almost entirely with wood, with less environmental impact than traditional building methods. Recent and future mass timber buildings are putting Oregon at the forefront of this architectural evolution. Just last month Freres Lumber Co. was named to Fast Company’s annual list of the World’s Most Innovative Companies for 2019 for the innovation and application of their invention of Mass Plywood Panels. These cutting-edge wood buildings are being built to last well into next century and beyond, all the while storing Oregon carbon.

So, while the rulebooks may not be riddled with the term “Climate Change”- forestry practices, including the Oregon Forest Practices Act and the common practices of Oregon’s State Forest Program are full of REAL tangible outcomes of a profession focused on leading the world in sustainability, conservation, and stewardship.

By the time Climate Change began to emerge as the topic du jour for columnists and policy makers, Bruce’s career had nearly reached its own culmination of mean annual increment, and he had officially hung up his raingear to dry for the last time. But his legacy of healthy, vigorous forests, and homes built with the wood he tended and harvested, will stand as testaments to his stewardship long after the debates have faded. You see, at the heart of forestry is the science and art of understanding, managing, and caring for forests and the multitude of resources that flow from them over time.

