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Reference: SOCAN support for SB1541

Senator Golden and members of the Senate Committee on Natural Resources and Wildfire

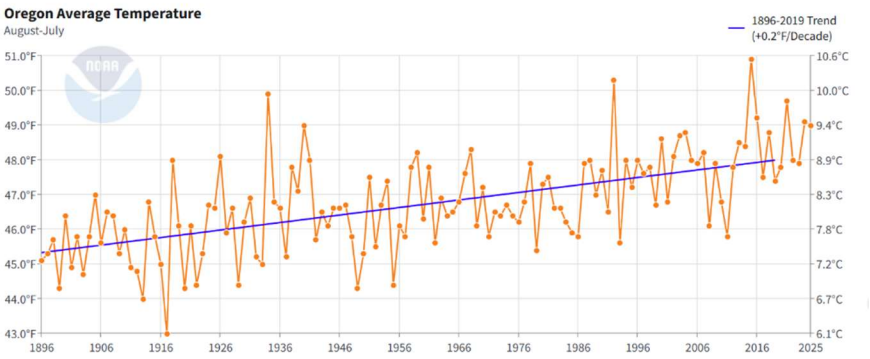

Figure 1. Temperature rise in Oregon since 1895, NOAA 2026a)

The temperature trend in Oregon has exhibited a clear rise over that last century (Figure 1, NOAA 2026a) increasing at the rate of 0.2°F per decade, but most notably since the 1980s.

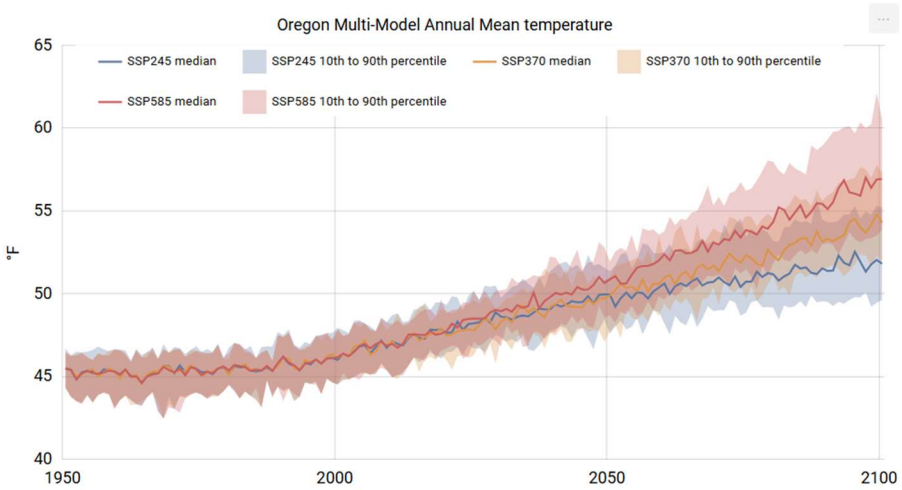

Figure 2. Temperature projection in Oregon to 2100, USGS 2026)

Figure 2 depicts the projected trajectory for temperature for Oregon according to three scenarios developed by the Intergovernmental Panel on Climate Change (USGS 2026). In this assessment, the red line depicts the Shared Socioeconomic Pathway 585 (SSP585) which initially was defined as the 'worst case scenario' but has frequently been dubbed the 'business as usual' scenario since we seem to be following it. The pink shading

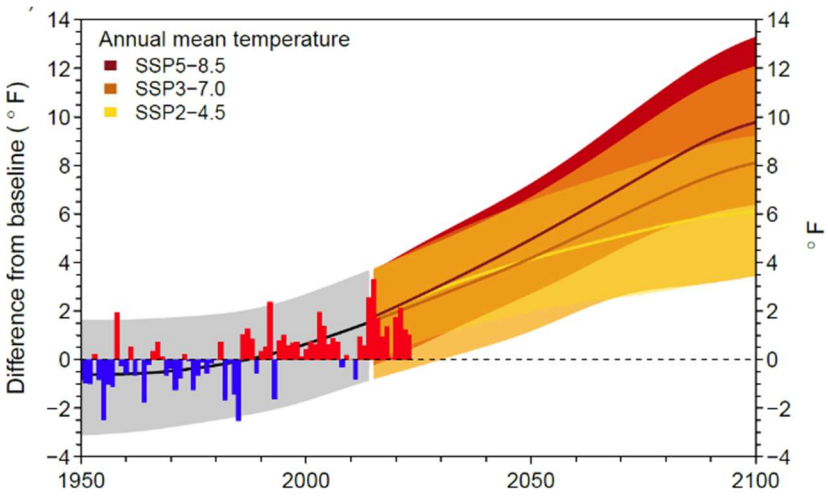

Figure 3. Temperature projection in Oregon to 2100, (Fleishman 2025)

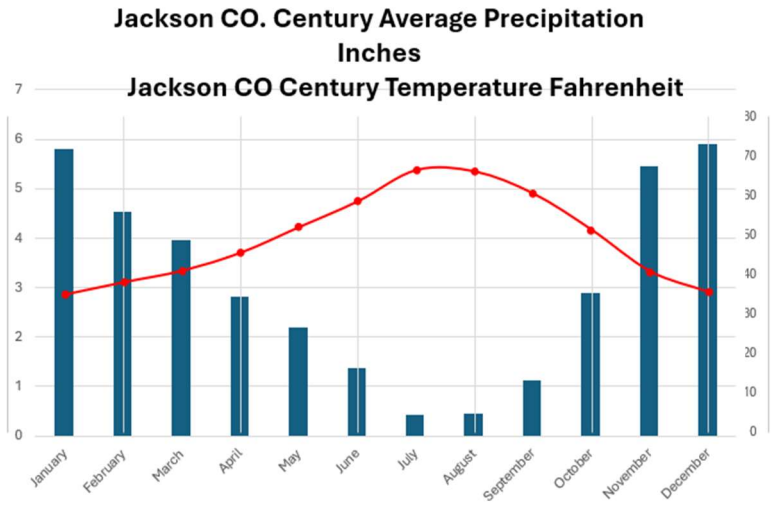

Figure 4. Mediterranean climate of Jackson County, Oregon. Compiled by Alan Journet from data available from NOAA 2026b

indicates the 10th to 90th percentiles for this line. Meanwhile, the orange line represents the SSP370 scenario with orange shading the 10th to -90th percentiles and the blue line indicates the SSP245 line with blue shading the 10th to 90th percentile range. The latter two lines represent scenarios in which we substantially reduce the aggressive trajectory of increasing fossil fuel consumption and greenhouse gas emissions we are following. Figure 3 depicts the change in temperature from the 1950-2014 baseline and depicts a similar trajectory to Figure 2, but as reported by Fleishman (2025) in the latest Oregon Climate Change Research Institute assessment report. Fleishman (2025) depicts the same three scenarios. Interestingly, both USGS and Fleishman suggest a warming of some 10°F for Oregon by 2100. Of course, it's critical to appreciate that we can be smarter than follow the SSP585 trajectory.

In considering the wildfire risk facing Oregon, the first reality to acknowledge is that much of Oregon experiences a winter wet/summer dry Mediterranean Climate as depicted in Figure 4 for Jackson County. This climate occurs in just 6 regions around the globe that lie between 31- and 40-degrees latitude N and S. (Gildemeister undated) As Moreno et al. (2023) noted, “Fires are natural phenomena that historically have been part of the ecosystem in Mediterranean and semi-arid climates…” Regrettably, the historical proclivity for forests in Mediterranean climates to burn is exacerbated by global warming and its climate change consequences as NASA (2025) pointed out: “Earth's warming climate is amplifying wildland fire activity, particularly in northern and temperate forests.”

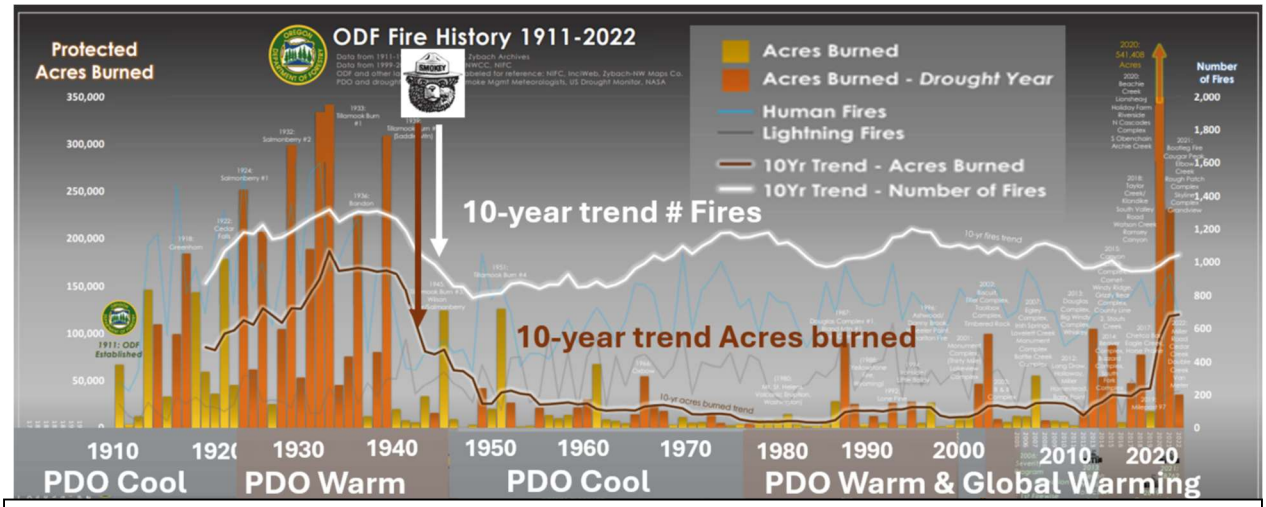

Figure 5. Area burned and fire frequency from 1911 to 2022 in forests managed by the Oregon Department of Forestry (ODF undated, modified by Alan Journet).

The recent history of area burned by wildfire in Oregon is depicted in Figure 5 from the Oregon Department of Forestry (ODF undated). This depicts over a century of fire frequency and area burned. It is evident that area burned at the beginning of the 20th century was substantial. This dropped, as did fire frequency, about the time that the U.S. Forest Service launched the Smokey Bear campaign in response to the threat of Japanese incendiary devices during the second world war (Caro 2024). The result was decades of very successful fire suppression that allowed the build up of dense forests comprising increased biomass (fuel). While fire suppression may seem a logical mechanism for reducing wildfire risk, in fact, as Kreider et al (2024), among others, point out there exists a 'fire suppression paradox' where extinguishing fires can lead to subsequent more severe fires. Thus "by putting out a fire today, we make fires harder to put out in the future." It appears that by the early years of this century, the buildup of fuel due to successful fire suppression had stimulated exactly that future. The second reason for the recent increase in area burned is probably climatic. Through the 20th Century the west experienced a climate that fluctuated between conditions favorable to wildfire initiation and spread as it passed through warm dry phases, and unfavorable as it passed through cooler moister phases. These transitions were driven by the Pacific Decadal Oscillation (PDO) as depicted by the Oregon Department of Forestry (Figure 5). Over more recent decades, the PDO has been superseded in its influence by global warming which, since the 1970s/80s has imposed on the region a climate making it increasingly susceptibility to wildfire spread once fire is initiated. As a result of this combination of circumstances, we have experienced a trend towards megafires, a trend most obvious in the horrendous fire year of 2020 when the Almeda fire destroyed over 2500 homes and wrecked the lives of numerous families in Southern Oregon (JPR 2021). While area burned has exhibited a recent increase, note the fire frequency, though variable has not exhibited a trend.

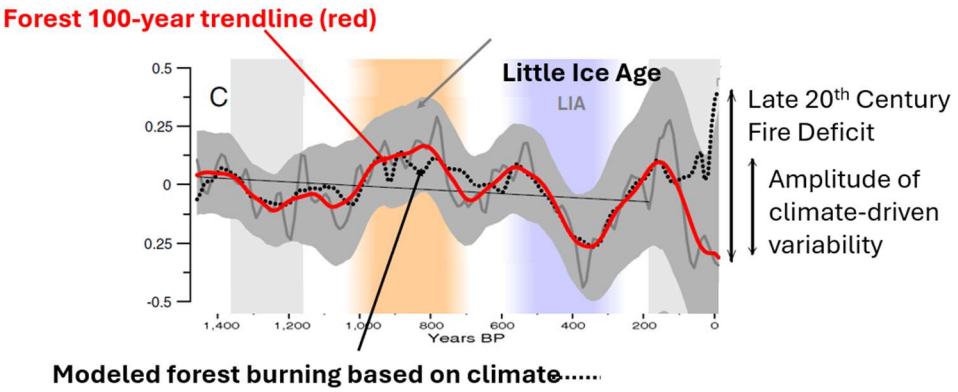

Figure 6. Historic correlation between Climate and area burned in western forests (Marlon et al. 2012).

On possibly a more disturbing note, a 2012 study that related area burned to climatic conditions demonstrated a marked correlation between climatic conditions and area burned by fire, a relationship going back some 3,000 years with a focus on the last 1400 years (Marlon et al. 2012, Figure 6). Regrettably, this same study show that the western states are now experiencing a profound fire deficit. This means that according to recent climatic conditions, we should be experiencing far greater area burned annually than is the case. The evidence suggests that climate change is now the dominant force promoting the recent increasing fire risk we are experiencing and that we can reasonably expect this to be a greater problem through the century as warming continues.

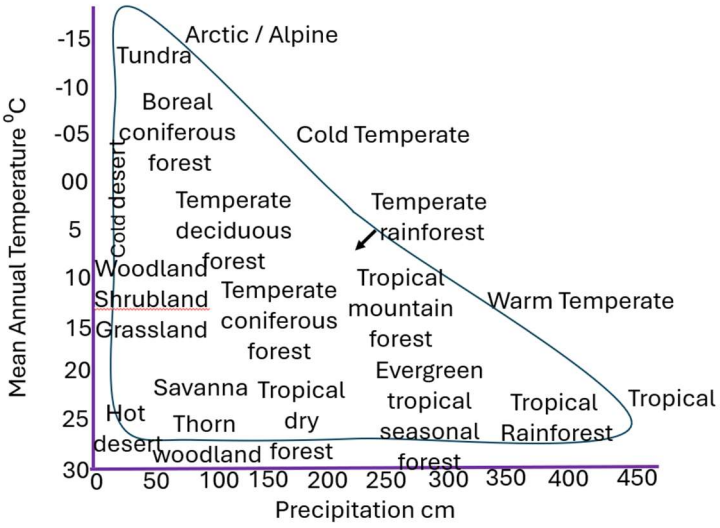

Figure 7. The distribution of global natural ecosystems in relation to mean annua temperature and precipitation. (modified by Alan Journet from Whittaker 1975)

In terms of climatic effects on natural ecosystems, it is worth comparing the projected future Oregon temperature with the climatic factors determining the distribution of the natural ecosystems across the globe. Figure 7, modified from Whittaker (1975), depicts how climatic variables of temperature and precipitation (as a proxy for water availability) affect these ecosystems.

The message from this chart is simply that an adjustment in temperature of just a few degrees can produce a climate that no longer supports the current ecosystem. Reflecting on the projections for Oregon (Figure 2 and 3) will reveal that by the end of the century, the climate in Oregon may no longer support the ecosystems historically and currently present.

Of potentially equal or even greater importance economically, it should be noted, these same variables influence our agriculture, forestry and fisheries. While the future may exhibit potentially dire consequences, historic shifts have already started to impact our ecosystems.

While economic impacts of climate change on our natural ecosystems, agriculture, forestry, and fisheries may be difficult to assess, the obvious devastation that fires have imposed on Oregon is probably a little easier to assess. Indeed, the impact of fires on Southern Oregonians has been financially extremely damaging directly to families and households while dealing with them statewide has cost the state billions of dollars. The 2021 heatwave is estimated to have cost Oregonians at least $1.3 billion dollars and caused over 100 deaths (CCI 2025). In 2024 alone, climate-fueled wildfires burned nearly 2 million acres and cost Oregon over $350 million just in firefighting costs (Kotek 2024). Meanwhile, the 2025 fire season cost the state some $97 million by the end of August (EFCC 2025). The problem is that these costs are currently borne by taxpayers. Yet, if we seek the driving force behind the climatic events that stimulate fire conditions, we find the culprit is largely the combustion of fossil fuels (e.g., Dahl et al. 2023). In the business arena, the principle of generating corporate profits while imposing the cost of those profits on society as a whole is termed 'externalizing the cost of doing business' (SD 2025).

The question we ask is simple: should those earning profits from a business model that imposes damage to and costs on society pay the price, or should those suffering damage pay the price. We argue that this is a no-brainer. Neither Southern Oregonians nor Oregonians generally who suffer fire damage and costs, or the costs of any other consequences of climate change. We should not be expected to pay the direct price that these fires impose on us, and pay on top of that the price for fighting the fires. Indeed, the Oregon treasury is becoming increasingly unable to cover the cost (e.g., Ehrlich 2025). Rather, we argue, the costs should be paid by the corporations reaping enormous profits from the product that increases our fire risk. This means that we should demand fossil fuel corporations pay into a fund that covers the cost of climate change to Oregon, especially the cost of fighting the fires and reducing the likelihood that future urban fires will occur.

This is the essence of the 'Make Polluters Pay' bill, also known as the 'Climate Resilience Superfund' Bill introduced into the Oregon Legislature during the 2026 session. Essentially, corporations conducting business in Oregon, and responsible for greenhouse gas emissions, pay into a state fund a proportion of the cost of climate change to Oregon equivalent to the proportion of global greenhouse gases that their product emits. The amount they pay is based on the cost of the damage this climate pollution has imposed on the state. That cost will be assessed by the State Department of Land Conservation and Development along with other state agencies. Thirty percent of funds will be allocated to the State Fire Marshal for wildfire prevention and mitigation projects while the remainder will be used for projects promoting climate resilience and adaptation with 40% specifically allocated to benefit environmental justice communities.

We urge the state Legislature to pass SB1541.

Those opposing this proposal should first develop a counterproposal that generates the funds necessary to manage wildfire in Oregon that isn't borne by low- and mid-income Oregonians: Two ideas come to mind: raising taxes on the wealthy; imposing larger fees on the harvest of timber in Oregon.

Respectfully submitted

Alan Journet Ph.D.

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