

Testimony on the 2016 Healthy Climate Bill SB1574

Southern Oregon Climate Action Now

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Confronting Climate Change

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**Before the Oregon Senate
Environment and Natural
Resources Committee**

Alan Journet Ph.D.

Co-facilitator

**Southern Oregon Climate
Action Now**

For several years now we have been hearing politicians or commentators telling us they don't believe in climate change, or, if it's happening, humans are not responsible. They then frequently follow this with the disclaimer "but I'm not a scientist." I **AM** a scientist - with a Ph.D. and 30 years of experience teaching university level biology and science process. I am here to tell you that I don't **believe** in climate science either, just as I don't **believe** in the laws of thermodynamics, gravity, or atomic theory. I believe in none of these because belief is based on faith - on an incontrovertible commitment to an idea regardless of evidence - whether in support or to the contrary. Science, on the other hand, relies on data, evidence, and a rational interpretation of what these suggest. Science is skeptical and totally non-partisan. Rather than believing in these well-accepted scientific ideas, I explore the data and the evidence and conclude that explanations offered by scientists in these fields represent the most reasonable and credible explanations for the world that exists around us.

In the case of climate science, the evidence is clear that if we fail to curtail our emissions of greenhouse gases, we will be consigning our beautiful corner of this country to biological devastation. We can choose to continue as part of the problem, or we can become part of the solution by enacting a decreasing cap on the offending emissions. If we, in Oregon, wish to leave for our children and grandchildren a state that offers the wonders, beauty, and economic opportunity that we currently enjoy, we will do what we can to reduce our emissions.

When, as a graduate student in the early 1970s, I first heard the warnings about global warming, I confess I dismissed them as being rather far-fetched. It was not until I was teaching ecology a decade or more later that I came to appreciate the devastating impact that the expected trends would have on our natural systems (our forests, woodlands, grasslands, wetlands, and so forth) and our agriculture and forestry. I therefore, decided it was necessary for me to investigate the science and assess its credibility. I have been doing so ever since - and find it totally credible.

Now, after retiring in 2010, in addition to serving as co-facilitator of the grassroots all-volunteer organization, Southern Oregon Climate Action Now, I teach courses and mini

courses and give presentations on climate science and its regional or local impacts and keep abreast of the science as best I can. It remains entirely credible. Those who reject the conclusions that our planet is warming at an alarming rate and that humans are contributing substantially are living in a dream world fabricated by fossil fuel corporations seemingly intent on maintaining their immense profits even if it costs us the livability of our planet for future generations. As we learn that fossil fuel corporations knew the dangers several decades ago, they now are beginning to acknowledge the problem. It's past time that everybody accepted the science rather than clinging to the anti-science.

The climate impacts of global warming are all around us. We do not have to visit the North Pole to assess dwindling ice to see these impacts. In Southern Oregon, for example, we are experiencing rising average temperatures, increasing number of days over 100 degrees F, reducing snowpack, declining soil moisture, reduced streamflow when irrigation needs it most, and increasing wildfire risk. Precipitation patterns, though annually steady and expected to continue so, are projected to exhibit three critical trends: first is the trend towards precipitation falling as rain at lower elevations rather than snow at higher elevations, second is we will experience wetter winters and dryer summers, and third is the trend towards precipitation falling in heavy downpours causing floods and soil erosion rather than gentle rains that replenish soil moisture. The CA and OR droughts of the recent past are merely harbingers of serious problems in the future. The impacts of global warming will not just intrude on our lives at some time in the future and at locations far from here; we are feeling the impact here and now. And if we follow the business as usual (bau) scenario of ever increasing fossil fuel consumption and greenhouse gas emissions, we can guarantee ourselves a future where the current trends continue and we threaten our children and grandchildren.

The projections, according to the this bau scenario, show Oregon experiencing an average temperature some 8 (coastal) to 10 (eastern border) degrees F above late 20th century average by the end of the century. Snowpack will likely be 10% or less of those norms, while wildfire will likely be consuming much more of our state. Studies undertaken by Gerald Rehfeldt and his team of the USFS (Moscow, Idaho) on future climate and tree viability reveal that many critically important commercial species and communities will exhibit reduced range and viability in our state, some being totally excluded (<http://forest.moscowfsi.wsu.edu/climate/species/>). We should not let this happen. Notably, the impacts will likely be greater for rural than urban Oregon as agriculture and forestry are compromised. Coastal communities, meanwhile, will suffer from rising sea level and ocean acidification undermining commercial fisheries of all kinds.

Those of us who enjoy our corner of Paradise and want to preserve it for future generations wish to reverse these trends. This means reducing greenhouse gas emissions on a global basis. But, if we are urging others to do their part, we must also demand that we do ours. Although the contribution of Oregon to national emissions may be less than 1% and to global emissions less than 0.2%, if we do not reduce our emissions, we will not be taken seriously when we ask others to reduce theirs.

States that have imposed a cap and trade system, such as SB1574 proposes, have seen greenhouse gas emissions reductions accompanied by economic growth. The bill does not take Oregon down untrodden paths to dump us in untested waters; it applies what we have learned elsewhere with great success and brings Oregon to the forefront of efforts to solve this global crisis. It is important to understand that studies by Mark Jacobson of Stanford University reveal that we could power every state in the U.S. 100% on renewable energy (<http://thesolutionsproject.org/>). Nothing in the Healthy Climate Bill comprises mere wishful thinking. We can do it; all we require is the will to do it.

I live in rural Jackson County. I can testify that many residents in my area want the Oregon legislature to follow the example of other states and pass the Healthy Climate Bill. If we do this, just as one fifth of the states in the country already have done, we can reduce our greenhouse gas emissions without compromising economic growth. On behalf of the nearly 1000 Southern Oregon residents who are Southern Oregon Climate Action Now, and on behalf of future generations in Oregon and across the globe, I urge you: support the Healthy Climate Bill"

A handwritten signature in black ink that reads "Alan Journet". The signature is written in a cursive, flowing style.

Submitted by Alan Journet Ph.D.

On behalf of the >900 Southern Oregon Residents who are Southern Oregon Climate Action Now

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