

Chair Dembrow, Members of Senate Joint Committee on Environment and Natural Resources:

Thank you for providing the opportunity to have this very important conversation with you.

I am a biologist – specifically a plant biologist, and have worked in natural resource management in the region for 17 years. Since 2005, I have owned a small botanical consulting business based in Ashland, OR. I work throughout Oregon and California, and provide services such as:

- comprehensive floristic inventories to identify and map rare plant populations prior to ground disturbance associated with various projects
- Mapping of vegetation communities
- Writing the botanical effects analysis sections of environmental assessments or environmental impact statements

For example, last year I was the lead botanist on the Fresno to Bakersfield section of CA High Speed Train and, a wetland health assessment across the state of OR for the EPA.

I arrived in SW OR in 2000, fortunate to accept a botanist position on the Rogue River-Siskiyou NF, based in Cave Junction and Grants Pass.

In 2002, the Biscuit Fire started on my district, one of the largest fires to occur on our National Forests. It burned about 500,000 acres and cost over 150 million dollars in suppression efforts. I served as a resource advisor, a wildland firefighter, and led a crew post-fire to restore suppression efforts.

For me, the Biscuit fire was my local on-the-ground introduction to the effects of climate change and the policy of fire suppression in our Western forests.

Over the past decade, there have been unusually large stand replacement fires across the West – these fires are larger in size, higher in intensity and severity, resulting in large areas of stand replacement that may take many years or decades to recover.

Part of this is due to our changing climate, and partially in the way we have managed hazardous fuel conditions in our forests during the last century – suppressing fires and allowing forests to become dense with smaller trees, resulting in ladder fuels which increase fire hazard and potential loss of habitats for rare plants and wildlife such as the Northern spotted owl.

In the Pacific Northwest we are seeing the wildfire season coming earlier, lasting longer in duration, with a greater intensity. Larger and longer wildfires send more particulate matter into our air, impact community health due to smoke, and have tremendous suppression costs.

In SW OR, weather data shows that we are currently experiencing a warming of 2 degrees F per century. Precipitation in the region has remained about the same, but with the increase in average temperature there is a reduction in soil moisture which impacts the size, severity and

duration of wildfires. Coupled with this, there is an increase in winter precipitation, and a decrease in summer precipitation which further contributes to severe wildfires. In addition, the snow pack is decreasing as increased temperatures favor rain rather than snow. This further impacts soil moisture, as there is less snow melt run off in summer and fall months. This lowers summer streamflows of cold water, which can affect the health of important fisheries.

Higher temperatures, changing streamflows, and an increase in pests – like the pine beetle, disease, and wildfire are threatening our forests, and – our beloved salmon populations.

Salmon are particularly sensitive due to their seasonally timed migration upstream to breed. Higher winter streamflows and earlier peak streamflows, due to climate change, will damage spawning nests, wash away incubating eggs, and force young salmon from rivers prematurely.

In my profession these concerns are evident in our natural systems. A strong climate bill is essential to protecting our forest and ecosystems for our children and theirs.

Thus, I am here to express my support for SB 557, The Clean Energy and Jobs Bill that would cap or limit greenhouse gas emissions, trade allowances and use the proceeds from the auction of allowances to invest in Oregon and Oregonians - by reducing emissions and promoting renewable energy.

Why would this be a good thing for Southern Oregon?

Southern Oregon needs more good paying jobs.

We need to keep more of our energy dollars working for us here at home, rather than paying out-of-state oil companies for our electricity – which simply takes dollars out of Oregon.

It would position Oregon to be a leader in the renewable energy field and as evidenced by those states that have already passed such a bill – bring economic benefit across the state. Since neighboring California adopted a similar law, it has attracted clean-technology venture capital – nearly three times as much as the year before the law passed.

We need practical action to slow climate change and transition faster to clean energy and greater energy efficiency.

Thank you for the opportunity to testify before you today. I would be happy to answer any questions.