BEFORE THE HOUSE COMMITTEE ON ENERGY AND ENVIRONMENT

Testimony of Dr. John Talberth, Sustainable Energy and Economy Network, in support of HB 2656

1. Chairman Helm, members of the Committee. Thank you for the opportunity to testify. My name is John Talberth, Senior Economist with the Sustainable Energy and Economy Network. I also serve as President of the Center for Sustainable Economy. I have over 30 years' experience in forest policy and economics at the international, national, and state level here in Oregon and have published regularly on topics germane to these proceedings, specifically, about the harmful climate impacts of industrial forest practices and the many policy options available to expedite the transition to climate smart alternatives in a manner that ensures a net positive economic outcome for all stakeholders involved. HB 2656 is one such measure, and I thank and applaud Representatives Salinas and Power for moving this bill forward.

2. As you know, the nexus between industrial scale logging practices, water supply, climate change, and the deficiencies of our current regulatory context is hardly an area that can be covered at any depth in a preliminary hearing such as this. We thus eagerly await that deeper dive in subsequent work sessions. For now, I will just leave you with a roadmap to what I believe are the three most important facts to consider.

3. The first is the alarming scientific case for intervention. You can take any metric you like – those related to water supply, water quality, or watershed integrity – and the scientists will tell you the same story over and over again: industrial forest practices have severely compromised our water supplies and climate change is making matters so much worse.

4. These practices, that include clearcutting, construction of dense logging road networks, short rotation tree plantations and heavy doses of chemicals and fertilizers like glyphosate, 2-4-D, atrazine and urea have significantly reduced dry season water supplies, created hot microclimates that boost water temperatures to unhealthy levels, introduced contaminants that are expensive to filter out, and left our drinking watersheds more vulnerable to wildfire, floods, landslides, toxic algae blooms and outbreaks of insects and disease. As well documented in Oregon's Annual Climate Assessment and the literature in general, each of these risk factors is on the rise already due to climate change and so industrial forest practices are, so to speak, adding fuel to the fire.

5. The research is remarkable in its precision, scope, and longevity. Take for instance, the seminal work by Perry and Jones, published in 2016 comparing water supply from heavily logged versus relatively intact watersheds over decades. Here is a direct quote: *"Average daily streamflow in summer in basins with 34 to 43-year-old plantations of Douglas-fir was 50% lower than streamflow from reference basins with*

150- to 500 – year-old forests dominated by Douglas-fir, western hemlock, and other conifers." So, half the summertime supply of water from these watersheds is already gone due to clearcutting and timber plantations. Climate change is eating away at the rest.

6. Studies about fire risk are equally compelling. It is the timber plantations, not the high biomass natural forests on our federal land that pose the greatest risk as the climate warms and dries. Here's a quote from a close examination of fire behavior on Oregon's O&C lands that appeared in the journal *Ecological Applications* last year: *"Our findings suggest intensive plantation forestry, not pre-fire biomass, were significant drivers of wildfire severity."* And then, there is the really scary science on harmful algae blooms, which shut this city down last summer. Here are some findings from research that spans the period 1970 through 2008: *Toxic algae, also called cyanobacteria, flourish in water temperatures greater than 15°C. While preharvest stream temperatures reach up to 13°C over summer months, water temperatures after clearcutting well surpass 15°C, sometimes reaching temperatures of up to 29°C*. Here are some findings about urea and glyphosate, chemicals routinely dumped on plantations in our drinking watersheds: *With the presence of glyphosate and urea in streams, nontoxic algae growth is inhibited, and harmful algae blooms dominate without competition*. The literature is full of riveting findings like these.

7. The second key fact of this situation is the urgent need for legislation that directly intervenes to reduce these risks, like HB 2656. Anyone who's worked with water law will tell you that when it comes to source water protection, non-point sources of pollution and synergistic effects such as those in play with harmful algal blooms the existing regulatory framework provided by the Safe Drinking Water and Clean Water Acts is powerless to do anything about it. Programs under these statutes have been good at giving us an understanding of the risks, but it up to statehouses and committees like this to do something about it.

8. A case in point is ODF's continuing lack of intervention to halt thousands of acres of clearcuts in drinking water supplies each year – an eye-popping 27,000 acres of new clearcuts have already been delineated in source water areas for public water systems this year according to the agency's FERNS notification system and in every case DEQ has identified clearcutting, logging roads, and chemicals as primary drinking water supply risks through their source water assessment program administered under the federal Safe Drinking Water Act. DEQ and ODF need clear legislative direction to remove these practices from what they consider acceptable in our drinking watersheds and be empowered to deny permits for logging operations that exacerbate the problem. This is what HB 2656 will help do.

9. My third and final point is a hopeful one – the tried and true solutions to this crisis can be implemented legislatively in a manner that is net economic positive for

all stakeholders involved. The solutions involve not only prohibiting risky activities but also making climate smart, or ecological forestry, exquisitely detailed in publications by some of the world's most renowned forest scientists such as Jerry Franklin, Norm Johnson, Deborah Johnson and Kathryn Kohn the law in our drinking watersheds.

10. These practices are win-win-win solutions for landowners, workers, and communities. They reduce water treatment costs and bolster supply, they increase timber yields in the long run, and they open up new opportunities for landowners to earn multiple revenue streams from timber, recreation, tourism, non-timber forest products, carbon payments, thermal pollution credits and other sources. Climate investment funds associated with HB 2020, funds generated by rescinding or redirecting harmful subsidies as proposed by HB 2659, and federal collaborative forestry funds are just three of several pots of money that can be tapped to soften or eliminate any economic hardships caused by the needed transition. It is not unreasonable to expect that these sources can yield well over $100 million per year for an indefinite time forward. I hope we can get into these opportunities in more detail in the months ahead. Thank you.

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