

Testimony of Tina Schweickert on HB 2656, March 12, 2019

Thank you for the opportunity to testify in support of HB 2656. My name is Tina Schweickert. As part of my career in environmental policy and management, I worked for the City of Salem from 1991 to 2001, serving as water resources coordinator. I worked on watershed protection through public outreach, interagency coordination, and responding to forest activities that impact the city's drinking water source. Also relevant to this testimony, I am a small woodland owner in rural Marion County and served on the Agricultural Water Quality Plan development committee for the Molalla, Pudding, N. Santiam region.

Salem draws its drinking water from the North Santiam River. The city uses slow sand filtration followed by chlorination, with pretreatment as needed. Salem tapped into the Santiam's high quality source waters in 1935 after a long struggle with bad water from the Willamette. Salem now holds the earliest water rights, dating back to 1856. Residents and local industry enjoyed the high-quality water the North Santiam consistently provided until recent decades when two major events severely compromised its quality. Both point to timber harvest activities that destabilized the watershed.

Extraordinary Turbidity Event in Aftermath of 1996 Flood

The first major event occurred following the 1996 flood: Detroit Reservoir held muddy water and sent it downstream for four months. The highly turbid water destroyed one slow sand filter and damaged the second. The filters could not remove all the sediment and the Oregon Health Division granted Salem a special variance to allow drinking water above turbidity limits. In addition, the city spent many thousands of dollars to drill emergency wells, purchase groundwater from neighboring communities, and construct an emergency pretreatment system. Before these could be done, the city came

dangerously close to running out of water and asked customers to cut use by 50 percent while major industries were asked to shut down until new supplies could be brought online. Later, as a result, the city spent millions to rebuild one filter and repair the other and to construct a new permanent pretreatment system for high turbidity events.

The city wanted answers. They engaged in cooperative studies with the Willamette National Forest, EPA, USGS, and Oregon State University. In addition, Senator Ron Wyden called for a General Accounting Office study of the relationship to federal forest management. The determined culprit: extraordinary amount of sediment released during the flood contained fine clay particles that remained suspended in Detroit Reservoir. Why the mass sediment movement? The watershed had been compromised by high rates of clearcutting and roadbuilding in the 1980s. They called it “legacy conditions” that would slowly heal as the new Clinton Forest Plan with its watershed assessment strategy, wide stream buffers, and goals for restoration was implemented.

The city stepped up efforts to assess every timber sale. The Public Works Director Frank Mauldin at the time said, “I never saw a clearcut I liked, or that the watershed liked.” We would then negotiate with federal land managers who would compromise on proposed timber sales. However, the Oregon Department of Forestry and private lands were under no obligation to do so. The Oregon Forest Practices Act provided very little protection for water quality and certainly didn’t adequately reflect the science on sediment and nutrient delivery from roadbuilding and clearcuts on steep slopes.

Next Major Event — Harmful Algal Bloom of 2018

Concerns about harmful algal blooms in Salem’s watershed were not even on the radar until recent years. Conditions for such blooms include sunlight, warm water, and high concentrations of nutrients. Though climate change is likely a factor, it alone does not

explain this recent phenomenon. If that were so, why wouldn't Bull Run be experiencing the same problem?

What has changed at Detroit? The loading of sediments over decades of clearcutting and roadbuilding could be reducing the reservoir's depth and thus increasing the potential for warmer water. Nutrients could be entering through runoff from clearcuts and roads and fertilization of young stands.

During the harmful algal bloom and cyanotoxin release, I wanted answers myself, so I viewed recent satellite photos of Detroit Reservoir. There have been several clearcuts with road and yarding activity, as well as young stands, on steep slopes in the southwest area of land draining to the lake. These are private lands and are not required to minimize watershed impacts. Could there be a connection? I believe there could be.

But the city can't wait for answers or for the watershed to heal. Instead, they are preparing to invest \$80 million to expand backup water sources and build an ozone contact chamber to remove any future cyanotoxins. The ongoing operating costs will increase due to high energy demands of such a system.

Is new and expensive technology the only way out of this? Is it worth it to the state to allow relatively few landowners to profit from clearcutting vulnerable land, while letting hundreds of thousands of people and local industries bear the cost burden of the damage these acts cause?

A healthy watershed does not need technology to produce plentiful, high quality water. It freely does this when allowed to do so. We just need to stop our harmful practices and work *with*, not against, the natural systems that serve us so well.