

Hello, my name is Bruce Topham. I wish to thank the committee for allowing my testimony here today. I am a cattle rancher of many generations and a geologist for 55 years since graduating with my degree in 1964. I came to the Sprague River Valley 47 years ago and have been raising cattle on our family ranch and practicing ground water geology there ever since. We need legislation to help protect our verdant valley from being turned into an arid wasteland by the Oregon Water Resources Department's unfounded attack on our irrigation wells. They assert unproven theories of the ground water geology of our valley to justify shutting of our irrigation wells. The geology of our valley is unique and complex. Rock strata are heterogeneous and of limited extent. They vary from impervious clays and volcanic ash to highly permeable fractured lava flows. Generally these confined lava flows contain pressurized artesian water and are the predominate source of irrigation water in the valley. These aquifers are found at depths of 300 to well over 1000 feet and are buried within impermeable ancient lake beds. They recharge from the highlands where the lava flows exist above the old lake beds. These confined aquifers often exhibit hydraulic pressures up to 40 psi while displaying no evidence of springs or other leakage at land surface. Since irrigation wells are penetrating various rock strata and produce from varied

aquifers both in depth and areal extent, each well exhibits its own individual characteristics and cannot be categorized into a basin wide overview. Each needs to be studied on its own merit before concluding they are interfering with surface water interests. Please help us by passing Senate Bill 791. Until a well can be proven by field observation to be part of actual or imaginary interference with surface water, leave it alone. Our valley and its ecology do not deserve to be destroyed by unbridled and unaccountable bureaucracy.

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