DON'T SAVE ALL THE TREES! ENSURING THE SURVIVAL OF PACIFIC NORTHWEST FORESTS THROUGH ECOLOGICALLY-FOCUSED THINNING TREATMENT

Session B, Breakout Room #4:

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Historic, industrial-scale logging has changed Pacific Northwest landscape from diverse old-growth forests to now much younger, structurally simple forests. These altered forests prominently, that lack diversity in species, are much more susceptible to climate stressors. In the wake of increasingly hotter and drier summers, these younger trees must enter older seral stages (developmental tree stage), if they are to survive increasing climate stressors. The aim of this study was to determine the effectiveness of preserving soil moisture amongst several different rates of tree thinning treatment (removal of trees in an area), to support such forest development. As a forest soils science intern, soil moisture data via - volumetric water content percentage (VWC %) - was collected through an electromagnetic probe known as the HydroSense (Version II). Findings from this this data collection and analysis reinforce ecological response to thinning forest sites at a rate of 50 – 70%. at retaining soil moisture amongst trees for them to development into older, more resilient trees. These results show that soil moisture is one of many factors that must be considered when addressing forest restoration. However, if this field is to holistically development into tangible forest restoration, cross-cultural collaboration must be at the forefront of federal and state agendas. Such conversation in natural resource management can help steward these altered forests in an age of warming climate and replace lost old-growth forests in a truly non-industrial relationship to our environment.