April 28, 2021

Oregon Senate Committee on Natural Resources and Wildfire Recovery

Dear Senator Golden and members of the Committee,

Thank you for inviting me to submit testimony regarding the Oregon Department of Transportation's ("ODOT") 2020 wildfire hazard tree removal project. My name is Rick Till. I am an ISA-Certified Arborist (PN-8358A), and ISA-Qualified Tree Risk Assessor, and a Tree Care Industry Association Certified Treecare Safety Professional.

My prior work includes being a trails technician/wilderness ranger for the USDA Forest Service in Washington. In that work I held a firefighting red card for three years where I gained direct experience firefighting, spotting and calling in fire locations in wilderness settings, evacuating a portion of a wilderness for one fire, and observing the response of burned forest areas post fire.

I have not been employed on the ODOT hazard tree removal project. On Monday April 26, 2021 I traveled Oregon Highway 22 and visited several locations where fire damaged trees had been marked for removal. I inspected at least 6 trees very closely for bark char and crown damage. I also viewed hundreds of trees while driving the highway.

I have reviewed CDR Maguire's Version 8.0 of the "ODOT Debris Management Tree Assessment Procedures."[1] I have also reviewed the Forest Service guidance document that is the basis of the ODOT Assessment Procedures, *Post-fire Assessment of Tree Status and Marking Guidelines for Conifers in Oregon and Washington* (R6-FHP-RO-2020-02).[2]

I can testify generally to whether the ODOT Debris Management Tree Assessment Procedures were effective or appropriate as hazard tree identification guidelines. I can also testify as to whether a large number of trees marked for removal along Highway 22 and the Santiam River are actually hazard trees under ODOT's Tree Assessment Procedures or the more relevant industry standards established by the ISA Tree Risk Assessment Qualification or Forest Service hazard tree guidance.[3]

The brief summary of my testimony is that the ODOT Tree Assessment Procedures are being used to preemptively remove many live trees that are currently a very low risk to the public. During my inspection of trees along Highway 22 I found many trees marked for removal that have at most moderate fire damage and that have a high probability of surviving. These are currently low risk trees and they will remain low risk trees for many years to come.

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[1] *Hereinafter* "ODOT Tree Assessment Procedures".

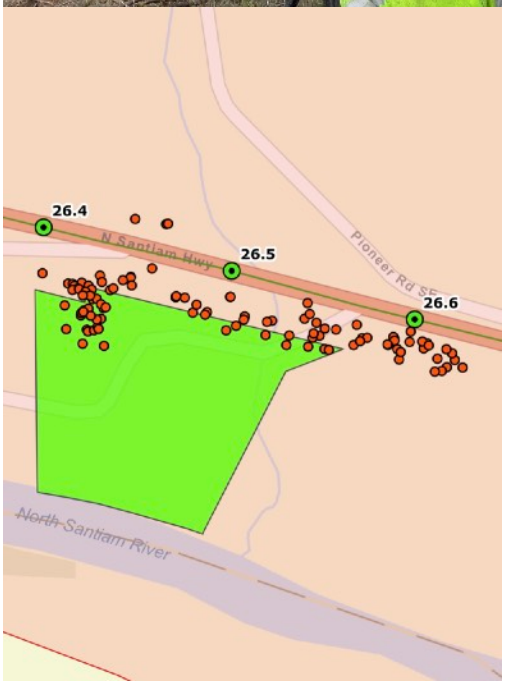
[2] H*ereinafter* "Forest Service Guidance".

[3] *Field Guide for Danger-Tree Identification and Response along Forest Roads and Work Sites in Oregon and Washington* (Forest Service 2016).
Field Guide for Hazard-Tree Identification and Mitigation on Developed Sites in Or and Wa Forests (Forest Service 2014)

The ODOT Tree Assessment Procedures are nearly identical to portions of the Forest Service Guidance. However, there are critical elements missing from ODOT's version of the protocol. The Forest Service Guidance explicitly states that the guidelines are for predicting mortality and are not appropriate for hazard tree identification: "**This document should not be used as hazard or danger tree guidelines**. It does not account for the probability of tree failure after fire, only the likelihood of death." Forest Service Marking Guidelines at 2 (emphasis added).

The Forest Service Guidance is primarily used for forest management decisions, such as evaluations of whether a fire damaged stand should be considered for salvage logging or whether the stand can be expected to meet forest management objectives. It is fundamentally not a hazard tree evaluation procedure.The Forest Service directs users to other guidance documents for identifying hazard trees.

The Forest Service Guidance recommends that land management objectives be documented and used as the basis for finalizing a "probability of mortality" threshold to be used in decision making. The Forest Service Guidance is very clear: "Use higher probability thresholds when it is important to prevent taking trees that may live." Forest Service Guidance at 23. In this case ODOT adopted a low threshold of 50% chance of mortality. If ODOT prioritized live tree retention it should have adopted a higher threshold. Again, the probability of mortality threshold is absolutely not a hazard tree threshold. One can adopt a high probability of mortality threshold and still retain a low risk tolerance.



Ultimately this means that even if the project went according to plan, then ODOT would remove many thousands of live trees preemptively rather than wait and see how many trees actually die and then become hazardous. ODOT could have adopted a higher probability of mortality threshold, removed the trees in the worst shape, and monitored the remaining trees to see how they responded. More time would also allow for greater accuracy in predictions. More trees could be saved and less money would be spent.

On April 26, 2021, I visited with the Mayor of the City of Gates. He took us to see trees marked along Highway 22. At multiple locations, I inspected several large Douglas-firs. Each tree was marked with blue paint and tags with barcodes. In each case the species was still easily identifiable by the bark, which according to the Forest Service guidance is a sign of at most

“moderate” bark char. I inspected the depth of the char and found only shallow damage. I inspected the cambium (layer of cell division under the bark) on several trees that were recently cut and confirmed that the tissue was alive. The crown of the majority of these trees had minimal to moderate damage (much less than 50%). Several trees had understory branching that was clearly dead from shading/lack of sunlight, a very normal and expected occurrence with Douglas-fir. If someone was not familiar with Douglas-fir they could have mistaken this normal occurrence as fire damage. There were some low branches that were burnt or lost needles. For many of the trees the crown damage was much less than 50% of the live crown. There were

trees with severe damage, but I was surprised by the number of trees with minimal to moderate damage that had been marked for removal.

In short, many of the trees I observed at various locations did **not** pose an imminent risk, nor did they have a probability of mortality. There was only moderate bark char and moderate or minimal crown damage. Many of these trees have a high probability of survival for the indefinite future, yet they were marked for removal as though they were an immediate risk to the public. From what I observed I can say with confidence that many trees are being marked as immediate hazards that have a minimal risk of mortality from the fire and a very low long-term risk to the public.

The scale of over-marking is an indicator of major flaws in how the process is being implemented. The alarming reports from the various workers that have left the project are strongly corroborated by looking at the work that is occurring on the ground. Green trees with a very low risk to the public are being removed. Under any of the tree risk assessment criteria, these are low risk trees and removal is not warranted.

Thank you for the opportunity to comment.

Sincerely,
Rick Till
ISA-Certified Arborist
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