9GA22700
HAMEY WOODS
SANTA CRUZ MOUNTAINS POST-FIRE REDWOOD DEFECT STUDY

Date: October 18, 2023

Principal Investigators: Nadia Hamey, RPF #2788 ██████████████████
████████; and

Donald Campbell, University of California, Berkeley, ███████████████████
██████████

Project Status and Progress Report:

The study trees at Swanton Pacific Ranch were harvested and tracked through the scaling process, to the extent feasible. We had a difficult time tracking trees all the way to the sawmill and only approximately 60% of the study trees could be matched with their scaling data. Interpreting the scaling codes to correlate with 2020 burn damage is also a challenge. We collected photos and scaled individual logs in the woods and at the landings. Photos of the tree cross-sections are a valuable tool for interpretation of the defects introduced by the 2020 fire.

Approximately 70 additional trees were tagged and assessed for burn damage in the Lower Deadman Harvest Unit at San Vicente Redwoods. Each tree was assessed using Sonic tomography to make a computerized depiction of structural decay versus healthy wood; and Impedance tomography which reflects moisture content to indicate wetter and drier regions in the study trees at breast height. These trees are currently being cut as part of the Lower Deadman Emergency Notice #1-23EM-00085-SCR. They will be bucked at 1 meter from the base to be scaled at the same height as the tomography and the cambium checks.

Attached: Log Scaling of Swanton Pacific Ranch Study Trees – Photo Documentation

Swanton Pacific Ranch: Redwood Defect Study part 1

Stump

Tree #1
- Stump: 18.5" Inside Bark (IB)
- 2" of rot from 2020 fire around 75% of circumference and reaches edge of heartwood
- Yellowing sapwood

Stump

Tree #2
- Stump: 18.5" Inside Bark (IB)
- 2" of rot from 2020 fire around 5% of circumference and reaches edge of heartwood
- Yellowing sapwood

1st log – Large End

- 1st log Large End: 20" Inside Bark (IB) – X bf (board feet) gross volume 20" after deductions
- Healthy sapwood and heartwood
- 42' log length

No Picture of Tree #1 1st log Small End 2nd log – Large End	1st log Small End: 14" Inside Bark (IB) – X bf (board feet) gross volume 20" after deductions - Healthy sapwood and heartwood 2nd log Large End: X" Inside Bark (IB) – X bf (board feet) gross volume - Healthy sapwood and heartwood
 Stump 1st log – Large End	**Tree #3** - Stump: 27" Inside Bark (IB) 2" of rot from 2020 fire around 20% of circumference and reaches edge of heartwood - Yellowing sapwood 0.5" decay into heartwood 1st log Large End: 18" Inside Bark (IB) – X bf (board feet) 2" of rot from 2020 fire around 65% of circumference and reaches edge of heartwood 1" x 1" heartwood decay at center - Missing sapwood from 10% of log 21' log length