

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

Date: August 1, 2023

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[REDACTED]

Project Status and Progress Report:

The study is well underway after the first quarter of data collection. Approximately 60 trees were tagged and assessed for burn damage with data regarding the post-fire effects gathered for each tree.

The study locations include an area at San Vicente Redwoods in the Lower Deadman Gulch harvest area Notice of Emergency Timber Operations #1-23EM-00085-SCR, and an area at Swanton Pacific Ranch in the Satellite Stands Unit of the Swanton Pacific Ranch NTMP, #1-07NTMP-020-SCR, NTO #5. Maps are attached. Areas will be thinned this summer and Hamey Woods foresters will track the trees through the scaling process. Following cutting, trees will be bucked and graded with notes and photos to document the decay introduced by the 2020 fire.

We are fortunate to be collaborating with researchers from UCSC in Dr. Greg Gilbert's lab who have added a tomography component to our study. Dr. Gilbert has studied wood-decay fungi in tropical and temperate forests for three decades and directs the UCSC Forest Ecology Research Plot. Doctoral student Liz Rennie brings experience in molecular ecology and disease ecology. Together, we are deploying Sonic tomography (Picus 3) to make a computerized depiction of structural decay versus healthy wood in a subset of the study trees; and Impedance tomography (Treetric) which reflects moisture content to indicate wetter and drier regions at breast height. Changes in patterns can indicate waterlogging or disruption of the vascular system, often before structural loss is detectable, and readings will be correlated with the post-fire effects and scaling data.

Burn damage assessment: Photo Documentation



SPR Redwood Study Tree with Wet Rot fruiting bodies (*Coniophora puteana*)



SPR Redwood Study Tree – Cambium check with insect bore holes



SVR Redwood Study Tree



SVR Redwood Study Tree – Cambium check



SPR Redwood Study Tree



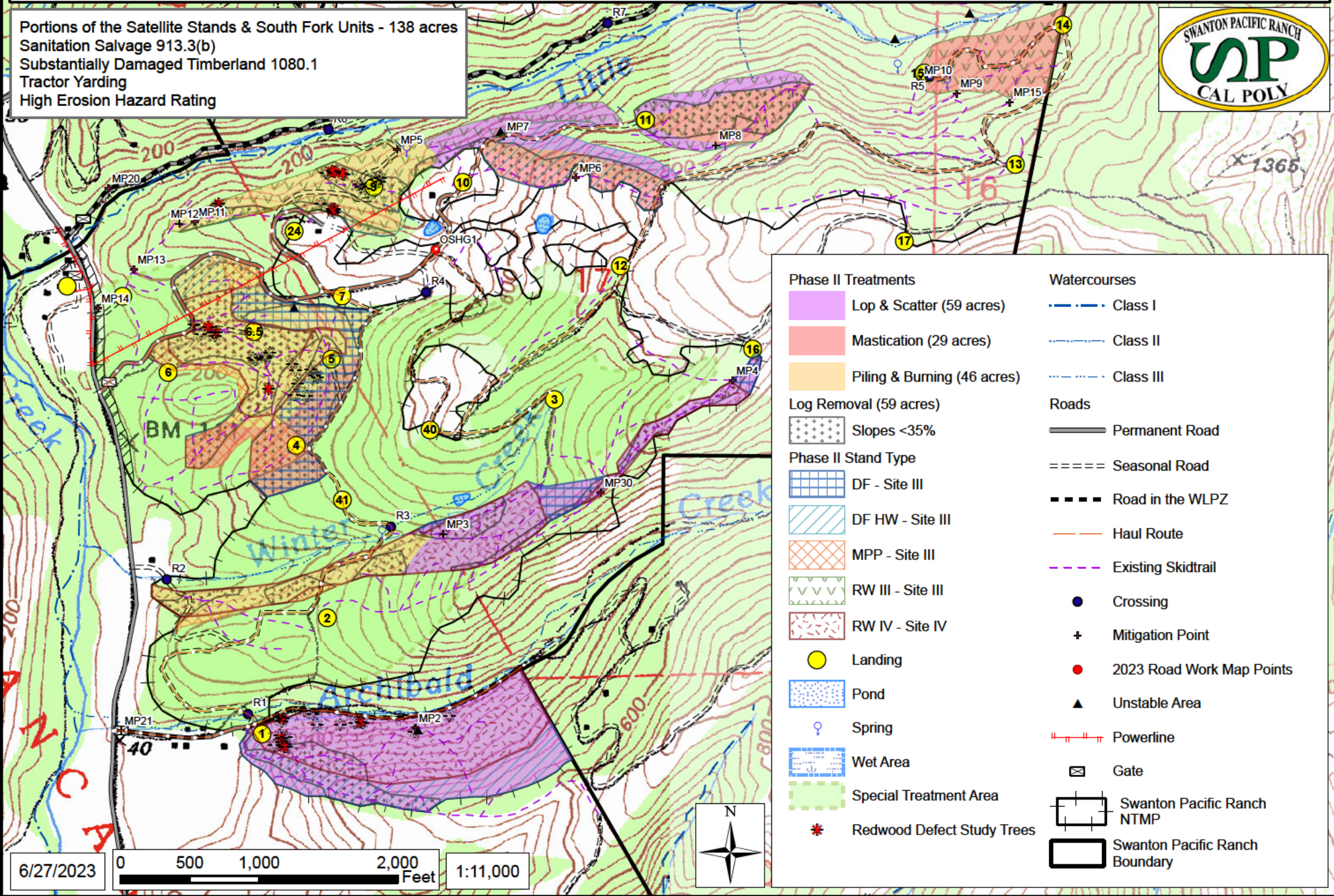
SPR Redwood Study Tree

Portions of the Satellite Stands & South Fork Unit Operation Map

Swanton Pacific Ranch NTMP, NTO #5 & Defect Study Map

T10S, R3W, Portions of Section 16,17, and Rancho Agua Puerca y Las Trancas MDB&M, Santa Cruz County, Davenport USGS 7.5' Quadrangle

Portions of the Satellite Stands & South Fork Units - 138 acres
 Sanitation Salvage 913.3(b)
 Substantially Damaged Timberland 1080.1
 Tractor Yarding
 High Erosion Hazard Rating



Phase II Treatments	Watercourses
Lop & Scatter (59 acres)	Class I
Mastication (29 acres)	Class II
Piling & Burning (46 acres)	Class III
Log Removal (59 acres)	Roads
Slopes <35%	Permanent Road
Phase II Stand Type	Seasonal Road
DF - Site III	Road in the WLPZ
DF HW - Site III	Haul Route
MPP - Site III	Existing Skidtrail
RW III - Site III	Crossing
RW IV - Site IV	Mitigation Point
Landing	2023 Road Work Map Points
Pond	Unstable Area
Spring	Powerline
Wet Area	Gate
Special Treatment Area	Swanton Pacific Ranch NTMP
Redwood Defect Study Trees	Swanton Pacific Ranch Boundary

6/27/2023 0 500 1,000 2,000 Feet 1:11,000



San Vicente Redwoods (SVR) - Lower Deadman Post-Fire Redwood Defect and Merchantability Study DRAFT (6/22/23)

T9S & T10S, R3W, San Vicente Rancho, MDB&M, Santa Cruz County, Davenport USGS 7.5' Quadrangle

