

Learning how to apply adaptive management in Sierra Nevada forests: An integrated assessment

Sierra Nevada Adaptive Management Project

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SNAMP Principal Investigators^{*}

Lead PI: John J. Battles, UC Berkeley

Co-PI, Water: Roger C. Bales, UC Merced
Co-PI, Water: Martha H. Conklin, UC Merced
Co-PI, Spatial: Qinghua Guo, UC Merced
Co-PI, Wildlife-Owl: R. J. Gutiérrez, University of Minnesota
Co-PI, Participation: Lynn Huntsinger, UC Berkeley
Co-PI, Spatial; Participation: N. Maggi Kelly, UC Berkeley
Co-PI, Participation: Susie Kocher, UC Cooperative Extension (2014-2015)
Co-PI, Wildlife-Owl: M. Zachariah Peery, University of Wisconsin (2010-2015)
Co-PI, Fire and Forest Ecosystem Health: Scott L. Stephens, UC Berkeley

Co-PI, Wildlife-Fisher: Reginald Barrett, UC Berkeley (2008-2011)

Co-PI, Participation: Kimberly Rodrigues, UC Cooperative Extension (2008-2013)

Co-PI, Wildlife-Fisher: Richard A. Sweitzer, UC Berkeley (2010-2013)

Cooperating Scientist, Wildlife-Fisher: Craig Thompson, USFS PSW (2013-2015)

*Period of service: 2008-2015 unless otherwise noted.

Report prepared by members of the SNAMP University of California Science Team

Roger Bales Reginald Barrett John Battles William Berigan **Brandon** Collins Martha Conklin Adrian J. Das Shasta Ferranto Jacob Flanagan Danny Fry Qinghua Guo R. J. Gutiérrez Peter Hopkinson Ann Huber Lynn Huntsinger Kim Ingram Marek Jakubowski Maggi Kelly Susie Kocher Anu Kramer Kevin Krasnow Shufei Lei Wenkai Li

Anne Lombardo Sarah Martin M. Zachariah Peery Viorel Popescu Ram Ray Kim Rodrigues Gary Roller David Saah Philip Saksa Scott Stephens Yanjun Su Adriana Sulak **Richard Sweitzer Doug Tempel** Craig Thompson Ben Tobin Stefania Di Tommaso Perry de Valpine Sheila Whitmore Patrick Womble Hong Yu Feng Zhao

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Glossary of selected terms used in this report

We have defined the following terms used in the report as follows:

Collaborative Adaptive Management (CAM): The participatory process as implemented in SNAMP. CAM is a science-driven, stakeholder-based process for decision-making while dealing with the scientific unknowns inherent in many physical and biological systems. In the SNAMP process, adaptive management incorporates stakeholder participation to improve the amount and breadth of information for decision-making, create meaningful engagement and build mutual understanding, learning, and trust.

Fire Severity: A ranking of fire effects on the landscape from low to high, as described below.

Low severity fires generally stay low to the ground, clearing out underbrush, thin young trees, and forest floor biomass. Most leaves or needles remain on trees, even though some may be brown and the lower branches may be scorched. Low-severity fires are considered beneficial to maintaining a healthy forest by lessening the chance of future high severity wildfires.

Moderate severity fires burn into the forest canopy and consume the needles and leaves from many, but not all, trees. These fires also consume a portion of the forest ground cover. Since moderate severity fires typically leave the biggest and most vigorous trees alive, some forest canopy cover will remain.

High severity fires consume from half to all of the forest canopy and biomass on the forest floor. The ash from high severity fires offers little protection from rainfall and erosion, and under certain conditions, a water-repellent (or hydrophobic) layer is formed in the soil that decreases water infiltration and increases runoff and soil erosion, especially in the first rains following the fire.

- "Neutral Third Party" role: University research and extension staff participated in SNAMP as a "third party" with the goal of providing independent or "neutral" information to the adaptive management process. This included scientific information and the facilitation and gathering of stakeholder input.
- Strategically Placed Land Area Treatments or "SPLATs": Based on the theoretical demonstration that disconnected fuel treatment patches across a landscape can reduce the overall rate of fire spread and intensity. The Sierra Nevada Forest Plan Amendment calls for the strategic placement of SPLATs across the landscape to interrupt potential wildfire spread, reduce the extent and severity of these fires, and therefore improve the continuity and distribution of old forests across landscapes.

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