**Natural Hazards
and Earth System
Sciences**

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Discussions

Interactive comment on "Fine scale assessment of cross boundary wildfire events in the Western US" *by* Palaiologos Palaiologou et al.

Anonymous Referee #1

Received and published: 21 March 2019

The manuscript entitled "Fine scale assessment of cross boundary wildfire events in the Western US" aims to analyze cross-boundary wildfire exchange among major land tenures on public and private lands in western US by using fire simulation modeling. The authors also evaluated how ignition types and land tenure characteristics affect wildfire transmission and exposure patterns, and estimated wildfire exposure in terms of incoming or self-burning fires at the community level.

Overall, the work is interesting and the subject addressed in this manuscript is worthy of investigation. The manuscript provides an interesting methodology to inform wildfire risk assessment and to prioritize fuel management in areas at high-risk. The manuscript is well written and clear. Methods and results are adequately described and presented, and the discussion and conclusions are justified by the data presented.

A few points should be better addressed or improved by the authors and can improve the quality of the manuscript.

I recommend a minor revision before publication.

Specific Comments

Pag. 2 – L3-4 (and others): Please order the references following chronological and alphabetical order

Pag. 2 – L26: I suggest replacing "to predict future levels" with "to analyze"

Pag. 3 – L22: Please define the meaning of "fire regimes 1 and 3"

Pag. 4 – L9-11: Even if the FSim modeling approach proposed in this work was covered in previous works, I recommend to provide more information (e.g.: resolution of input and output data; settings of the simulated spot fires; etc.)

Pag. 6 – L5: Please replace "define" with "defines"

Pag. 11 – L27: Please add space between "2012)" and "Human"

Pag. 12 – L13: Do the author mean "extent"?

Pag. 14 – L12: Do the authors mean "fuel model"?

Figure 2b: In the upper graph, please modify the y-axis adopting the same scale (0-300) used in Figure 2a.

Figure 3: Please specify the acronyms of the land tenures in the Figure legend. In addition, make uniform the size of the graphs (for example, OR graph is larger than WA graph size), so that the graph size will not be different depending on the State

Figure 4: Please replace "By" with "by"

Figure 5: The color used for National Forests (grey) is too light and does not help readers: please use a darker grey

Figure 6: In the x-axis, please use thousand ha, rather than ha

Figure 7: Again, the grey is too light. Moreover, please replace "to show" with "show"

Figure 8: Please specify the acronyms of the land tenures in the Figure legend.

Figure 9c: Considering that the percentage area covered by slash/burn seems very limited, the authors could remove it from both Figure and legend.

Table 1: Please explicit the full name of each land tenure, before or after the acronym

Table B1: This supplementary table is not mentioned in the text.

Table B2: Please consider to replace "0" with "N/A.", as you did in Table B1

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2019-56, 2019.