

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

**Palaiologos Palaiologou et al.**

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7. Why do you think small parcels tend to receive higher amounts of incoming fire?

Reply: A simplified explanation on the comment is the following: outgoing fires, because they are ellipses, leave the parcel quickly if it is small parcel and don't burn much. However, when a small parcel is consumed by a fire from elsewhere it is burned by the large flaming front. Please see the figure below. The simulated fire in the figure is an outgoing National Forest fire, which becomes incoming to the smaller state parcel. On a percentage basis, not that much of the National Forest is burned, but state parcel is consumed. More details can be traced in our previous work (Ager et al. 2015, 2018)

C1

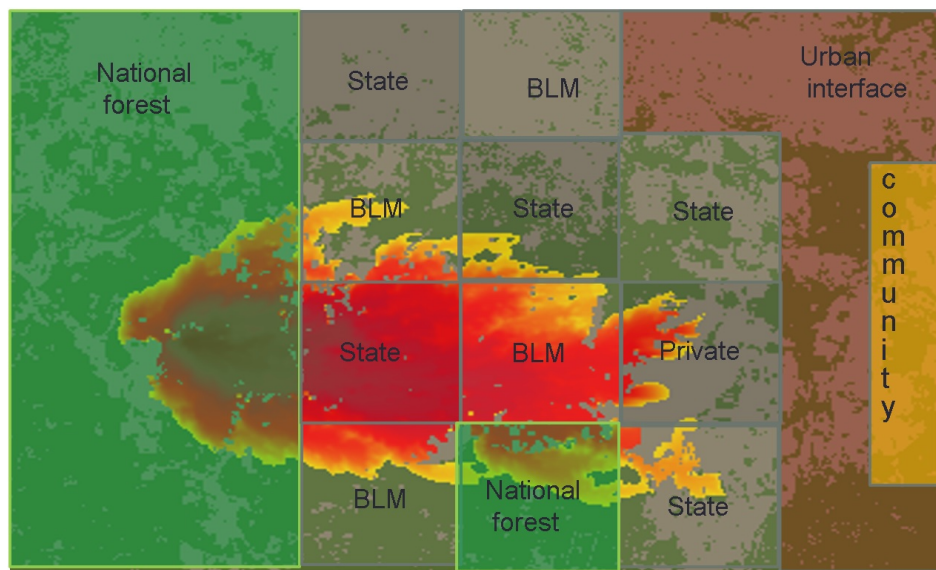
Ager, A. A., Barros, A., and Day, M. A.: Understanding the transmission of wildfire risk on a fire prone landscape: A case study from Central Oregon, Geophysical Research Abstracts, 17, EGU2015-15128, 2015.

Ager, A. A., Palaiologou, P., Evers, C. R., Day, M. A., and Barros, A. M. G.: Assessing transboundary wildfire exposure in the southwestern United States, Risk Analysis, 38, 2105-2127, <https://doi.org/10.1111/risa.12999>, 2018.

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

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**Fig. 1.**