# **Supplement**

**Figure S1**. (**A**) Predominant forest species groups making up 97% of forested area. Hatching represents the fraction of gridcells where that species is the majority (>50% gridcell forested area). (**B**) Distribution of species structural metrics from the TreeMap *Tree Table* including the proportion of live basal area (BA) and trees/pixel (TPP).

A close-up of a graph

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**Figure 2.** Aggregation of VIIRS active fire detections (AFD) onto a regular grid for the Williams Fork Fire (2020). (**A**) Pixel centers of AFD from both satellites (S-NPP and JPSS-1); (**B**) Pixel ground area based on swath position (relative nadir position); (**C**) Maximum FRP based on fractional overlap aggregation.

A blue and black map

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**Figure S2.** (A)Distribution of pixel ground area in square kilometers from VIIRS active fire detections. (B) The mean pixel ground area at each swath sample location. The further off-nadir a pixel is, the greater its ground area.

**A graph and diagram of a graph

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**Figure S3.** Distribution of VIIRS pixel area overlaps with the regular 375 m2 grid of the Southern Rockies showing the cutoff value (>50% gridcell overlap) as a red dashed line and the 100% overlap threshold as a dashed grey line. Only gridcells with *at least* 50% overlap with VIIRS detections were retained for the analysis to limit the contributions of gridcells with very small fractional overlap. 12,639 gridcells were removed from the analysis.

A graph with numbers and a line

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**Figure SX.** Observed species co-occurrence matrix from the TreeMap Tree Table for all forest species considered to be common in the Southern Rockies.

A diagram of different colored squares

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**Figure SX.** Correlation matrix for all variables explored for the modeling procedure. Variables which were included in the models were assessed for collinearity.

**A graph of a triangle

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**Figure SX.** Posterior distribution of effects for all non-forest type fixed effects.

**A graph of different colored lines

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