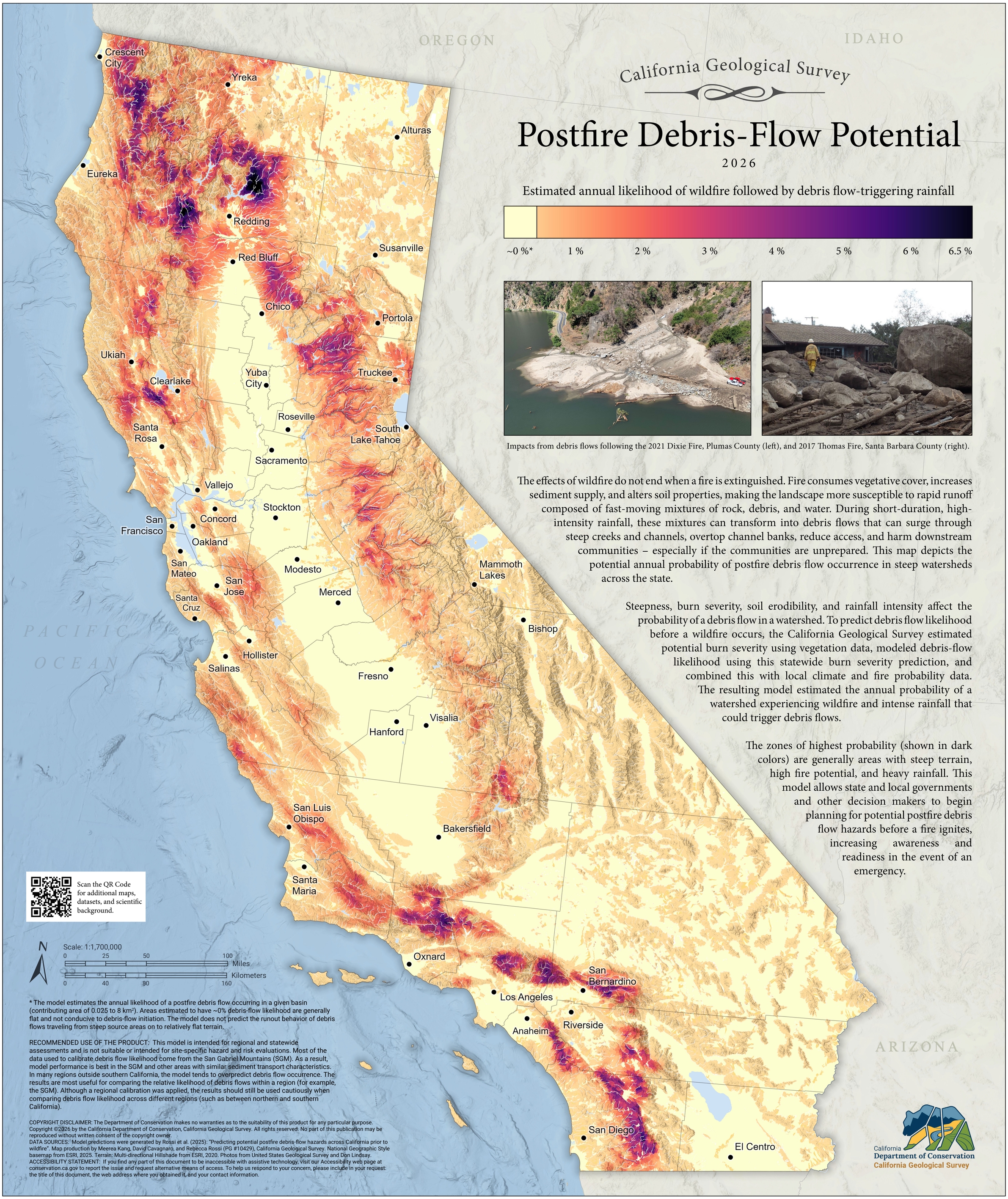

* The model estimates the annual likelihood of a postfire debris flow occurring in a given basin (contributing area of 0.025 to 8 km^2). Areas estimated to have ~0% debris-flow likelihood are generally flat and not conducive to debris-flow initiation. The model does not predict the runout behavior of debris flows traveling from steep source areas on to relatively flat terrain.

RECOMMENDED USE OF THE PRODUCT: This model is intended for regional and statewide assessments and is not suitable or intended for site-specific hazard and risk evaluations. Most of the data used to calibrate debris flow likelihood come from the San Gabriel Mountains (SGM). As a result, model performance is best in the SGM and other areas with similar sediment transport characteristics. In many regions outside southern California, the model tends to overpredict debris flow occurrence. The results are most useful for comparing the relative likelihood of debris flows within a region (for example, the SGM). Although a regional calibration was applied, the results should still be used cautiously when comparing debris flow likelihood across different regions (such as between northern and southern California).

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DATA SOURCES: Model predictions were generated by Rossi et al. (2025): "Predicting potential postfire debris-flow hazards across California prior to wildfire". Map production by Meerea Kang, David Cavagnaro, and Rebecca Rossi (PG #10429), California Geological Survey. National Geographic Style basemap from ESRI, 2025. Terrain: Multi-directional Hillshade from ESRI, 2020. Photos from United States Geological Survey and Don Lindsay.
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