

County Selection for California Wildfire Mitigation Project

21 September 2021 (revised 12 July 2022)

Lake, Siskiyou, Tuolumne, Shasta, and San Diego Counties are prioritized as demonstration counties by identifying the overlap of high wildfire risk and high social vulnerability at the parcel and census-tract level. Fire risk, climate change, and census data were included in the analyses based on text and intent from AB 38 (Wood, 2019). Specific data layers were selected to maintain similarity to other government programs.

Method: Counties were ranked on 14 different factors, then each county received a Risk Ranking based on the sum of the 4 Risk factors and a Vulnerability ranking based on the sum of the 10 Vulnerability factors. The Final Ranking is based on the sum of the Wildfire Risk and Social Vulnerability Rank.

Wildfire risk and social vulnerability factors were calculated based only on the part of each county in a Fire Hazard Severity Zone (FHSZ) designated by AB 38 as eligible:

“Local responsibility areas located within a very high fire hazard severity zone...[or] State responsibility areas located within any fire hazard severity zone...”.

Wildfire Risk factors 1 & 2 are the total and percentage of assessor parcels in the FHSZ. Wildfire Risk factors 3 & 4 are the current and future fire probability averaged across the FHSZ. Current fire probability was drawn from the fire probability layer developed by [Pyrologix](#) and future fire probability was drawn from the [Westerling \(2018\)](#) analysis. These layers are regularly used in California state government, including use of the fire probability layer by CAL FIRE to generate the next FHSZ map and use of the climate-change layer in the 4th California Climate Change Assessment.

The 10 Vulnerability factors are the estimates of total and percent of individuals in the FHSZ in 5 categories listed by AB 38: residents over age 65, residents in poverty, residents with a disability, residents with limited English, and residents without a car. Percentages were obtained from [Center for Disease Control Social Vulnerability Index \(2018\)](#) and only include census tracts in the FHSZ. Each total equals the corresponding percent applied to the number of parcels in the FHSZ by county.

Total and percent were included for all factors to balance scores between large counties with potentially higher totals and small counties with potentially higher percentages. The factors were chosen from among commonly used data layers based on text and intent from AB 38, which asks for scoring based on:

- (1) Area and community vulnerability to wildfire.*
- (2) The impact of future climate risk factors on area and community wildfire vulnerability assessments.*
- (3) Factors that lead some populations to experience a greater risk to wildfire, adverse health outcomes, or an inhibited ability to respond to a wildfire, including socioeconomic characteristics of the areas or communities that would be protected by financial assistance...*

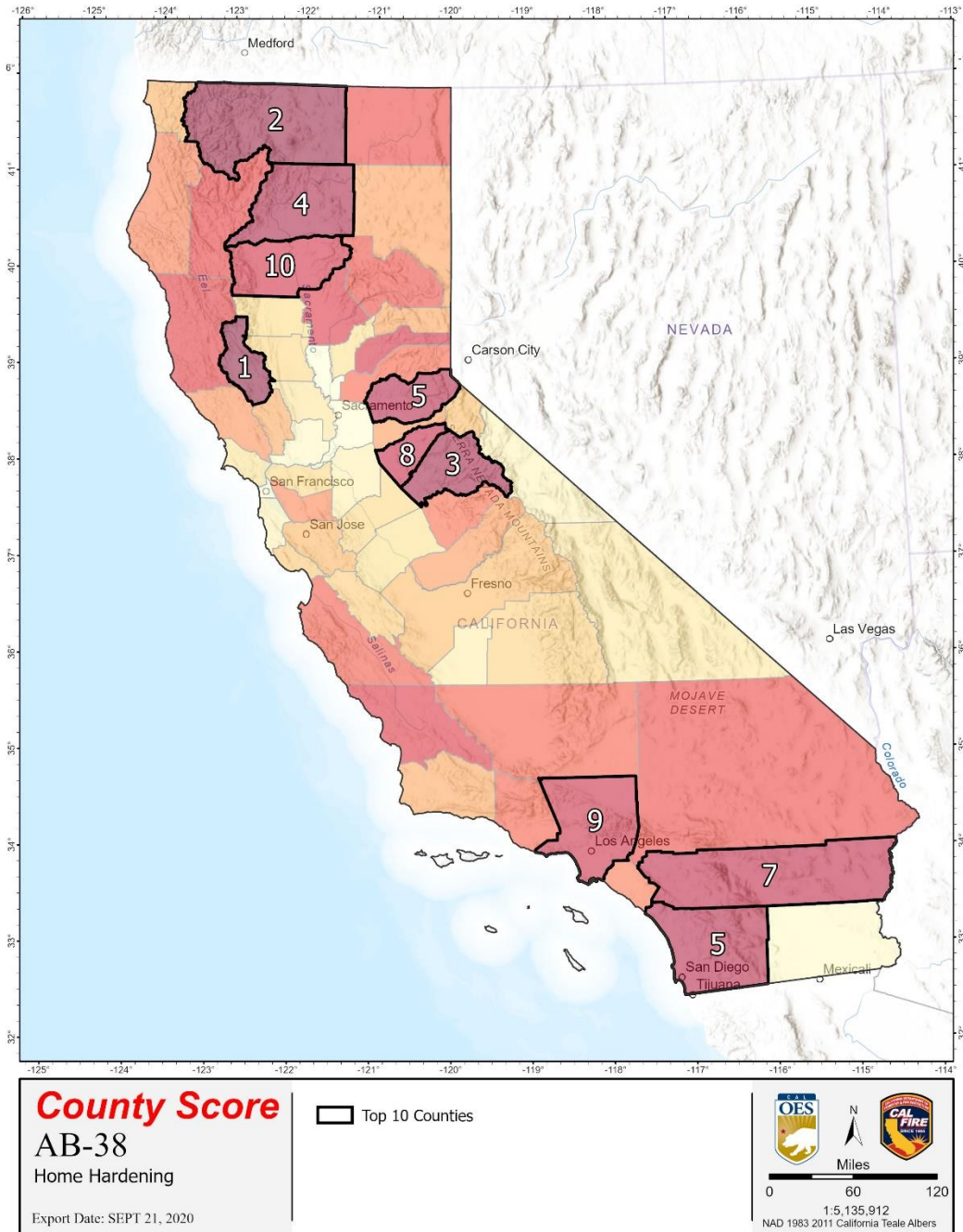


Figure 1. – Map of county scores with the top 10 scoring counties indicated by the dark outline.

Table 1—County rankings. Wildfire Risk and Social Vulnerability ranks are weighted equally and based on analyses of fire-prone areas in each county (Fire Hazard Severity Zones; FHSZ).

COUNTY	WILDFIRE RISK RANK	SOCIAL VULNERABILITY RANK	FINAL RANKING
Lake	4	1	1
Siskiyou	2	4	2
Tuolumne	1	11	3
Shasta	6	7	4
El Dorado	3	11	5
San Diego	4	10	5
Riverside	10	8	7
Calaveras	7	15	8
Los Angeles	19	5	9
Tehama	12	13	10
Nevada	10	16	11
Butte	21	6	12
San Luis Obispo	13	14	12
Mendocino	26	3	14
Trinity	7	23	15
Modoc	16	18	16
San Bernardino	25	9	16
Plumas	9	28	18
Monterey	17	21	19
Kern	38	2	20
Ventura	18	22	20
Placer	28	20	22
Mariposa	15	34	23
Orange	23	27	24
Humboldt	33	19	25
Alameda	20	35	26
Sonoma	40	17	27
Amador	28	31	28
Madera	36	23	28
Lassen	30	32	30
Santa Barbara	27	36	31
Sierra	14	49	31
Napa	32	33	33
Del Norte	37	29	34

Santa Clara	22	45	35
Fresno	43	25	36
Alpine	33	37	37
Santa Cruz	42	30	38
San Benito	23	51	39
Tulare	49	26	40
Colusa	35	42	41
Contra Costa	39	38	41
Stanislaus	31	46	41
Glenn	45	39	44
Merced	47	40	45
Yuba	40	47	45
Marin	48	41	47
Yolo	44	48	48
Inyo	52	42	49
Kings	54	44	50
San Joaquin	45	55	51
San Mateo	51	50	52
Mono	50	53	53
Solano	53	54	54
Imperial	56	52	55
Sacramento	55	56	56
San Francisco	57	57	57
Sutter	57	57	57