**Wildfire Risk Report Format and Methodology**

(A Fire and Wildfire Exposure Risk Manual - Updated July 07, 2025)

**Methodology**

**Background**: The data elements described contained in this report are derived from the Department’s biennial Personal Property Experience (PPE) data call. The purpose of the PPE is to obtain residential property insurance data for each policy in-force in California at any time during the three calendar years immediately prior to collection. Insurers with $10M or more in direct written premiums for residential policies in lines of business 1.0 (Dwelling Fire), 4.0 (Homeowners), or 12 (EQ only) for a given calendar year are required to report.

**Weighted Values**: Because insurers provide data on all policies in-force during the prior three calendar years (as opposed to all policies currently in-force on a specific date), it is possible that a dwelling could be double-counted if a policyholder switched carriers during the calendar year. In order to address this issue, we weighted the values of certain data elements by the fractional portion of the year that a structure was insured. In the current data set, we weighted the average amount of Coverage A, the average amount of Coverage C, the average fire risk, and the average PPC score.

**Example of Weighted Values**: Imagine a ZIP code with two insured homes. Policyholder A purchases Policy A1 with $250,000 of coverage from January 1 through June 30. She then switches to a different carrier, and purchases Policy A2 with $250,000 of coverage from July 1 through December 31. Policyholder B has Policy B1 with $500,000 of coverage but he stays with the same insurer from January 1 through December 31. If we took a simple average of the coverage amounts in the ZIP code, we would get an average of (250,000 + 250,000 + 500,000)/3 = $333,333. This is an underestimate, because Policyholder A's property is represented twice in the average. Had Policyholder A not switched carriers, we could calculate the actual average coverage amount as (250,000 + 500,000)/2 = $375,000.

We fix this issue by weighting the coverage amount by the fraction of the year the structure was insured. For example, Policy A1 was insured for 6/12 months = 0.5 years, Policy A2 was insured for 6/12 months = 0.5 years, and Policy B1 was insured for 12/12 months = 1 year. Using those weights, we would get the following weighted coverage amounts: Policy A1: 250,000\*0.5 years = 125,000, Policy A2: 250,000\*0.5 years = 125,000, and Policy B1: 500,000\*1 year = 500,000. To get an average, we sum up the weighted amounts, and divide by the total number of structure-years insured in the ZIP code: (125,000 + 125,000 + 500,000)/(0.5+0.5+1) = $375,000.

**Policy Records vs. Loss Records**: The report combines data from two separate records provided by the insurers. The policy record provides the details of an individual policy, including the policy type, the effective dates of the policy, the coverage amounts, ZIP code of the insured property, the amount of premium earned for the policy, and (if available) the PPC and fire risk classification. This policy record is unique for each policy, and cannot repeat within a calendar year. These policy-specific details are provided for each calendar-year. Between 2018 and 2020, insurers reported the amount of coverage available at the end of calendar year, or the last day the policy was in-force, if the policy was cancelled/non-renewed before the end of the calendar year. From 2021 and on, insurers reported the amount of coverage in-force at the beginning of the calendar year, or the first day the policy was in-force, if the policy was written after the first day of the calendar year.

Insurers also report a separate loss record for each claim reported for a policy. These claims are reported on an accident/occurrence-year basis, which means only claims that occurred during the given calendar year are included. The loss record is linked to the policy record by a unique policy ID. However, since a policy can report multiple claims during a calendar year, a given policy ID will repeat in the loss records for every claim that occurred during the calendar year, and a policy ID may not occur at all if the policy reported no claims. For each claim, insurers estimate the amount of direct loss incurred for the claim based on the type of coverage (Coverage A or C). Incurred losses include the total amount of paid losses and case loss reserves, are gross of subrogation recoveries, and exclude incurred but not reported (IBNR) losses and loss adjustment expenses. All losses were evaluated as of January 31, of the reporting year, which means the losses from the calendar year immediately preceding the year the data was collected had less time to develop than the older year losses. However, the data from the most recent calendar year will be updated in the next report to allow those losses time to develop.[[1]](#footnote-1) For example, in this 2024 report, the losses from calendar year 2023 (evaluated as-of January 31, 2024) will be updated in the 2026 report (evaluated as-of January 31, 2026).

**Format of the Report**

**Policy Type**: The report contains data from 6 different policy types.

1. **Homeowners’ (HO)** type policies, which cover 1-4 dwelling-units in which the owner lives in one or more units (e.g., ISO HO-1, 2, 3, 5, 8, or equivalent).
2. **Renter's/Tenant's (RT)** type policies, which cover the personal property of persons renting or leasing apartments, condominium-units, or dwelling-units (e.g., ISO HO-4 or equivalent).
3. **Condominium Unit Owner (CO)** type policies, which covers a specific unit within a condominium building or co-op (e.g., ISO HO-6, or equivalent).
4. **Mobile Home (MH)** type policies, which covers the structure and contents of a manufactured or mobile home (e.g., ISO HO-7, or equivalent).
5. **Dwelling Owner-Occupied (DO)** type policies, which cover 1-4 dwelling-units in which the owner lives in one or more units (e.g., ISO DP-1, 2, 3 or equivalent).
6. **Dwelling Tenant-Occupied (DT)** type policies, which cover 1-4 dwelling-units that are rented to a tenant for a whole or part of a year (e.g., ISO DP-1, 2, 3 or equivalent).

**Coverage**: The report contains the average coverage amount and the amount of losses for two coverage types.

1. **Coverage A** covers damage to the structure of the dwelling-unit, excluding any additional structure coverage (e.g., extended replacement cost coverage or other structures).
2. **Coverage C** covers damage or loss of personal property, excluding any additional contents coverage (e.g., additional coverage for specific valuables such as jewelry or furs).

**PPC Scores and Fire Risk Classification[[2]](#footnote-2)**:

1. **PPC scores** refers to the ISO Public Protection Classification program, a Verisk product, that scores an address between 1 (best) and 10 (worst). The scores reflect municipal fire protection efforts available to that property (e.g., distance to primary responding fire station).
2. **Fire Risk Classification** refer to the output of a commercial tool that models a property’s exposure to fire risk, typically measured by environmental/community level factors around a property such as fuel, slope, and road access. The output may be a numerical score within a range, or a category (e.g., negligible, low, moderate, high, very high/extreme). To calculate an "average" fire risk score in each ZIP code, scores were converted to categories, and we assigned each category a value between 0 to 4. Negligible risk was assigned a score of 0, low a score of 1, moderate a score of 2, high a score of 3, and very high/extreme a score of 4. Thus, the closer the average fire risk in a ZIP code is to 4, the more extreme the fire risk.

**Loss Data**: The loss data is broken down into 8 categories, based on the combination of 3 dichotomous variables: Coverage Type (Coverage A or Coverage C), Loss Type (Fire or Smoke), and Cat Loss (Catastrophic or Non-Catastrophic Event). For each category, the amount of incurred loss and the number of claims is provided.

**CAT and Non-CAT**: In general, a catastrophic disaster (**CAT**) is defined as an “event whose losses are very large and very infrequent such that their inclusion in a normal rate level review exercise would severely distort the estimation of future expected losses.”[[3]](#footnote-3) When classifying claims as catastrophic, insurers are asked to use the definition from Verisk’s Property Claim Services as “an event [that] is likely to cause more than $25 million in damage in the United States and affect a significant number of policyholders and insurers.”[[4]](#footnote-4) Otherwise, insurers categorize claims using their internal catastrophe load classification used in ratemaking (10 CCR§ 2644.5). However, starting with data from 2021, regardless of definition used, any claims arising from or related to any and all fires for which a state of emergency has been declared by the Governor of California must be classified as catastrophic. The remaining losses not designated as CAT losses are coded as non-catastrophic (**Non-CAT**) losses.

**Layout of the Report**

The report is laid out using a “pivot table”, which allows users to dynamically group and view the data based on different fields in the report. Within the table, the data is organized in a hierarchy, starting with the calendar year, then policy type, county, and finally ZIP code. At each hierarchical level, a subtotal is calculated for each category in that level, and at the bottom of the report is a grand total for the entire table. The plus (“+”) and minus (“–”) buttons are used to expand and collapse the display of detail data within the categories at each level. Clicking the plus button expands a category, showing subcategories or individual ZIP codes. Clicking the minus button collapses the category, hiding the detail.

At the top of the report, there are five “slicers”, which are interactive filters that represent the unique values within the selected fields. All slicers can be used together to filter the report to a specific view of the data. However, since the slicers are dynamic, the values in the slicer will update based on the views selected in the other slicers. For example, if a county is selected using the County slicer, then only ZIP codes associated with that county will appear in the ZIP Code slicer.

1. The “**Source**” slicer has three mutually-exclusive options. Selecting “All Companies” aggregates data from all companies that met the reporting threshold, regardless of whether they reported a fire risk classification or PPC score. As such, the “Average PPC Class”, “Average Fire Risk”, and counts of negligible to extreme fire risk exposures will be null. Selecting the “Fire Risk Scores” option aggregates data from the companies that reported fire risk scores/categories, and thus the “Average Fire Risk” and counts of low to extreme fire risk exposures will populate in the table. Finally, selecting the “PPC Scores” option aggregates data from the companies that reported a PPC score, and the “Average PPC Score” field will populate with data. Note that companies may report both a fire risk classification and a PPC score, either one of those fields, or neither.
2. The “**Calendar Year**” slicer filters the data to aggregate by a single calendar year. Multiple calendar years can be selected by toggling the “Multi-Select” button in the upper right corner of the slicer.
3. The “**Policy Type**” slicer filters the data to aggregate by the selected policy type, using the acronyms defined earlier. Multiple policy types can be selected using the “Multi-Select” button.
4. The “**County**” slicer filters the data to aggregate by a single county, though multiple counties can be selected using the “Multi-Select” button. Use the scrollbar to move through the list.
5. The “**ZIP Code**” slicer filters the data to a specific ZIP code, though multiple ZIP codes can be selected using the “Multi-Select” button. Use the scrollbar to search the entire list. Only ZIP codes with reported data will be displayed. In other words, the list does not include every possible ZIP code in California, but only the ones where there is data to display. Since ZIP codes can overlap with multiple counties, ZIP codes were assigned to a single county using the USPS City State Product for California.
1. The exception is losses from 2019, which were evaluated as-of January 31, 2020, and were not updated. [↑](#footnote-ref-1)
2. These scores and classifications reflect the fire risk for a particular insured property, which are then aggregated together to create an average. These are not the scores or classifications that would apply to all homes in a given ZIP code. [↑](#footnote-ref-2)
3. Walters, M. A. (2007). *Catastrophe ratemaking*. Casualty Actuarial Society Study Note. [↑](#footnote-ref-3)
4. <https://www.verisk.com/4a5267/siteassets/media/pcs/pcs-consolidated-methodology-paper.pdf> [↑](#footnote-ref-4)