

# The Mercury News

## What South Bay cities are most at risk for natural disasters?

Santa Clara County's hazard mitigation report offers a peek into the county's emergency planning



A Lick Observatory building destroyed by the SCU Lightning Complex Fire atop Mount Hamilton, Calif., on Thursday, Aug. 20, 2020. (Doug Duran/Bay Area News Group)

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As more than 15,000 homes burned across the greater Los Angeles area the last two weeks, the all-too-familiar fear of whether a similar urban firestorm could blaze through the South Bay was at the forefront of many residents' minds.

Four-and-a-half-years ago, the [SCU Lightning Complex fire burned](#) nearly 400,000 acres along Santa Clara County's border and through five neighboring counties. In 2017, roughly 14,000 San Jose residents fled from their home as

Coyote Creek spilled over, [causing roughly \\$100 million in damage](#). Blistering heat waves and powerful atmospheric rivers that topple trees onto homes and cars and cause landslides in the hills have also become annual occurrences. But how much risk does each of Santa Clara County's 15 cities, with their varying terrains, have of being affected by wildfires, floods or even a tsunami? [A county hazard mitigation report](#) that analyzes different disaster threats and how they could affect residents and infrastructure sheds some light. The more than 500-page document is federally mandated by the Federal Emergency Management Agency in order for the county to obtain grant funding. It is refreshed every five years, though updates occur along the way. The most recent update to the report was approved last year.

The report includes a hazard risk index for each type of climate disaster that is based on four factors: the probability of future events, the impact on life, property impact and the percentage of the area that would be impacted. Each item is scored on a scale of zero to three and is weighted at a different level to calculate an overall risk number.

Fourteen of the county's 15 cities — Monte Sereno didn't participate — utilized the formula to assess risks ranging from earthquakes and wildfires to dam failures and climate change impacts. The higher the number, the greater the assessed risk.

For instance, Los Gatos and Los Altos Hills, both highly wooded areas, ranked high in wildfire risk, with a 2.55 and 2.1, respectively. The city of Santa Clara topped the list for earthquake risk at 3, with Gilroy, Morgan Hill and Sunnyvale close behind at 2.9. Cities such as Palo Alto and Milpitas, which have a closer proximity to the San Francisco Bay than others, were ranked higher for risk of climate change impacts than their more inland counterparts as sea levels continue to rise.

Michael McKeon, a program specialist in the county's office of emergency management, called it a "qualitative analysis." The report itself states that it helps give cities a "sense of hazard priorities."

"There's an element of perception," Michael McKeon, a program specialist in the county's office of emergency management, said of analyzing the data. "It's that local jurisdiction's perception of how much that hazard poses a risk to their jurisdiction."

Based on the average of those numbers, earthquakes posed the highest risk for the county as a whole, followed by wildfires, smoke and air quality issues, according to the report. Inclement weather — which includes atmospheric rivers, high winds and extreme temperatures — drought and impacts from climate change, such as rising sea-levels, were listed as a moderate risk. Dam failure, floods and landslides were delineated as a lower risk, with the threat of a tsunami at the lowest rung because only parts of the county would be impacted.

The hazard risk index is just one part of the county's emergency planning efforts. The detailed report also includes more granular information based on FEMA maps on issues such as how many residents in each city could be impacted in the event of a 100- or 500-year flood. In San Jose, for example, more than 190,000 could be exposed in a "500-year flood," which means such a flood has a 1-in-500 chance of occurring in any given year.



San Jose Fire Department rescuers evacuate the last residents from their homes along the flooded streets on Welch Ave and Needles Drive near Kelley Park in San Jose, Calif., on Tuesday, Feb. 21, 2017. (Josie Lepe/Bay Area News Group)

Robert Olshansky, a visiting professor at UC Berkeley's Department of City and Regional Planning, believes that these maps are a better way to assess risk than the widely used hazard indexes.

“It’s useful to have the actual scientific map, which has the full range of probabilities so you can see where the 200-year flood is going to be and the where the 500-year flood is going to be,” he said in an interview.

Olshansky said that condensing risk into one number isn’t “meaningfully using the quantitative information. It’s changing it into a qualitative judgement by somebody.”

Jackie Koci Tamayo, a senior emergency planning coordinator in the county’s office of emergency management, said that the hazard mitigation plan is also reported to the state and helps it inform what is called the [MyHazards map](#). Residents can input their address to learn more about whether their home is in a hazard zone for floods, fires or landslides.

For Dana Reed, the county’s director of the Office of Emergency Management, the fires that are burning across Los Angeles are a sign that wildfires aren’t just contained to a season anymore, and residents need to be prepared.

“This is not going to change,” he said. “Each community, each entity needs to continue to really work on messaging, preparedness and looking for opportunities to increase that preparedness and increase that awareness.”

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